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NAVAL WARFARE PUBLICATION
NAVAL OPERATIONAL
PLANNING
NWP 11 (Rev. D)

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS

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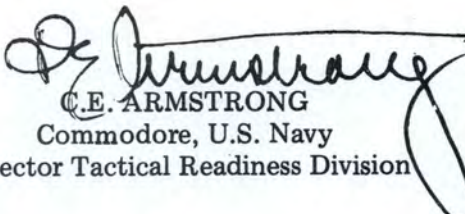


DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, D.C. 20350

May 1984

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C.E. ARMSTRONG
Commodore, U.S. Navy
Director Tactical Readiness Division

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Naval Operational Planning

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PREFACE

NWP 11 (Rev. D) provides detailed guidance for planning naval operations and preparing operation plans and orders. All naval procedures for issuing written orders and plans are incorporated in this publication to provide a single-source guide to naval operational planning. This publication also addresses general operational (OPGEN) messages and outlines how the Naval Planning System integrates with the Joint Operational Planning System.

The publication has six parts and six appendixes. Part I sets forth the principles and explains the stages in the military planning process from the estimate of the situation through supervision of the planned action. Parts II through VI deal with specific fields of operational planning: logistics, communications, intelligence, psychological warfare, and crisis action and operational reporting. Appendixes A through E contain recommended outlines and forms, including those adopted by the Joint Chiefs of Staff for interservice use. Appendix F provides a sample solution of an operation problem that requires tactical and logistic planning. It illustrates a practical application of steps in the planning process for naval operations.

NWP 22-1, The Amphibious Task Force Plan, describes the preparation of plans and orders for amphibious operations and provides a sample of a detailed operation order.

Throughout this publication, references to other publications imply the effective edition.

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PART I

Operational Planning

- Chapter 1 Military Planning Process
- Chapter 2 Commander's Estimate of the Situation
- Chapter 3 Development of the Plan and Directive
- Chapter 4 The Directive Format
- Chapter 5 Supervision of the Planned Action

CHAPTER 1

Military Planning Process**1.1 BASIS FOR MILITARY PLANNING**

National military decisions are ultimately the responsibility of the President. Advice on defense matters is available to him from the National Security Council, whose purpose is to provide him with a balanced, coordinated, and continuing review of military requirements in the light of current political, economic, and military considerations. National security policies approved by the President provide the policy guidance for the development of supporting military plans.

1.2 NAVAL OPERATIONAL PLANNING

Unified and specified commanders develop basic war plans that are based on "mission-type" directives promulgated by the Joint Chiefs of Staff. The naval component commanders of unified and specified commands prepare supporting operation plans. Their subordinate commanders develop detailed operational plans based on assigned tasks.

1.2.1 Responsibility for Planning and Accomplishing a Mission. The commander charged with a mission bears sole responsibility for its satisfactory accomplishment. He is responsible for the movement, support, protection, coordination, and control of his forces for accomplishment of his mission with minimum cost and effort. Since the directive he promulgates must lead to the accomplishment of his assigned mission, he must transmit instructions and essential information so that his subordinates can perform their tasks intelligently. In effect, the assignment of a mission to a commander confronts him with a problem to solve in which he has three major functions:

1. Recognition and interpretation of his mission and its significance
2. Solution of his problem through the use of his planning resources
3. Exercise of his judgment through command and control measures as the planned operation is executed.

1.2.2 Phases in the Planning Process. The commander's functions are reflected in the following three major phases of the military planning process.

1.2.2.1 Commander's Estimate of the Situation. The commander recognizes his problem, examines all methods (courses of action) for solving the problem, and, on the basis of this examination, selects a course of action which offers the highest probability of successfully accomplishing his mission. The selected course of action is termed the commander's decision.

1.2.2.2 Development of the Plan and Directive. The commander develops and assembles information in sufficient detail to show how the decision will be put into effect and to permit proper supervision of the operation. He then communicates his instructions to his subordinates and other interested commands in a directive.

1.2.2.3 Supervision of the Planned Action. During the planning phase, the commander reviews supporting plans of subordinates, determines the adequacy of available and planned support, and ensures that subordinate commanders have attained an adequate readiness posture. During the execution phase,

he determines if the operation is going as planned and ensures that appropriate revisions are made to plans and orders.

1.2.2.4 Sequence of Phases in the Planning Process. The sequence of phases in the planning process is shown in Figure 1-1. Solid lines show the normal sequence of planning effort; dotted lines indicate that there may be a need to review and rework phases already completed.

1.2.3 Flexibility in Planning. The procedures and suggestions given in Part I of this publication do not advocate a rigid method of solving military problems. No military situation is

static nor are the elements of any two situations precisely the same. Because the number of possible military situations is so very great, no set form, procedure, or order of solution can be prescribed for all. The steps described in Chapters 2 and 3 provide the commander some assurance that no essential aspect of a problem will be overlooked. Nevertheless, the commander's planning and the decision that results from it remain the commander's personal concern. No standard format can be permitted to restrict his thought processes or his personal method of arriving at a sound solution to his problem. He alone can judge the emphasis and scope he must give to the various elements of the situation. The results of the planned action

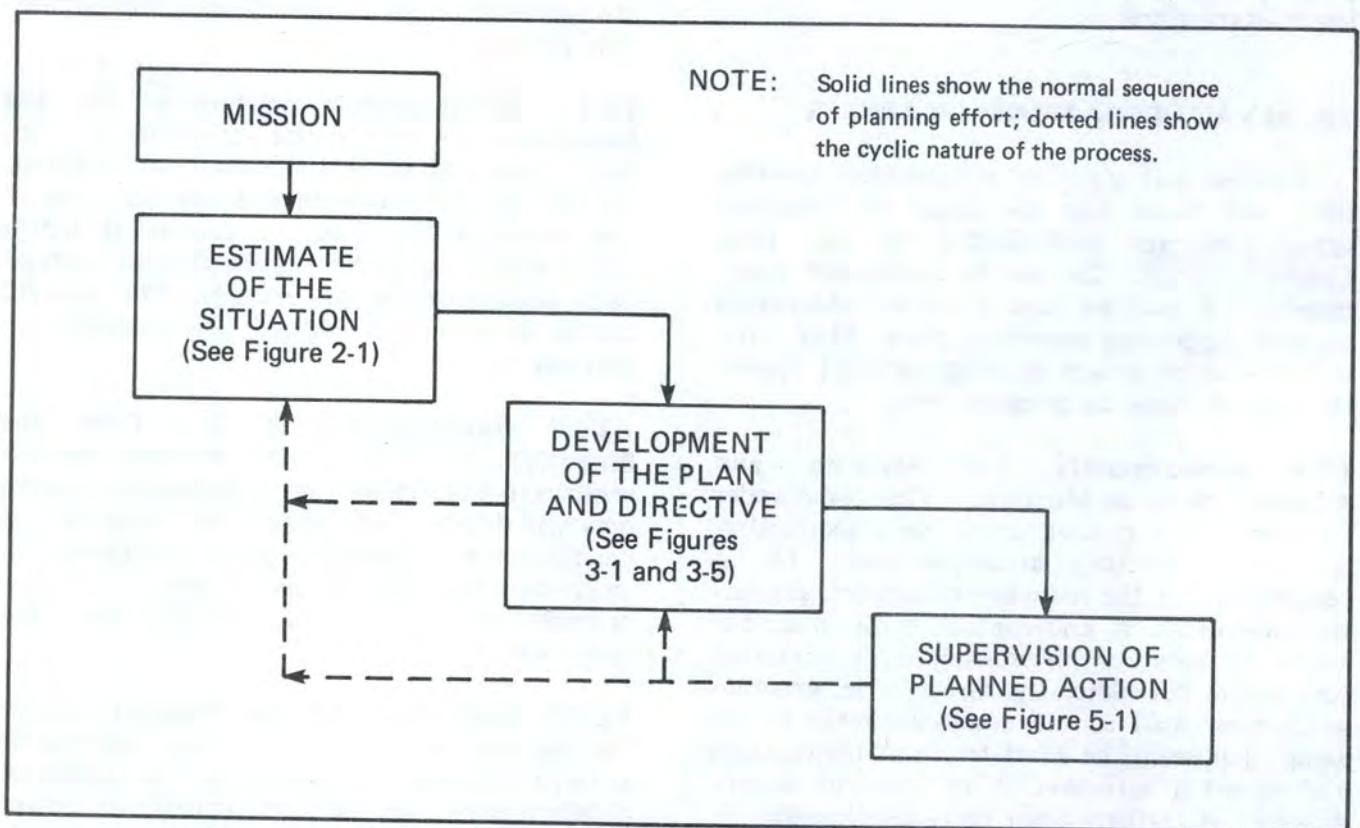


Figure 1-1. Phases of the Military Planning Process

are the final measure of the soundness of his judgment. However, once the commander's estimate of the situation and the development of the plan phases are complete, the commander is bound by prescribed format for promulgating his directive.

1.2.4 Staff Planning Schedule. The time available to prepare a plan and to issue a directive will vary with the situation. The commander and his staff may require days or weeks to prepare plans for a large-scale operation. On the other hand, instant action may be called for in a tactical situation. The commander must be able to adapt his planning procedures to any situation.

In every case, the commander's plan must be prepared and his directive issued early enough for his subordinate commanders to prepare for the operation. Therefore, the commander should issue a planning schedule which establishes a time for the completion of each section of the plan. He should also set a time for issuing the directive and delivering it to subordinate and other commands.

A good planning schedule should show all tasks which the staff must perform. Many will be common to every operation, but there will always be exceptions or additional tasks. Therefore, it is an essential procedure to analyze the planning tasks, list them in the sequence in which they should be performed, and show the responsible staff division and the time for completion opposite each task. Such a schedule will serve as a check list and ensure that all planning tasks are accomplished. By reviewing the schedule periodically, the commander can determine the progress of the planning and coordinate the work of the staff divisions. Each staff division should also prepare a planning schedule, based on the overall staff planning schedule, to ensure that its tasks will be completed on time.

Typical staff planning schedules are shown in Figures 1-2 and 1-3. The projects indicated are not hard and fast; they need not coincide exactly with the formal steps of the planning process. Frequently they overlap and are interdependent or some commanders may prefer a different sequence. Figures 1-2 and 1-3 are representative staff planning guides and may be amended to meet the requirements of each commander. The schedule for the commander's estimate of the situation (Figure 1-2) indicates the cyclical nature of planning, since the commander and his staff have information available for preliminary planning. In an estimate of an unfamiliar situation, projects 4 through 7 might be eliminated or completed after project 9.

1.2.5 Use of Forms and Procedures. The forms and procedures in these chapters were developed for no greater purpose than to help the planner and the operational commander exploit professional skills and imaginative thought processes. However, when a commander decides to follow a format other than a standard format, he must ensure that his staff sections are aware of his modifications. If the procedures to be followed are not fully understood, work on some sections may not logically fit together in the planning and gaps, duplications, or conflicting instructions may result. The entire staff can produce a finished product most efficiently when definite guidelines have been established. Nonstandard procedures may delay the time when a commander can take full advantage of new staff members, if they first have to learn his particular planning system.

1.3 THEORETICAL PROBLEM-SOLVING

In many respects, an individual solving a military problem uses the same process he uses in solving any problem he encounters in everyday life. Faced with a problem, he studies all aspects of the situation, determines what must be done, then how to do it. The decision made, he acts accordingly, governing his action as the situation develops.

PLANNING PROJECT	ACTION NORMALLY TAKEN BY
1. Analysis of the mission	Commander
2. Summary of the situation	Commander (Assisted by Intelligence Officer)
3. Issue statement to staff (Summary of 1 and 2)	Commander (Directly or via the Chief of Staff)
4. Correlate existing intelligence concerning combat strengths and all other pertinent factors affecting the specific problem. Appraise strength and weakness factors.	Staff (Operations and Plans Officers coordinate action and compile data)
5. Preliminary estimate of enemy capabilities	Commander (Assisted by Intelligence Officer)
6. Tentative own courses of action	Commander (Assisted by Operations and Plans Officers)
7. Preliminary staff planning instructions. (To set forth commander's broad guide lines for tentative own courses of action and to direct preparation of staff estimates and correlation of added data required for the considerations affecting possible courses of action.)	Commander (Assisted by Chief of Staff and Operations and Plans Officers)
8. Prepare initial staff estimates and correlate added data for considerations affecting possible courses of action.	Staff (Coordinated by Chief of Staff or Operations and Plans Officers)
9. Conclusions as to characteristics of area of operations, relative combat power, strength and weakness factors, etc.	Operations Officer (Assisted by other Division Heads)
10. Enemy capabilities	Commander and Intelligence Officer
11. Own courses of action. (Include general broad concept of each course of action, as appropriate, and preliminary test for suitability and feasibility.)	Commander and Operations Officer (Operations Officer should previously consult with and obtain views of other Division Heads)
12. Analysis of opposing courses of action	Commander (Usually assisted by Operations and Plans and Intelligence Officers)
13. Comparison of own courses of action. (Include final tests for suitability, feasibility, and acceptability.)	Commander
14. Decision	Commander

NOTE: The above schedule is suitable for an operational commander confronted with a mission in an area where he and his staff have some degree of familiarity. In a completely novel situation, Projects 4 through 7 might be eliminated and Project 3 might include direction relative to estimates and correlation of data.

Figure 1-2. Typical Planning Schedule During the Estimate of the Situation

PLANNING PROJECT	ACTION NORMALLY TAKEN BY
1. Commander's broad concept of the operation, and assumptions	Commander
2. Chief of Staff's staff planning program and supplementary instructions	Chief of Staff
3. Determining component and friendly supporting operations	Chief of Staff and Operations Officer
4. Prepare detailed staff estimates and determine how each component operation is to be carried out	Staff (Division Heads take action in accordance with normal responsibilities and special instructions issued by the Chief of Staff. Usually coordinated by Operations Officer)
5. Determine task organization. Prepare supporting annexes	Operations (Should consult with and consider views of other Division Heads, particularly Logistics and Communications)
6. Assign tasks to subordinate commanders. (Draft for approval by Commander) Prepare concept and other supporting annexes	Operations (Should consult with other Division Heads)
7. Solve command and related problems. (Draft for approval by Commander) Prepare supporting annexes	Operations (Should consult with other Division Heads)
8. Compile information for subordinates. Prepare supporting annexes	Operations and Intelligence
9. Prepare the directive	Operations (Other Division Heads prepare and submit Annexes for which responsible)
10. Reproduction and distribution of the directive	Flag Secretary

Figure 1-3. Typical Planning Schedule During the Development and Preparation of the Directive

Philosophers and psychologist have provided a fairly comprehensive picture of thinking — the orderly process by which an individual arrives at a solution to a problem. The scientific method of problem-solving has seven steps:

1. Recognize the problem
2. Gather data
3. List possible solutions
4. Test courses of action
5. Select a final solution

6. Act

7. Monitor the action.

In general, the military planning process parallels the scientific method of problem-solving. In planning for an operation, the commander accomplishes all seven steps:

1. In the analysis of the mission, he must "recognize the problem."
2. For the considerations affecting possible courses of action, he must "gather data."

3. For the opposing courses of action, he must:

(a) "List possible solutions"

(b) "Test courses of action."

4. In the decision, he must "select a final course of action."

5. In issuing an operation plan or operation order, he must "act."

6. In supervising the planned action, he must "monitor the action."

The two procedures differ only in that ordinary problem-solving does not usually require an analysis of opposing courses of action. They are otherwise similar and have the same aim — to decide upon a course of action.

The extent to which a commander consciously applies the problem-solving steps and the orderliness with which he applies them vary according to his judgment, his temperament, his memory, and his study and experience in the problem field. A commander with a tactical problem that he has experienced in the past may reach the proper solution a split second after he becomes aware of the problem. Habit and doctrine replace the intermediate steps between recognition of the problem and its solution. A commander who is new to the situation, but equipped by study and familiarity with similar situations, may reach the same solution in only a little more time, by going through a mental process of matching and adapting his knowledge to the situation.

In complex situations, such as in planning for a large-scale operation, the individual members of a commander's staff prepare studies or estimates on portions of the commander's overall problem and reach solutions to, or draw conclusions from, the lesser problems. They present them to the commander, who must fit all of the pieces together. In

reaching his decision, the commander's thinking is colored and tempered by the judgment, temperament, personality, and communication skill of each staff member. The values and limitations of the thought processes and the forms used to describe them become increasingly apparent when one realizes that one individual's bias, imposed on that of another's, can have a magnification effect for good or bad.

Studies by psychologists have indicated other factors:

1. The memory may retain a distorted picture of facts originally impressed on it, so care must be taken that solutions are not based on inexact mental reconstructions of knowledge once held.

2. An individual's thoughts in problem-solving may run almost randomly up and down the steps of the "orderly process."

3. A creative imagination generally follows no conscious pattern.

4. Only after one has reached a solution can he go back and record the process according to standard format.

Studies in problem-solving have also illustrated the great value of standard forms:

1. They serve as guides to help prevent oversights and inaccuracies during planning.

2. When used as testing devices, after a decision is made, they help uncover flaws in reasoning.

The great danger lies in insistence on rigid adherence to format, which can stifle the creative and imaginative thinking so necessary for reaching solutions to unusual or unfamiliar problems and finding new and better solutions to old problems.

CHAPTER 2

Commander's Estimate of the Situation

2.1 SCOPE OF THE ESTIMATE

The commander's estimate of the situation is the basis of military operational planning. It is broadly defined as a systematic analysis of a situation for the purpose of determining the best course of action to pursue. The commander's estimate of the situation is the phase of the planning process in which the commander investigates all essential elements of the situation confronting him. When his estimate is complete, he has made his major decision and determined his broad concept of operations. Succeeding steps in the planning process involve detailed expansion and development of his broad concept; but the estimate has determined the general structure within which the details are fixed for planning.

The estimate is of great value to a commander who faces an unfamiliar situation and is very useful to any commander for proving or disproving preconceived ideas or concepts. The usefulness of an estimate depends on the commander's open-mindedness and professional judgment in weighing the facts upon which he bases his decision. His approach must be objective to avoid proving an idea without presenting any contrary evidence. The estimate should be as thorough as the complexity of the situation warrants. It may vary from a quick mental estimate to a carefully written document requiring days of preparation by the commander and his staff.

The estimate may vary considerably in scope with the position of the commander in the chain of command. At the highest echelons, estimates are likely to be broad in scope, resulting in plans that require extensive study and amplification by subordinate commanders. In lower echelons, since the latitude allowed a

subordinate commander is generally small, the scope of his estimates is correspondingly limited. Nevertheless, the procedure and principles for making an estimate are appropriate to all levels of command and to all types of plans, from the broad strategic plans of the top echelons to the detailed plans and orders of a junior unit commander.

The five major steps of the estimate establish the sequence for recording data and ideas:

1. Mission and its analysis
2. Considerations affecting possible courses of action
3. Analysis of opposing courses of action
4. Comparison of own courses of action
5. Decision.

Figure 2-1 illustrates the five steps of the estimate. Although the steps follow in logical sequence, they usually cannot be formulated in final and satisfactory form in this sequence. When working on later steps of the estimate, it is frequently necessary to return to earlier steps to expand material that is inadequate, add material that is found wanting, and discard material that is irrelevant. As the problem unfolds, it is often necessary to revise conclusions stated tentatively in earlier steps. In a problem area that is familiar to an operational staff, the staff may solve many steps with the commander providing broad guidance after he has analyzed the situation.

2.1.1 Form for the Estimate. The form for the commander's estimate of the situation (see Appendix A) establishes the logical sequence in

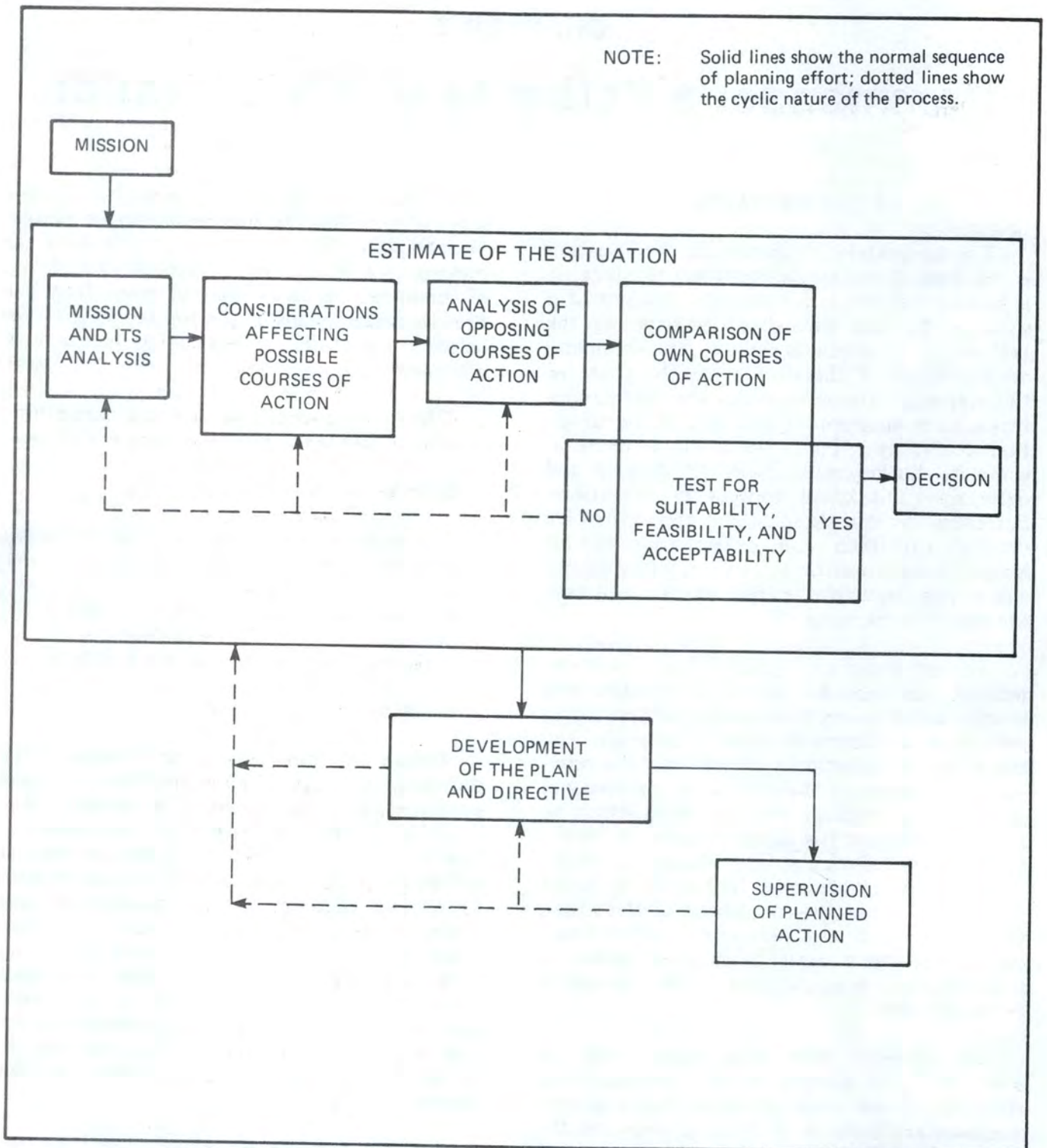


Figure 2-1. The Military Planning Process — Estimate of the Situation

which each element of a situation is considered. For Navy use, the form provides a more substantive development of the second step, "Considerations Affecting Possible Courses of Action." This step opens with "General Situation," a review of the facts outlining the situation as it is known to the commander, and closes with "Strength and Weakness Factors," a compilation of own and enemy strengths and weaknesses developed from all factors previously considered. For Navy use, the consideration of enemy capabilities and own courses of action occurs in the third step, rather than the second step.

Adherence to the form is not intended to restrict a commander's thinking or his personal methods of completing an estimate and arriving at a sound solution to a problem. Nor is it intended to represent the emphasis or scope in the mental process of solving a problem. A commander must expand or condense the scope of each step in the estimate according to his particular needs and the nature of his problem. Each detail listed for consideration may vary in importance for different operations. For example, an Arctic operation requires a more detailed study of climate and weather conditions than an operation in temperate zones. Nevertheless, the five major steps of the estimate should be applied generally to any military situation. If the standard form is modified, everyone involved must clearly understand the nature of the modifications (see paragraph 1.2.5).

2.1.2 The Objective and Physical Objectives. The principle of objectives is basic to the entire military planning process. The term *objective* is used by military planners in two different senses: abstract and concrete. (In the Dictionary of Military and Associated Terms, JCS Pub. 1, only the concrete sense of the term is given.) It is necessary, therefore, that the terms, *objective* and *physical objective* be clearly defined and understood before the estimate of the situation is examined.

In the *abstract sense*, the *objective* of an operation is the aim or end of the action taken. It may also be thought of as the accomplishment of assigned task(s). It implies that some form of action is being taken. For example, in "Neutralize enemy air forces on Bolo Island," the verb "neutralize" indicates action to be taken. When this action is complete, the enemy will be incapable of operating his air forces from Bolo Island.

The term *physical objective* is used in the *concrete sense* by naval planners for clarity. A physical objective is the focal point of the military effort in an operation; that is, it is a physical object whose presence and location dominates the attention of the forces involved. Note that, unlike the term *objective*, the term *physical objective* does not imply action. In the example in the previous paragraph, the objective is "Neutralize enemy air forces on Bolo Island." The physical objective is identified by deleting the action implied; in this case, the verb "neutralize." Thus, "Neutralize enemy air forces on Bolo Island" is the *objective* and "enemy air forces on Bolo Island" is the *physical objective*. The former suggests a situation to be created or maintained by military action; the latter identifies the focal point of the action.

The specific nature of a physical objective may range through all elements of war potential — troops, ships, bases, aircraft, supplies, and so forth. A physical objective can belong to friendly as well as enemy forces. It can also be a fixed geographic position of value as a base or operating area for future operations, to be used by own forces or denied to the enemy.

Relationships between the objective and physical objectives must be clearly understood. Action taken upon a physical objective must contribute to the objective of the operation; therefore, not all physical objectives need be addressed. For example, in a supporting or protective operation, a commander may not be as concerned with enemy physical objectives as he is with friendly physical objectives, since his operations revolve around the presence and

location of the friendly force he is tasked to support or protect. Thus, in a convoy escort mission, an escort commander may find it expedient to avoid action, insofar as possible, with one kind of physical objective — enemy submarines — in order to gain his objective — the safe and timely arrival of the convoy's ships and cargo. In this case, the convoy is his primary physical objective; he may consider enemy submarines as his secondary physical objective, even though the submarines are an active threat. In a striking force mission, such as in "Neutralize enemy air forces on Bolo Island," the striking force may take more action against enemy submarines, ships, and aircraft capable of interfering with the carrier's arrival at its launch point, than it devotes to the obvious physical objective — the "enemy air forces on Bolo Island."

It is advantageous to list physical objectives with great precision, because this contributes to a more thorough analysis. In the example, "Neutralize enemy air forces on Bolo Island," it might profit the commander to consider the enemy air forces on Bolo Island as one physical objective and the airfield on Bolo Island as another. Neutralization of either physical objective would achieve his objective, but with potential differences and options in the degree of fulfillment. If his force neutralizes the airfield (more specifically the runways), enemy aircraft on the island can be ignored, at least until the runways are repaired. If his force destroys the enemy aircraft, he may achieve his objective once and for all, unless the enemy has replacement aircraft that can be flown in. The commander must have a clear understanding of objectives and physical objectives to see all of the tactical options that are at his disposal.

2.2 STEPS IN THE ESTIMATE

The development of the estimate requires detailed and systematic study, if it is to be an effective and useful tool. The steps outlined in succeeding paragraphs are guidelines in the preparation of an estimate. Subparagraphing is used, since the estimate phase lends itself to a

formal outline. Paragraph 2.3 contains a summarized guide that can be used in developing estimates.

2.2.1 Step 1 — Mission and Its Analysis.

Before a commander can attempt a solution to an operational problem, he must acquire a thorough understanding of the problem. This understanding should include (1) the relationship of his problem to the ones faced by his superior and by other commanders in the operation and (2) the immediate and long-range effects desired. This understanding is obtained through a study of the mission; it usually entails more than a mere mechanical survey of the task and its purpose.

The extent to which a commander should analyze a mission is neither predetermined nor invariable. Sometimes a complete understanding of a mission can be gained at a glance, in which case no further analysis is necessary. Normally, however, a commander must examine all significant elements of a situation to acquire a complete understanding. He must analyze his mission within the framework of the general background of the operation, his superior's mission, and his own force's capabilities and limitations.

The paragraphs that follow set forth a recommended procedure for Step 1 of the commander's estimate.

2.2.1.1 Indicate the Source or Incentive for the Mission. The source of the mission lies in the directive from a superior or perhaps in a set of circumstances in the commander's area of responsibility.

2.2.1.2 State Own Mission. The superior's directive normally contains five paragraphs:

1. Situation
2. Mission
3. Execution

4. Administration and logistics
5. Command and signal.

The first three paragraphs enable the commander to determine and state his mission, which consists of his assigned task(s) and purpose. (A *task* is a specific operational action imposed on a subordinate that, when properly met, will accomplish or contribute to the accomplishment of the mission of the command. *Purpose* is the incentive and reason for accomplishing a mission as established by a superior.) Figures 2-2 and 2-3 illustrate the procedure for finding task(s) and purpose; Figure 2-4 presents the procedure in greater detail.

Tasks assigned to subordinate commanders are found in the Execution paragraph of the superior's directive. A commander usually finds his task(s) in a lettered subparagraph addressed to his force. For example, in Figure 2-4, Commander Amphibious Task Force takes as his task COMSIXTHFLT's directive subparagraph 3.a, Amphibious Force. In like manner, Commander Striking and Covering Force takes as his task subparagraph 3.b, Striking and Covering Force.

A commander's purpose is normally taken from the decision statement of the immediate superior, which is found in his Execution paragraph and prefaced by the phrase, "This force will" As a general rule, a commander assigned a supporting or protecting role will find that this procedure results in a meaningful purpose statement. However, this procedure may result in a mission statement that is redundant; that is, the wording of the task and purpose are both the same, or nearly so. This is usually the case for a commander assigned a main or striking role, since the tasks assigned him are the same as his superior's decision statement. This commander takes as his purpose the task of his superior, which is found in the Mission paragraph of the superior's directive.

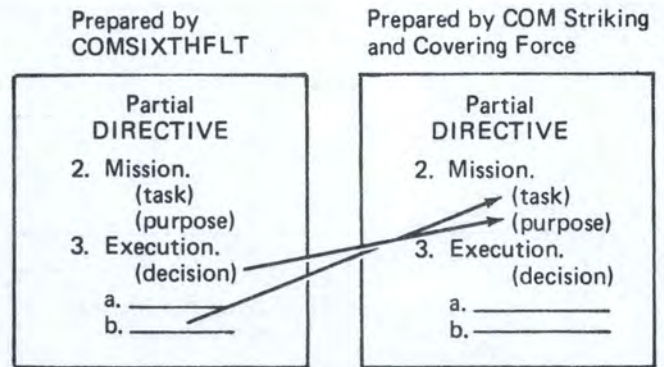


Figure 2-2. Supporting or Protecting Role

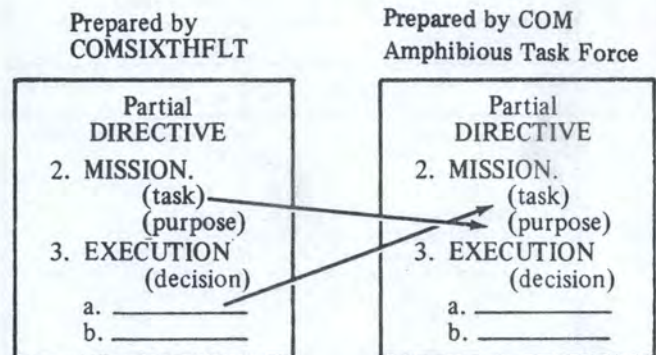


Figure 2-3. Main or Striking Force Role

Thus, there are two procedures for determining the commander's purpose:

1. If the commander is in a *supporting* or *protecting* role, he finds his purpose in the decision statement of his superior's Execution paragraph. The decision statement is not labeled as such, but is always found immediately following the word "Execution." The commander's purpose is simply this statement, prefaced by "in order to . . ." or "in order to assist in" This

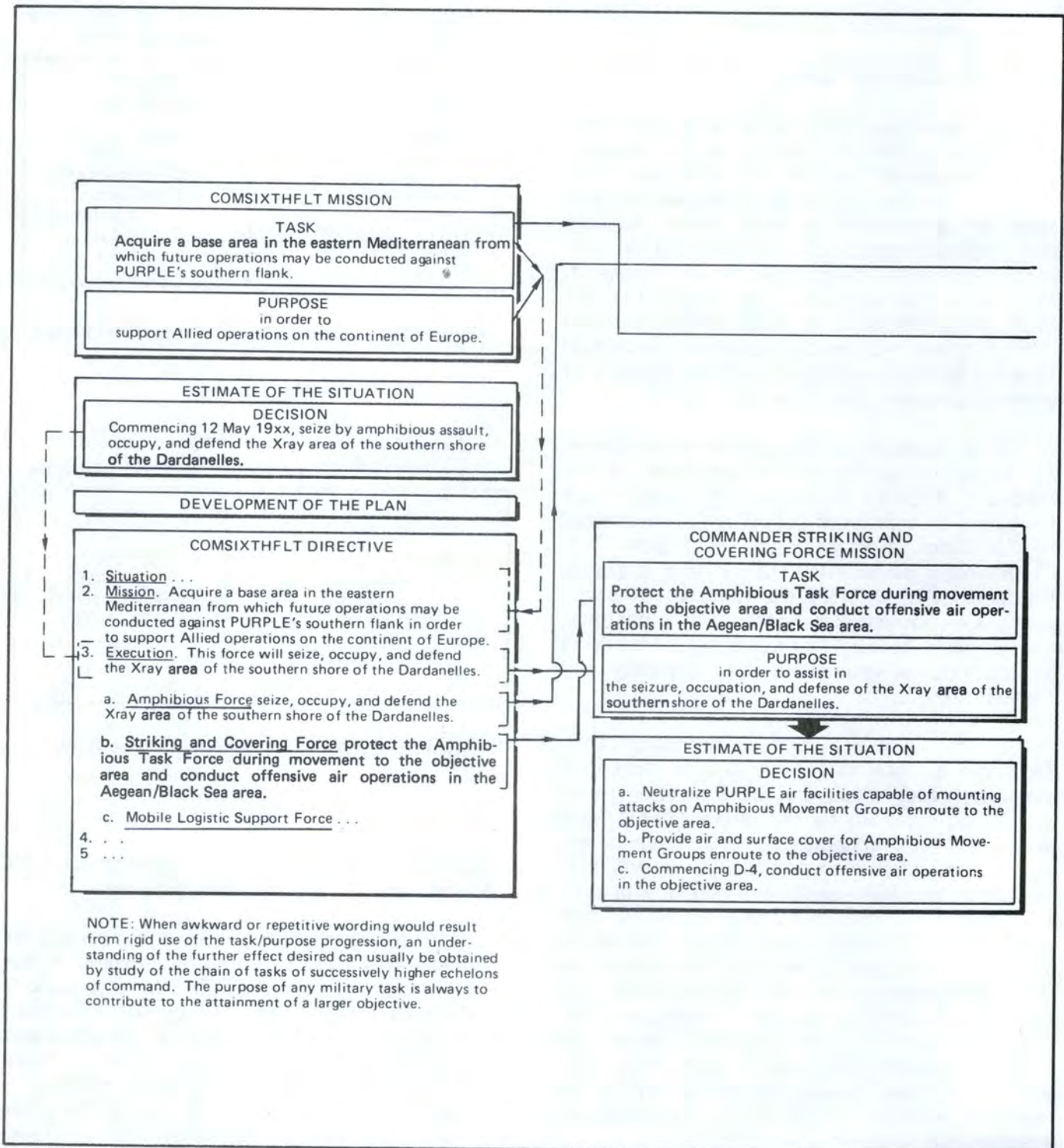


Figure 2-4. Superior's Mission to Subordinate's Purpose (Sheet 1 of 2)

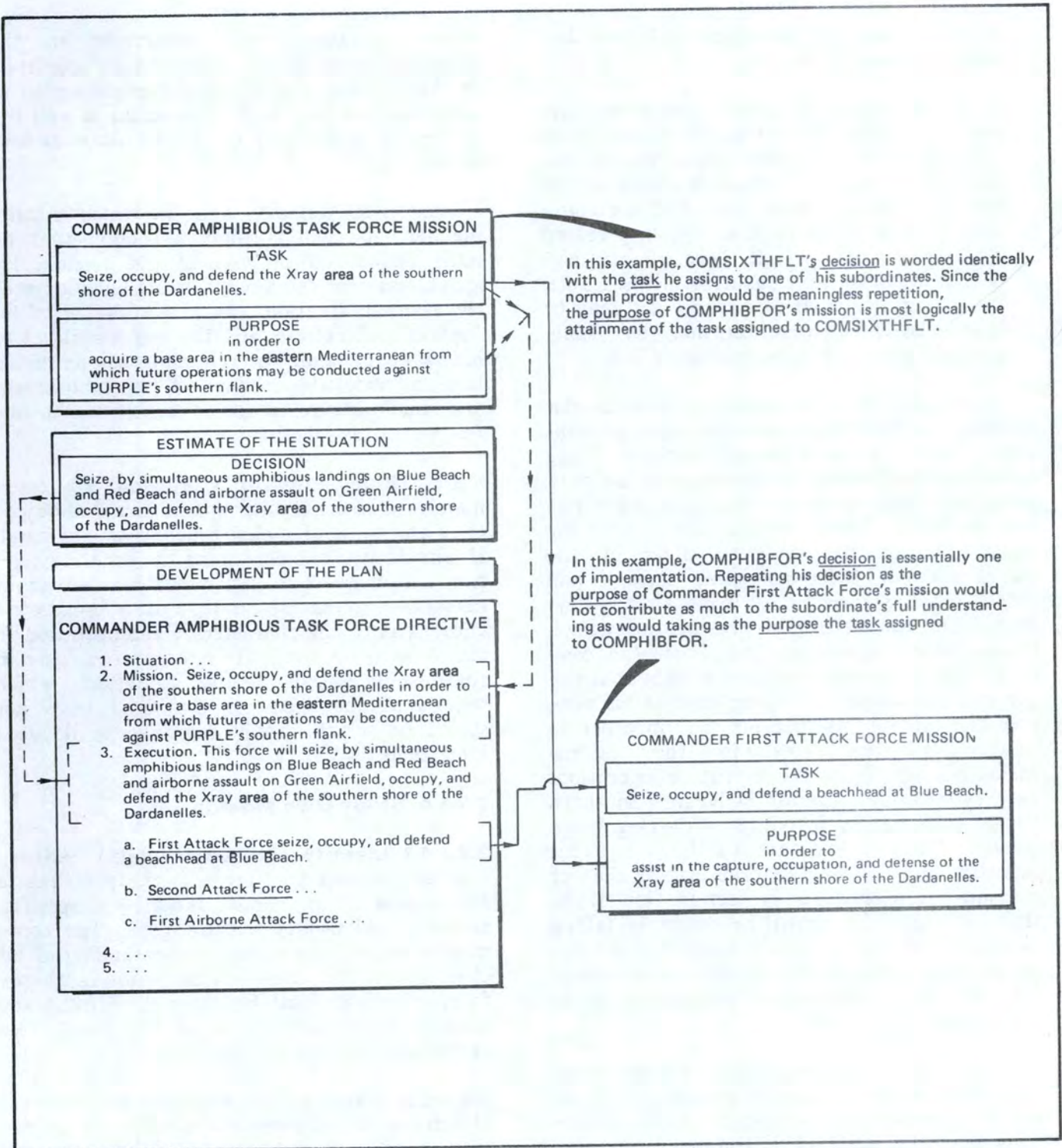


Figure 2-4. Superior's Mission to Subordinate's Purpose (Sheet 2 of 2)

procedure may be visualized in Figure 2-2 based on Figure 2-4.

2. If the commander is in a *main* or *striking* role (this should be evident from the tasks assigned to him), he uses as his purpose the task of his superior, which is found in the superior's Mission statement. The commander's purpose is the superior's task, prefaced by "in order to . . ." (If there is more than one commander in a main or striking role, the preface "in order to assist in . . ." may be appropriate.) This procedure may be visualized in Figure 2-3 based on Figure 2-4.

In Figure 2-4, for example, Commander Amphibious Task Force has noted that his tasks are the same as his superior's decision. Using the normal procedure for determining his purpose, his mission statement would be meaningless repetition: "Seize, occupy, and defend the Xray area of the southern shore of the Dardanelles in order to seize, occupy, and defend the Xray area . . ." If not already evident from the nature of the tasks assigned, Commander Amphibious Task Force can conclude that he has been assigned a main or striking role and should therefore take as his purpose the task of his superior ". . . in order to acquire a base area in the eastern Mediterranean from which future operations may be conducted against PURPLE's southern flank." Commander Strike and Covering Force has noted that his tasks are not the same as his superior's decision and that his role is that of providing support and protection. He finds, therefore, that the normal procedure of taking as his purpose the decision statement of his superior yields a mission statement that meaningfully and accurately states his contribution to his superior's objective.

Note that the superior's Mission and Execution paragraphs are the means of informing the subordinate commander of the objectives of three echelons of command: his own level and the two echelons above him. The Situation paragraph may indicate the objectives of still higher echelons and of friendly forces

whose operations may contribute to the accomplishment of the commander's objective. In this manner, the standard operation plan or order ensures that each commander is well informed as to the purpose of his mission as well as his task(s).

Circumstances may arise in which a commander has such freedom of action that he must deduce all or part of his mission. He should base his deductions on his knowledge of the general situation, his understanding of his superior's objectives, and the responsibilities of his own command. The mission he selects should have a reasonable chance of accomplishment and should secure results favorable to the objectives of his superior.

2.2.1.3 Study Superior's Mission. The commander studies his superior's mission and objectives and those of higher echelons of command. He should strive to determine the general situation and chain of events which brought about his mission so that he can then draw broad conclusions as to the character of the operation in which he is involved. He must exercise care so that he does not assume intentions which seniors in the chain of command have not stated or which cannot logically be deduced from their directives.

2.2.1.4 Study Own Mission

2.2.1.4.1 Identify the Objective(s). Adherence to the objective provides the prerequisite for success in any undertaking — a specific, realistic, and clearly defined goal. The commander must have a clear understanding of his objective at the outset of his planning; therefore, objectives must be distinctly defined and must underlie all features of the plan. (See paragraph 2.1.2 for further discussion.)

2.2.1.4.2 Identify the Physical Objectives. Determine physical objectives after the objective is established. Each objective generally contains one or more physical objectives against or toward which the military efforts of the force should be directed. After the commander

identifies his physical objectives, he must understand the relationships between the physical objectives and the objective of the operation insofar as possible at this time. Further information on physical objectives will undoubtedly be established during the second step in the estimate, when the considerations affecting possible own courses of action are discussed.

2.2.1.4.3 Note Contribution to Superior's Objective. Carefully examine the manner and extent by which accomplishment of own mission contributes to the superior's objective. This examination may reveal circumstances that influence the manner in which the operation is to be conducted.

2.2.1.4.4 Note the Military Environment of the Operation. Is the operation to be conducted in a peacetime environment with little potential for hostile action? Or is the operation being undertaken as a result of a crisis that has a potential for hostile acts being committed against friendly military forces? Or is the operation to be conducted in an environment of open hostilities? The answers to these questions will impact greatly on course-of-action development. For example, the courses of action recommended by a naval commander in response to a JCS Warning Order in a crisis situation would require a thorough integration with the rules of engagement approved for the operation.

2.2.1.4.5 Note Significant Elements of the Problem

a. Obvious Planning Constraints. Constraints that have a significant bearing on possible solutions to the problem are usually readily apparent early in the estimate. They might include:

1. Implications of time (degree of urgency or priority and planning time available)
2. The nature of the tasks (tactical-strategic, offensive, defensive, or supporting)

3. Obvious limitations on courses of action (forces available and their disposition and readiness)

4. Special conditions imposed by higher authority (for rules of engagement, see paragraph b. below)

5. Relationship of present operation to existing plans and directives.

b. Rules of Engagement. The rules of engagement (ROE) are an integral part of any operational plan, particularly in a period of transition between peace and war when there is a possibility of a hostile act being committed by an opposing military force. A clear understanding by all participants of the ROE in effect for such an operation is absolutely necessary. It is not enough to say, "Peacetime ROE are in effect."

Rules of engagement must be clearly stated in simple language and a procedure for their execution carefully planned. Detailed ROE information must be included in the OpPlan or OpOrder. JCS SM-460, Peacetime Rules of Engagement for Seaborne Forces, outlines basic guidance for rules of engagement and also provides for supplemental measures in crisis or contingency situations. Unified and specified commands have ROE written from the basic JCS guidance.

Commanders can expect to receive amended rules of engagement and supplemental measures from higher authority that provide modifications or additions to standard authority and procedure (unamended Peacetime ROE) whenever they are directed to increase force readiness (upon increasing DEFCON) and in crisis or contingency situations. Requests and authorization for amended Peacetime ROE and supplemental measures shall be by message format in accordance with the basic JCS ROE, as amplified by unified or specified commanders. These messages should be referenced in the OpPlan or OpOrder.

When a U.S. Navy force is operating under NATO command, Rules of Engagement for NATO Operations in a Maritime Environment MC 192/2 shall be used. NATO rules of engagement to a large extent parallel U.S. rules of engagement, with the obvious exception that requests for amended NATO ROE and supplemental measures are made via the NATO chain of command. Complete familiarity with the NATO ROE is required to successfully operate as a part of a NATO force.

c. Assumptions. The need for assumptions generally becomes evident early in the estimate. An *assumption* is a supposition on the current situation or a presupposition on the future course of events that is assumed to be true in the absence of positive proof. It replaces necessary information, which is unavailable at the time it is needed, to enable a commander to complete his estimate and develop his plans. An assumption normally states expected conditions over which the planner has no control. It may replace missing information about the enemy, the environment, the timing, and the progress or outcome of friendly or own force activities against the enemy. Assumptions should not be made for activities of friendly forces, which are usually known or can be obtained by the commander.

If an assumption is used in a plan, an alternate plan not based on the assumption must be prepared. This is essential since, if the assumption proves to be false, the plan must be abandoned. The number of assumptions and alternate plans can be reduced, if not eliminated, if the situation permits the development of a truly flexible plan (that is, a plan capable of being executed with only slight modifications as events unfold). Assumptions stated by a superior must be accepted by a commander as facts and should form an integral part of his basis for planning. Assumptions may be stated in all forms of directives, except in an operation order. An operation order initiates immediate or near-future operations and assumptions may not be used (see paragraph 4.1). This prohibition

also applies to general operating (OPGEN) messages.

A commander's ability to recognize and frame necessary assumptions requires detailed knowledge and good professional judgment. Assumptions, if adopted, should be as few in number as possible and worded so that they describe accurately the conditions that make the plan valid. Too many assumptions limit the usefulness of a plan; although, as a general rule, the higher the echelon or the more long range the plan, the more numerous the assumptions.

Do not confuse the factual accuracy of an assumption with the necessity for using an assumption. The measure of a true or false assumption is the course of future events; the measure of a necessary assumption is its impact on the commander's plan. For an assumption to be necessary, it must if it proves false adversely affect the plan's success (that is, the plan is based on predicted events which do not occur). For example, in his operation plan for the capture of Okinawa during World War II, Commander Fifth Fleet issued the following assumptions:

1. "That the seizure of Iwo Jima is completed at a sufficiently early date to permit availability of fire support and close support units for the assault in the Nansei Shoto."
2. "That assault shipping, supporting naval forces, and Army troops to be used in this operation are released promptly from Philippine operations."

These are excellent examples of necessary assumptions. If either event failed to occur (that is, the assumption proved false), a revision of the plan would have been necessary. Ordinarily, the activities of friendly forces are not the subject of assumptions, since a commander is usually able to obtain exact knowledge about them. However, assumptions regarding own forces may be imperative, as in the Okinawa plan. Friendly forces needed for the operation were engaged with the enemy

elsewhere. The timely success of these engagements could not be known and had to be assumed, if planning was to continue.

In summary, note the following points about military assumptions:

1. Use an assumption when information essential to the preparation of a plan is missing. The need for an assumption may be evident in the analysis of the mission or at later stages of the planning. When you recognize a need, state the assumption carefully, so that it describes accurately the conditions that make the plan valid. Keep the assumption in mind during the remainder of the planning.
2. Test for the necessity of an assumption. An included assumption, if it is directly relevant to the development of the plan and supporting plans, should express a condition which, should it not occur as expected, would invalidate the entire plan or its concept of operations. Conversely, if the plan will not be invalidated if an included assumption proves false, then the assumption is not necessary and it should be discarded.
3. Do not confuse the factual accuracy of an assumption with the necessity for using it. The factual accuracy of a necessary assumption determines whether the commander executes his original or his alternate plan. The factual accuracy of an unnecessary assumption is irrelevant, since it has no impact on the commander's plan.
4. If you use an assumption, develop an alternate plan not predicated on that assumption.
5. An assumption may not be used in an operation order or an OPGEN message.
6. When a commander executes an operation plan, his subordinates must regard his assumptions as facts, with no conditions or shaded weights.

2.2.1.5 Note Relationship With Other Subordinate Commanders in the Operation.

Note the relationship between the tasks assigned you and the tasks assigned other commanders in the operation. A study of related tasks in a superior's plan often assists a commander in understanding his role in the operation and in planning for mutual support.

2.2.1.6 Note Enemy Situation and Objectives.

If known with an acceptable degree of certainty, note the general situation of the enemy and his probable objectives. But exercise caution. It is dangerous to presume that the objectives of the enemy are known without a preponderance of supporting intelligence.

2.2.1.7 Summarize Key Points of the Analysis.

It is helpful to list the key points developed in Step 1, especially when the analysis is lengthy and complex. While not formally set forth, it is extremely important for the commander to continue to review and analyze the mission throughout the planning process.

2.2.1.8 Checkpoints — Step 1.

Many errors can be traced to faulty analysis in the first step of the estimate. Appreciation of the following points should enable a commander to avoid the more common misunderstandings in this step in the estimate.

1. All efforts by a commander and his staff must be mission oriented. You can only achieve this if all concerned fully appreciate and do not lose sight of the mission and its objectives. Failure here will result in an encyclopedic analysis that lacks focus and becomes increasingly confused as the planning process continues.
2. When deliberating whether to use an assumption, ask yourself if your primary plan will succeed if the assumption proves false. If the answer is yes, discard the assumption as unnecessary.

3. A commander must know exactly where he fits into the scheme of things, if he is to avoid the pitfall of planning at the wrong level. To avoid planning at too high a level, a commander must understand and appreciate his role in relation to his superior. Likewise, he must understand and appreciate how his mission relates to other subordinates within the superior's command, if he is to avoid encroaching on their tasks or misinterpreting the degree of support and assistance available.

2.2.2 Step 2 — Considerations Affecting Possible Courses of Action. In the first step of the estimate, the commander analyzed his mission in order to gain a comprehensive understanding of the operation and his role in it. In the second step of the estimate, the commander makes a mission-oriented evaluation of those factors of environment and relative combat power that may influence the outcome of the operation. He then draws conclusions that will enable him to establish in the third step:

1. All actions within the enemy's capabilities that can materially affect the accomplishment of his mission.
2. All courses of action available to him that will accomplish his mission.

In this step, the commander lists conclusions after considering each factor. Avoid the tendency to state facts as conclusions. A simple guide is: tabulate the facts, evaluate the facts, draw conclusions. For example, a commander is to operate submarines in the Mediterranean from a base outside. The pertinent facts on the hydrography of the Strait of Gibraltar are its depth, width, and currents. After determining the depth, it is not a conclusion to say that the Strait is deep. This is a fact. A pertinent conclusion, based on data for depth, width, and currents, would be an expressed opinion as to whether or not the enemy could close the Strait to submarine transit by the use of mines, nets, or barrier patrols. The commander needs to determine this in planning his operation, but it

is not a fact, it is an opinion — the best opinion possible — based on the facts established.

Conclusions are valuable throughout the planning process, because they assist the commander in recognizing significant factors, assessing strength and weakness factors, and analyzing opposing courses of action. If he draws sound conclusions, a number of strengths and weaknesses immediately become apparent. Similarly, sound conclusions will aid his analysis in Step 3. As will be discussed later, each analysis will present the commander with various operational problems. Conclusions drawn in this step will temper, limit, or otherwise affect his solutions to the problems. Therefore, the conclusions he draws must not only be sound but also relevant to the particular problems he faces. Conclusions that do not assist him in determining how best to accomplish his mission are of little value.

The commander and his staff may be able to obtain much of the background information used in this step from an intelligence estimate of the situation, prepared specifically from the viewpoint of the mission, that provides an analysis of the area of operations and the means of determining enemy capabilities (see Chapter 18). Other sources include the superior's directive, the intelligence annex of the superior's directive, conferences with other commanders, information bulletins, intelligence summaries, and special studies.

The paragraphs that follow set forth a recommended procedure for Step 2 of the commander's estimate. It is not necessary to follow this sequence in all cases, since different staff sections may work in various areas concurrently. It is also advantageous to vary the order of examination in order to more clearly delineate the areas to be examined in detail. For example, in a logistics support mission, "locations and distances" might be examined before "terrain and topography."

2.2.2.1 The General Situation. In the statement of the general situation, briefly

survey the overall situation. Use terms that provide a broad point of departure for the collection of detailed data. The survey should limit the scope of the problem to that which is of interest to the commander. In so doing, it should highlight the salient features of the existing situation and how that situation is to be altered by the execution of the overall operation. The survey normally includes:

1. Broad political and military aspects
2. A brief list of enemy forces immediately opposed to the commander and those that may oppose him during the execution of the plan
3. A description of friendly forces, including those that may conduct supporting operations
4. Any assumptions made by the superior in his directive.

2.2.2.2 Characteristics of the Area of Operations. Consider all characteristics of the area that can influence possible courses of action. Since the factors are numerous, exercise care to avoid becoming lost in encyclopedic concerns or excessive detail. Conclusions reached in Step 1 dictate the factors that require study and the degree to which they should be covered. The factors discussed below are divided into two principal classes: general and fixed. Through a study of them, the commander should be able to draw conclusions on how they will affect own and enemy operations. For each factor considered, the commander should draw conclusions on how it may affect his operation.

2.2.2.2.1 General Factors. General factors cover a broad field that includes the influence of political, economic, and psychological conditions on the conduct of military operations, both own and enemy. They are customarily considered in detail in estimates broad in scope, such as those made at the highest echelons of command. However, an intermediate commander may conduct operations in which

these factors are important; the extent to which he needs to consider them in any specific situation will depend on how much he judges they may influence his immediate problem.

a. Political factors are those political conditions which appear to have a bearing on the situation under study. They include such internal matters as political stability, control over own and enemy war effort, control over subversive activities, and internal opposition to the government and such other matters as alliances, political relations with other countries, and aspects of international law. The political consequences of, or the reactions to, various types of military operations can be extremely important, if they render an otherwise viable plan unacceptable.

b. Economic factors include the capacity, organization, and mobilization capability of own and enemy industry to carry on hostilities; the availability of manufacturing facilities; the supply of raw materials; and own and enemy finances and foreign trade.

c. Psychological factors include a wide range of subjects that are difficult to evaluate. The morale of the civil population and the armed forces is an ever-present factor. National and cultural characteristics influence the state of training of civil and military forces and their skill and resourcefulness under varying conditions of military pressure. These factors are elements of all military situations, but they become the special concern of a commander who contemplates the exploitation of one or more of them either as an element of own strength or an element of enemy weakness.

2.2.2.2.2 Fixed Factors. Fixed factors include the relatively fixed or stable characteristics of an area of operations. The commander should determine what limitations they impose and what advantages they offer his forces and enemy forces. He should draw pertinent conclusions in each case.

a. Hydrography includes information on depths of water, currents and tides, channels, navigational dangers, aids to navigation, and similar factors affecting navigation. In planning for amphibious operations, a detailed examination of beach gradients, approaches to beaches, and tidal conditions is essential. Give careful attention to mineable waters (their susceptibility to offensive and defensive mining or sweeping). Carefully investigate sonar conditions (the same condition may be advantageous for submarine operations and disadvantageous for surface operations). The commander may use the sonar condition in an ocean area as a factor in planning operations in the area or as a factor in routing transiting forces (convoys) away from the area.

b. Terrain and topography are studied when operations are to be conducted near or over land areas. Some types of missile guidance and certain types of weapon employment require detailed terrain studies. Amphibious assaults require extensive topographic studies of landing beaches, inland areas suitable for movement of ground forces, the features of potential bases and airfield sites, the effect of terrain on land transportation, and the need to rely on water transportation. The influence of land masses on radar operation should be determined. The effect of topography on plans for pilot escape and evasion should be considered when appropriate.

c. Climate and weather information is necessary in all military operations. Considerations range from a general survey of climatic variations to detailed studies of weather conditions and their effects on projected operations. The presence of snow, ice, permafrost, or low temperatures may affect the mobility of forces. The effects of climate and weather on electronic emission and reception can be critical in communications.

d. Daylight and dark periods are important in planning operations, types of screens to be used, events to be scheduled, and so on. Tabulate the times of sunrise and sunset,

moonrise and moonset, daylight and dark periods, duration of twilight, and the phases of the moon.

e. Locations and distances are important in any operation that involves a large area. Tabulate distances between important geographic points; if helpful, include both sea and air distances and, when appropriate, true compass directions between points on chart and map presentations. Consider only factors of a fixed or geographic nature; the dynamic aspects of distance (as related to time) will be covered later under time and space factors.

f. Lines of transportation and supply (land, sea, and air routes) for own and enemy forces should be examined carefully if they can affect the operation. Focal points of shipping, channels or restricted passages, and similar features that influence lines of transportation and supply may have a direct bearing on the operation.

g. Health and sanitation conditions should be evaluated for possible effects on the medical requirements of own forces, enemy forces, and the indigenous population. Factors that may be pertinent are climatic conditions that can affect health, availability and condition of food and water, endemic diseases, and medical facilities and personnel available in the area.

h. Facilities and fixed defenses are studied when the operation requires consideration of bases. Include such items as fortifications and their areas of fire, airfields and associated facilities, harbor defense installations, radar and air warning networks, and anti-aircraft defenses. If appropriate, examine facilities or special characteristics that make a harbor or base of interest to an enemy and indicate the need for denying it to him.

i. Area communication facilities (radio, cable, and landline) should be reviewed for their adequacy to assist the commander in the exercise of command over his forces. Consider

those facilities that are associated with the area of operations, not those that are organic to the commander's force, and similar facilities that are available to the enemy. Include a study of the ability of own and enemy communication facilities to withstand interference and to interfere with and intercept communications.

j. Missile facilities should be checked for electromagnetic compatibility. NAVORD OP-3840 should be reviewed regularly to ensure missile effectiveness.

2.2.2.3 Examine Relative Combat Power. Study the number and organic characteristics of the fighting forces that will be opposed and the supporting factors and elements that will have a direct relationship on their effectiveness. This examination is more than a mere listing of the number and types of forces, ships, aircraft, missiles, and guns. It requires an investigation of all the factors that contribute to the ability of the commander's forces to accomplish the mission. If there will be close coordination with friendly forces, a brief examination of their capabilities should be included as appropriate.

This step, like the preceding one, is a study of the facts about opposing sides as a means of establishing conclusions. The conclusions will be part of the basis for the consideration of strength and weakness factors (see paragraph 2.2.2.4.3). The following paragraphs are chosen to provide maximum flexibility in the examination; no rigidity is implied. The commander may vary them if he feels that he can visualize relative combat power by arranging the factors differently.

2.2.2.3.1 Compare Opposing Forces. Compare the number, characteristics, and locations of combatant ships, aircraft, submarines, land forces, and missiles assigned to the commander with the number, characteristics, and locations of enemy forces that may oppose them. A convenient form for evaluation is a tabular listing that shows the characteristics of opposing forces. The detail into which the commander should go in this comparison depends on the

nature of the problem and the commander's judgment.

Comparisons are generally more meaningful if they are made primarily for forces that will oppose each other, rather than by specific types. For example, an enemy's force level of 50 submarines is most clearly placed in the proper perspective when it is compared with the commander's antisubmarine warfare (ASW) capability; own force's air strength is placed in the proper perspective when compared with the enemy's air defense capability. However, the commander must remember that one of his purposes in listing combatant forces is to assist him in determining the strengths and weaknesses of force levels. For example, a commander's ASW superiority over the enemy's submarine capability still may not obviate the fact that an enemy strength may be found in its submarine capability.

In striking force operations, naval forces may be opposed primarily by air forces and/or submarines; in amphibious operations, they may be opposed by land-based gun and missile batteries. The commander will reach more valid conclusions on relative combat power if he makes comparisons of this type, rather than comparisons of ships versus ships, and so on. Some of the characteristics that may be tabulated are:

1. For ships: speeds, radii of action, armament and effective ranges, electronic equipment, defensive features, material conditions
2. For land forces: composition, armament, equipment, strength
3. For air forces: performance, offensive and defensive armament, electronic equipment, material conditions
4. For missile batteries: ranges, locations, control systems, minimum elevation angles, susceptibility to countermeasures, rates of fire, material conditions.

Note

Consider the combat efficiency of military personnel as measured by national characteristics, combat experience, morale, training, skill, and stamina as separate items or integral with the particular service to which they belong.

2.2.2.3.2 Compare Opposing Communications-Electronics Capabilities. The commander must control communications-electronics to carry out a planned operation. Do not make a second tabulation of some of the characteristics listed above, but take a closer look at the equipment that can be used or should not be used to provide effective communications and maximum intelligence and yet remain compatible with the requirements of electronic warfare. This examination naturally requires more thought on the capabilities of the force as a whole in the communications-electronics area, than was required in the investigation above.

In the sense used here, communications includes the method of conveying directions or information — the means by which orders resulting from decisions are issued to, and information is received from, subordinate and other commanders. Electronics refers to intercept, jamming, and detection equipment and force capabilities in electronic warfare. A fine line of distinction between communication and other electronic equipment is not needed or desirable; some intercept equipment can detect both radio and radar signals. Communication equipment must also be evaluated for emission control conditions that may be required.

If a communications or communications-electronics estimate has been prepared, it can be of use as a source of background information on the details of the facilities available to the commander. The examination should include:

1. Organic communications equipment, electronic warfare facilities available within

own force, and the systems for their coordinated use and control

2. The means of communications and electronic warfare available to the enemy.

3. The capabilities of own force and the enemy force to reduce the effectiveness of each other's electronic capabilities.

2.2.2.3.3 Compare Logistics Capabilities. Logistics is the concern of commanders in all military operations. Review the sources and probable adequacy of the logistic support available to own force: the locations and accessibility of bases; the extent to which these bases can meet requirements for men, material, and services; and the availability and capabilities of mobile facilities, such as supply ships and repair ships. If the mission involves mobile logistic support, tabulate the pumping rates, transfer rates, lift capabilities, and other ship characteristics under "combatant forces." Study similarly enemy logistic considerations. Actual logistic requirements and organic endurance for own force will be considered later; the fixed lines of transportation and supply were considered earlier.

2.2.2.3.4 Compare Time and Space Factors. Time and space factors are the dynamic aspects of the situation; they enter into all operations and into all stages of planning. These factors will be considered in more detail later, in the development of the plan phase, after the commander's decision has been made. The commander's concern here is with the relative positions of opposing forces and supporting or supported units and their prospective movements. These factors will weigh heavily in Step 3 of the estimate, when the commander considers enemy capabilities and the feasibility of tentative own courses of action. Other time and space factors that may also bear on the situation include the time to complete a deployment, the possibility of intercepting an enemy force, the time and sea room required for underway replenishment and carrier operations, and the time to load or

unload assault or resupply shipping. A survey of their effect on future operations may be included.

2.2.2.4 Assess Factors of Environment and Relative Combat Power. Up to this point in the planning process, the commander has surveyed the environment, compared resources, and studied the means available and the means opposed. He will now find it useful to review the conclusions reached thus far and to assess possible effects on the operation.

2.2.2.4.1 Identify Deficiencies in Information. Areas of incomplete information should be readily apparent at this stage of planning. List essential elements of information (EEIs) and indications and establish a schedule for collection (see Chapter 17).

2.2.2.4.2 Identify Sensitive Areas of Security. Give careful consideration to potential security weaknesses that could result in compromise of intelligence information. State specific intelligence information as essential elements of friendly information (EEFIs), the disclosure of which could be prejudicial to the success of the planned operation. Also estimate the susceptibility of force communications to intercept and analysis and the enemy's ability to exploit EEFIs by adjusting his actions to the disadvantage of the commander's forces.

2.2.2.4.3 Tabulate Strength and Weakness Factors. Review all the conclusions reached thus far and consolidate them into the form that best shows the strengths and weaknesses of each of the opposing forces. Consider all factual data, related conclusions, and determine where the strengths and weaknesses of each side lie. For example, superiority in number of submarines loses significance as a strength, if the water in the area of operations is too shallow to permit submarine operations. It is convenient to tabulate strength factors in two columns, one column for each side, and then tabulate weakness factors similarly. This method emphasizes the strong and weak points

in each force. Both factual data and conclusions may be included in the tabulations.

Since the basic criterion in military operations is the ability of opposing forces to attain their objectives, any valid strength or weakness factor must be one which indicates, directly or indirectly, an ability or inability on the part of either force to achieve an objective. For example, the adequacy or inadequacy of base support may manifest itself in several ways: in the mobility, the offensive capability, and the defensive capability of a force. Some factors may facilitate or complicate the control needed for attaining certain objectives. By reviewing strength and weakness factors, the commander can determine their validity and establish their aggregate effect on possible courses of action. He should then be better able to reach sound conclusions as to the relative fighting strengths of the opposing forces and to pinpoint those strength and weakness factors that he should exploit and those that he should minimize or avoid.

2.2.2.4.4 Make Initial Determination of Adequacy of Own Force. When the commander completes Step 2 in the estimate, he should have sufficient information on which to base preliminary judgments on whether or not his forces are adequate to accomplish the assigned task(s) and on the degree of risk involved. If he is convinced that his force is inadequate because of deficiencies relative to the forces in opposition, he will have the facts upon which to base his report to his superior.

2.2.2.5 Checkpoints — Step 2. Appreciation of the following points should enable a commander to avoid the more common misunderstandings in this step in the estimate.

1. With the vast intelligence sources available today, the commander's major problem is determining when sufficient data have been collected and evaluated. This is a matter of judgment; but if the commander is careful to ensure that his investigation is mission oriented, he can greatly facilitate his

selection of relevant information and his judgment on its sufficiency.

2. To be effective, the commander's estimate of relative combat power must be a comparative analysis of the means available to the forces in opposition. Its purpose is to enable him to draw conclusions as to the relative ability of his forces to accomplish the mission.

2.2.3 Step 3 — Analysis of Opposing Courses of Action. After he has gathered data and drawn conclusions, the commander continues the logic process by identifying and considering enemy capabilities and own courses of action. These he lists and then analyzes by comparing (mentally "war gaming") each course of action open to his force against each enemy capability. The primary purpose of this interaction analysis is to identify the own course of action that will have the best overall chance of attaining the mission's objective(s).

In this step, the commander should allow himself the widest scope of imagination, constrained only by his effort to keep the analysis mission oriented. He should not reject ideas prematurely, simply on the grounds that they are unorthodox or fragmentary. The process should be one of building and refining.

2.2.3.1 Enemy Capabilities. Enemy capabilities are the last factors that the commander considers that affect possible courses of action. An *enemy capability* (EC) is an action that (1) the enemy is physically capable of carrying out and (2) if adopted, will affect the accomplishment of the commander's mission. Enemy capabilities are stated as broad and conclusive actions that enemy forces can carry out under conditions most favorable to them. An intelligence estimate is the primary source of information about enemy capabilities. The enemy's ability to affect the operation (to carry out the enemy capabilities), in spite of the own course of action that the commander adopts, is investigated later. It should not influence the initial formulation of enemy capabilities.

The term *enemy capability* is used, rather than the term *enemy course of action*, for clarity and because enemy capabilities and own courses of action are not closely allied, even though they both deal with military actions and are both analyzed in somewhat the same manner. There is a substantial difference between enemy actions and enemy capabilities with regard to the commander's certainty and confidence in listing and considering them. Even though enemy capabilities may be examined in great detail in intelligence estimates, the commander still cannot discuss "enemy courses of action" without knowledge of the enemy's mission and objective(s). This information, except in the most unusual of conditions, is not available to the commander. Even under ideal conditions, in which the mission and objective(s) of the enemy are known, the commander's confidence is limited by the obvious fact that the enemy can feign or change them.

There may be many actions available to the enemy, all of which the enemy is physically capable of carrying out, but unless a specific action has a material affect on the commander's mission, either directly or indirectly, it is not a valid enemy capability. For example, consider the case of a commander of a carrier striking force in the Mediterranean Sea, whose mission is "Destroy the enemy surface force in order to assist in gaining control of the Mediterranean area." The enemy surface force, located near Sicily, has the physical capability of launching a surface-to-surface missile attack against targets in England. Since this action could not materially affect the accomplishment of the commander's mission, it is not a valid enemy capability. The commander would not ignore the possibilities of an enemy missile launch on third-force targets, since this might bear upon the urgency of his mission or, perhaps, support his senior's mission; however, he would incorporate these considerations with those enemy capabilities that have a more material bearing upon his mission of "destroying the enemy surface force." He thus derives enemy capabilities of more utility for later analyses.

An enemy capability is generally considered to be an action that interferes with the commander's mission; however, in some cases, it may actually assist the commander. For example, if the task of a carrier group commander is to "seek out and destroy the enemy submarine force," an enemy capability to "evade the carrier group" would interfere with the commander's mission. On the other hand, an enemy capability to "destroy the carrier group" may actually assist the group commander. If the enemy elects to use submarines against the carrier group, this action will largely solve the group commander's problem of detecting and locating the enemy submarines. While the first enemy capability interferes, the second assists (to a degree) in the accomplishment of the commander's mission. Both are valid, since each materially affects the accomplishment of the commander's mission.

2.2.3.1.1 Consider and List Enemy Capabilities. The commander can facilitate the formulation of enemy capabilities if he first identifies specific physical objectives and then visualizes specific actions within the capability of enemy forces that (1) may be directed at these objectives and (2) may affect the accomplishment of his mission. Appropriate physical objectives may be his force, subdivisions of his force, supporting and supported forces or activities, geographical areas, or positions of tactical or strategic significance. The commander then translates all actions relating to each physical objective into broad inclusive statements about possible enemy objectives. Stating enemy capabilities in general terms simplifies the format aspect of the planning process; more importantly, it broadens the planner's perspective throughout Step 3.

Examples of properly stated enemy capabilities are: "Destroy Task Force Twelve" and "Neutralize White advanced bases." Use broad terms such as "destroy" and "neutralize," in preference to words such as "attack" and "strike," and indicate a physical objective or type of physical objective. The statement omits

the enemy's individual or detailed actions to accomplish an enemy capability; each enemy capability so stated may represent a series of detailed actions. The enemy's detailed actions (the "how" of each enemy capability) will be explored later. However, the commander should consider the general concept of the enemy forces' employment, timing, and the strength he can commit simultaneously in several objective areas in judging whether an enemy is indeed capable of a given tentative enemy capability. The basis for these ideas has been brought forward, usually in an intelligence estimate, from the conclusions under Step 2.

The commander's evaluation may indicate that the enemy is capable of performing multiple actions which, in combination, would affect accomplishment of his mission differently. If so, the stated enemy capabilities should reflect them. Some examples are: "Deny White Naval Forces the use of the Norwegian Sea while conducting an amphibious assault against Iceland" and "Destroy Task Force 32 and interrupt merchant shipping." Failure to appreciate a multiple enemy capability may result in faulty conclusions about a commander's ability to accomplish his mission.

In any situation in which own forces will be opposed, the enemy will always have the capability (in some degree) to destroy or impede the commander's forces. So at the outset, the commander has at least one enemy capability to consider. Other enemy capabilities should be apparent from the conclusions drawn in Step 2. The enemy is usually able to adopt more than one capability.

It is vitally important for the commander to consider all enemy capabilities. To discard or reject a relatively unlikely enemy capability, solely on the ground that it is improbable of adoption, is to deal in enemy intentions and run the risk of being caught unprepared should the enemy choose that capability. The enemy may make such a choice deliberately, in order to deceive, or he may simply have an objective that is unknown to the commander.

In summary, the commander should ask himself two questions in considering each enemy capability: Can the enemy carry out the action? If he does, will it directly affect his mission? If so, the commander should retain the enemy capability and carry it forward for further analysis.

2.2.3.1.2 Weigh Relative Probability of Retained Enemy Capabilities. After the commander has considered and analyzed all enemy capabilities sufficiently to establish the effects of their accomplishment on his mission, he should review them to ensure that there is no duplication. When appropriate, he may combine enemy capabilities.

The commander arranges retained enemy capabilities in a list in order of probability based on the enemy's apparent intentions. His consideration of enemy intentions is frequently necessitated by the limited resources available to both his own and enemy forces. Limited resources demand choices of priorities. The commander knows the resources of his own forces, but can only estimate or deduce them for enemy forces. To deal uncritically in enemy intentions — that is, to base a plan on what one believes an enemy will do — can be an extremely dangerous practice. The danger to the commander and his plan lies not in dealing in enemy intentions per se, but in confusing enemy intentions with enemy capabilities. The harmful result is that the commander may reject enemy capabilities for further planning on the basis of conclusions he has drawn from probable enemy intentions.

Regardless of how convinced the commander may be of the accuracy of his intelligence, he can expose his plan to the grave risk of being unprepared, if he rejects a retained enemy capability on the grounds of what he believes the enemy might do. This does not preclude a study and analysis of reliable intelligence or particular knowledge of the enemy to determine enemy intentions. Proper exploitation of intelligence may reward the commander with

great success and economy. However, he may reflect the fruits of his analysis only in the ordering of retained enemy capabilities; his analysis must not influence the initial consideration and listing. As a general rule, the number of retained enemy capabilities must remain fixed throughout the discussion of enemy intentions; only the ordering of retained enemy capabilities may be influenced by enemy intentions.

In summary, the commander judges the probable intentions of the enemy at this point in the estimate by listing retained enemy capabilities in order of probability. Within the fixed list of retained enemy capabilities, he lists low in the relative order of probability the enemy capabilities he deems the enemy is unlikely to adopt. However, evaluation of enemy capabilities is not a static process. It must continue throughout the operation. Commanders at all levels must carefully assess any indications to determine if they have overlooked an enemy capability or evaluated one from the wrong perspective.

2.2.3.2 Own Courses of Action. An *own course of action* (OCA) is a practicable plan, open to a commander, that would accomplish his mission. In each OCA, the commander visualizes the employment of his force as a whole, based upon the factual data and conclusions from Step 2.

A course of action statement should be expressed in broad terms of accomplishment of final results desired, using simple, unmistakable language. Basically, a course of action consists of two parts: (1) what is to be accomplished in order to achieve the commander's objective and (2) what military action(s) will be taken. Examples of properly stated courses of action are:

1. "Destroy the Northern Force by coordinated air attacks on or after 7 June 19xx."
2. "Commencing on 1 May 19xx, seize, occupy, and defend a lodgement on Zulu

Island by amphibious assaults and commence establishment of air and naval bases thereon."

Each statement names a definite objective and each states the action necessary to attain it or the means employed. The "by action" clause may be omitted if it causes redundancy. For example: "Provide escort for Convoy XYZ" is a properly stated course of action for a destroyer force commander.

2.2.3.2.1 List Tentative Own Courses of Action. Before the commander attempts to develop an own course of action, he should once again examine his mission to assure himself that he has a complete understanding of his objective and then examine the capabilities of his force. With his objective and force capabilities in mind, he may formulate an own course of action by (1) identifying his physical objective(s) and (2) visualizing a possible type of action to be taken by his force or subdivision(s) of his force that will create the effect desired by his superior. He continues this process until he has determined all own courses of action. He must take care to avoid stating the same own course of action several times by merely changing the wording. The commander should defer consideration of supporting requirements until the next step and concentrate at this point on an imaginative projection of his force's efforts to accomplish his assigned task(s).

Since choices of own courses of action become more restricted, as objectives are passed to successively lower echelons, the commander must recognize any restrictions placed on him in selecting own courses of action to be taken, in choosing physical objectives, or in determining a sequence for taking action. Nonetheless, it is quite unusual to find a military problem of any complexity in which there is only one way to employ assigned forces to achieve the objective(s) and accomplish the mission. A good analysis should come up with a number of own courses of action.

If a commander's mission is so worded that he has no freedom of action, he is said to have a predetermined course of action. Even when the course of action is predetermined, the commander should continue his estimate, for by so doing he will familiarize himself with much of the information he needs to know to prepare his directive, carry out the operation intelligently, and be ready to act in the face of a changed or fluid enemy situation.

2.2.3.2.2 Consider Concept for Each Own Course of Action. When the commander has listed all own courses of action, he should briefly consider a tentative concept for each own course of action, so that he may gain an appreciation of all major preliminary and concurrent problems that he must solve in positioning, sustaining, and defending his forces while he is gaining his objective(s). Many actions must be carried out before the objective(s) can be achieved and the mission accomplished; some actions are directed toward the objectives, others lend support and assistance. To ensure that all necessary actions are identified, the commander should list and consider operational requirements.

Operational requirements are needs inherent in an operation that must be fulfilled in order to accomplish the commander's mission. They include broad categories of action and any needs for special or unusual tasks. The broad categories of action include some or all of the following:

1. Offensive
2. Defensive
3. Support
4. Logistic
5. Intelligence
6. Movement
7. Training.

Operational requirements will be the basis for the discussion below, in the analysis by opposing own courses of action and enemy capabilities, and later, in the development of the plan phase, for the formulation of tasks.

Although actions to satisfy requirements are usually interrelated and interdependent, the commander must consider each one separately in planning to ensure that the totality of inherent needs is satisfied. Conclusions drawn in Step 2, especially those related to relative combat power, will influence the commander in preliminarily judging the degree to which his forces are capable of carrying out various operations needed to satisfy the requirements inherent in the concept of each own course of action he is considering.

In drafting the tentative concept of each own course of action, the commander should state in broad, but clear terms — devoid of superlatives and clichés — what is to be done, how, where, the magnitude of the forces deemed necessary, and the amount of time they will be brought to bear.

2.2.3.2.3 Test for Suitability and Make Preliminary Tests for Feasibility and Acceptability to Determine Retained Own Courses of Action. When the commander has listed and considered concepts for all own courses of action, he examines each one separately to determine its validity as a potential decision. In determining validity, the commander applies three basic tests one or more times during the estimate. The tests for suitability, feasibility, and acceptability follow.

An own course of action is *suitable*, if it can, by itself, accomplish the assigned mission. It must create an effect compatible in nature, completeness, and timeliness with the effect desired by the superior, including at least the minimum essential action with respect to any enemy or friendly physical objectives. In brief, any suitable own course of action must achieve the objective(s) of the mission. If the statement

of an own course of action appears to be only partly suitable, because it does not entail sufficient action to fulfill the assigned task(s), the commander should add enough to the own course of action statement to meet the suitability requirement or discard the own course of action.

An own course of action is *feasible* if it can be carried out with the forces, support, and technology available and in the face of enemy opposition. The test for feasibility must necessarily include a visualization of the execution of each task in the face of all significant enemy threats and natural obstacles. The commander can achieve this by carrying out an orderly consideration of measures necessary to attain the objectives in sufficient detail to judge the prospects of success, possible losses, ease of execution, and optimum use of forces throughout the operation.

An own course of action is *acceptable* if the probable results are worth the estimated costs. The possible losses (determined in the test for feasibility) serve as the basis for this test. The commander weighs possible losses in light of the task(s) and purpose of the mission; he should include losses in material, time, and position in addition to purely military losses. He must also weigh the consequences of each own course of action in order to ascertain the degree of risk that he considers to be acceptable.

In considering the acceptability of risk, avoid the tendency toward undue optimism. Proper respect for an enemy's potential normally warrants acceptance of the inevitability of losses to one's own forces. The essence of acceptability of risk lies in the relative value of prospective gains, won in an interaction with the enemy, and the ability of one's own forces to continue effective pursuit of the assigned mission. The prospect of sustaining losses should not deter the commander from adopting an appropriately aggressive own course of action, when the mission inherently entails acceptance of some measure of risk. As noted in Step 1, his superior may be quite explicit as to the

importance, urgency, or priority of the tasks assigned. In other cases, the knowledgeable commander must deduce these limits for himself. He may conclude that the acceptability test for his proposed actions is cast on more costly grounds than for other commanders involved in the overall operation.

It is incumbent upon the commander to devise imaginative plans that accept all limitations imposed by his superior, civilian or military. Therefore, the constraints on planning, identified in Step 1, bear heavily on the commander's test for acceptability. While constraints may change over time or the commander may seek to have them changed, it is never acceptable to cast the basic or primary plan on the presumption that changes in constraints will occur in time. If there is no change, the commander will be left with no plan at all! Of course, to ensure preparedness, alternate and contingency plans are often drafted, based on assumptions that key aspects of the general situation will change or that specific constraints on current planning will be lifted. Situations of this type arise at higher levels of planning, often with regard to the long-range political aspects of acceptability.

Since the commander's decision must be suitable, feasible, and acceptable, each own course of action must be tested against the criteria as early as possible in the planning process. It is pointless to consider any own course of action further, without modification, once the commander recognizes that it fails to meet one of the criteria. The commander will find that judging feasibility and acceptability will take a considerable amount of probing analysis; but that suitability can be judged much sooner. Therefore, he applies a test for suitability and a preliminary test for feasibility (1) after he formulates his own courses of action and (2) at any time that his concept of the operation changes or the forces allocated to him change. He will apply final tests for suitability, feasibility, and acceptability in Step 4 (see paragraph 2.2.4).

By means of the above procedure, the commander eliminates any unsuitable or obviously infeasible own course of action. The extent of the screening at this point is a matter of judgment. In most cases, a brief examination of a possible own course of action will reveal whether or not it should be discarded. However, logistic and supporting requirements may require a detailed examination to determine feasibility, if staff estimates have not provided a comprehensive analysis of requirements and capabilities.

2.2.3.2.4 List Own Courses of Action Retained. After the commander has tested each own course of action for validity, he may find it advantageous to combine into a new own course of action two or more ideas which singly proved only partially valid. He must consider a concept for this new own course of action and then test it for validity. Finally, the commander lists those valid own courses of action that he will retain.

2.2.3.3 Analysis by Opposing Own Courses of Action and Enemy Capabilities. The commander tests each own course of action against each enemy capability. The nature of these analyses is quite different from previous ones. Heretofore, enemy and own actions affecting the mission have been considered individually, in turn, while other elements of the problem have been held relatively static. Here, the commander conducts a dynamic analysis in which he considers each element as a free variable that interacts with others simultaneously or in sequence. The value of each test depends on:

1. The thoroughness with which it is completed
2. The ability of the commander to develop imaginatively the interactions and results which might take place if each own course of action were opposed by each enemy capability.

In a written estimate, state the OCA/EC combination at the beginning of the analysis. For example:

OCA No. 1	EC No. 1
"Capture Zulu Island by amphibious assault."	"Destroy expeditionary forces threatening Zulu Island."

This procedure focuses attention and helps limit discussion to the specific OCA/EC combination that is analyzed.

The commander studies each own course of action and each enemy capability sufficiently to visualize the manner in which they might be executed. He visualizes the various actions that his force (or each component force) will have to take to execute each own course of action. He should include in the visualization the satisfaction of all operational requirements. In effect, he visualizes a tentative broad concept of operation for the specific own course of action that he is testing. He studies each enemy capability in a similar manner. Through each analysis, the commander establishes a basis for conclusions on the degree of the enemy's ability to oppose each own course of action, the probable losses, the need for subdivision of own force, the need for alternate plans, the decisiveness of the action, the extent to which the own course of action accomplishes the mission, time factors, and so forth.

In essence, the analysis of OCA/EC combinations may be thought of as a "mental war game." Each own course of action is tested against each enemy capability by considering:

1. Actions that the enemy can take to accomplish the stated enemy capability
2. Actions that the commander must take to implement the stated own course of action in the face of this opposition
3. The interactions that result from the OCA/EC combination

4. Conclusions as to the probable outcome of the interactions.

This interaction analysis provides the basis for judging the feasibility and acceptability of the stated own course of action and for comparing its merits with those of other own courses of action in Step 4.

Note

If time and facilities are available, a commander may gain valuable assistance by utilizing electronic machines capable of gaming the actions he visualizes.

In testing each own course of action against each enemy capability, the commander may find that there are variations in the way in which the own course of action or the enemy capability can be accomplished. He should carry the interaction analysis only to the point at which he has examined each of the variations sufficiently to establish a basis for determining the adequacy of a particular own course of action and its merits in relation to the others; that is, he has drawn conclusions as to the possible results, the advantages, and the disadvantages. Later, after the commander reaches his decision, he can create in his development of the plan a detailed concept of operations to support the chosen own course of action.

The interaction analysis may provide the commander with other results:

1. If the infeasibility of any own course of action becomes readily apparent during an analysis, discard it and concentrate on other analyses.
2. New own courses of action or further enemy capabilities may become evident.
3. The analysis may reveal the necessity for assumptions and additional estimates. If

assumptions are necessary, alternate own courses of action must be developed.

4. The need for further combinations of own courses of action may appear. The justification for combining own courses of action at this point usually rests on an obvious lack of suitability, feasibility, or acceptability.

Two or more own courses of action that are not satisfactory on an individual basis may be joined. The commander must test the new own course of action against each enemy capability to ensure its validity in light of the change made. The fact that individual courses of action fulfill certain requirements or that more than one may be feasible does not mean that a combination of these own courses of action will meet the same tests. On the other hand, if two or more own courses of action pass the tests for suitability, feasibility, and acceptability, it is not necessary to combine them. A combination should be adopted only if it will be more effective in accomplishing the mission.

An assigned task that is a predetermined course of action should be analyzed in the usual manner, since the analysis may reveal weaknesses and a need to modify the assigned task.

When the several analyses are complete, the commander lists all retained own courses of action, including those he has decided to combine.

2.2.3.4 Checkpoints — Step 3. This step is the very heart of the military planning process; it is not surprising then that it is the source of many difficulties. Attention to the following points should enable a commander to avoid the more common misunderstandings in this step of the estimate.

2.2.3.4.1 Enemy Capabilities. Complete objectivity is necessary in listing enemy capabilities; it is always painful to have precon-

ceived notions shattered by unyielding facts. Do not exclude an enemy capability merely because it is unlikely or uncommon. If it affects your mission, retain it; list it low in probability if you will, but do not discard it. In short, do not miss an enemy capability.

2.2.3.4.2 Own Courses of Action

1. Ensure that each own course of action statement is not just a rewording of the mission statement drafted in Step 1. Unless the mission predetermines the course of action, each own course of action statement should be more precise than the mission statement. It should suggest a specific action that is not evident in the mission statement.

2. In considering the concept for an own course of action, avoid using superlatives and clichés as substitutes for real analysis. The concept statement should clearly state what is to be done, how, where, and for how long.

3. Give careful attention to time and space factors; concept statements drawn without them usually prove to be shallow or infeasible.

4. Strive to develop imaginative courses of action that take full advantage of the situation and all available assets.

5. Avoid a course of action that is heavily weighted toward one weapon system when others are readily available.

2.2.3.4.3 Interaction Analysis. You will achieve greater insights and waste less time if you limit each interaction analysis strictly to the specific OCA/EC combination you are "war gaming." For example, discuss matters of combination in the defense of a supported force under the enemy's capability to attack that force. Focus the analysis; the planning process builds thought, it does not limit thought.

2.2.4 Step 4 — Comparison of Own Courses of Action

2.2.4.1 List and Consider Advantages and Disadvantages. The commander's aim at this point is to select the complete own course of action that has the most promise for accomplishing his mission. To support this selection, he ascertains and tabulates the specific advantages and disadvantages that he foresees in adopting each own course of action. A review of the conclusions reached in Step 3 will assist him in this tabulation.

2.2.4.2 Make Final Test for Suitability, Feasibility, and Acceptability. Before the commander selects any one own course of action, he must apply final tests for suitability, feasibility, and acceptability. The detail into which the commander goes in these tests depends in part on his previous judgment of feasibility and the results of his analyses in Step 3. Here again, if the mission is primarily a supporting one, the feasibility test may require detailed examination, if staff estimates have not been prepared with each own course of action in mind.

No unsuitable own course of action will have been carried forward if the estimate has been sound. The analyses conducted in Step 3 should have provided a firm basis for determining whether each own course of action is feasible and acceptable. These determinations must be reached through the judgment of the commander; therefore, commanders may differ in their final determinations. A particular own course of action may seem perfectly feasible to a daring and aggressive commander, but infeasible to a more conservative one.

There is generally some degree of acceptability associated with each own course of action. The variation in degree is called relative acceptability. The primary criterion in determining relative acceptability is the result to be expected from a successfully executed own course of action. The results expected from some will justify very few losses, while others,

such as those designed to repel a major threat to the nation or to create a situation whereby the enemy will be annihilated later, may justify the loss of the entire force.

When considering acceptability, the commander must realistically face the possibility of a failure. If he considers that a particular own course of action is only marginally acceptable, then some unexpected event could easily tip the scales in favor of the enemy.

When the commander completes the final test for suitability, feasibility, and acceptability, he may find that none of the own courses of action he has analyzed meets the requirements of a decision. He may again consider combining own courses of action. He must always analyze any new own course of action against each enemy capability in order to determine whether or not the new own course of action is suitable, feasible, and acceptable.

If no own course of action appears suitable, feasible, and acceptable, the commander should present his conclusions and supporting facts to his superior. His detailed analysis may have revealed probable losses far beyond those estimated by the superior when he assigned the mission. On the other hand, the superior may be willing to pay the price for the success of the mission.

2.2.4.3 Weigh Relative Merits and Select Own Course of Action For a Decision. The commander weighs the relative merits of the various own courses of action and selects the own course of action that, in his judgment, best satisfies the requirements of his mission. The commander's choice is his responsibility alone; he must rely heavily on his professional judgment and experience. He can be relieved of part of his responsibility for his decision only when restrictions are imposed by higher authority — and then only in a very limited sense. Before the commander selects the own course of action, he should ask himself one final question: "Is this the utmost I can do in carrying out my

mission?" His selection should indicate an affirmative answer.

2.2.5 Step 5 - Decision. The commander states the own course of action selected in Step 4 as his decision. The decision expresses his overall plan of action for the accomplishment of his mission. He includes how, when, and where elements that he considers necessary and appropriate. However, when the task assigned him is a predetermined course of action, it is his decision. He may alter the wording of the task, but its significance must remain unchanged.

The wording of the decision is not bound by rigid form. It should be a brief statement that clearly and concisely sets forth the course of action selected and provides only the information that is necessary to obtain intelligent action from subordinates. Observe two general rules in wording the decision:

1. Express it in terms of accomplishment, if possible.
2. Use simple language in which the meaning is unmistakable.

When the commander considers it necessary, he indicates in broad terms how the task will be accomplished; for example, ". . .by amphibious and airborne assault." Two examples are:

1. "This force will destroy airfields and air base facilities on Xray Island by coordinated air and surface attacks commencing on 24 July 19xx."
2. "This force will provide convoy XYZ close protection from enemy attack."

In the second example, the how element will be governed by the nature and types of the forces involved.

2.3 SUMMARIZED GUIDE FOR THE ESTIMATE OF THE SITUATION

Step 1. Mission and Its Analysis (Paragraph 2.2.1)

1. Indicate the source or incentive for the mission
2. State own mission
3. Study superior's mission
4. Study own mission:
 - (a) Identify the objective(s)
 - (b) Identify the physical objectives
 - (c) Note contribution to superior's objective
 - (d) Note the military environment of the operation
 - (e) Note significant elements of the problem:
 - (1) Obvious planning constraints
 - (2) Rules of engagement
 - (3) Assumptions
5. Note relationship with other subordinate commanders in the operation
6. Note enemy situation and objectives
7. Summarize key points in the analysis

Step 2. Considerations Affecting Possible Courses of Action. (Paragraph 2.2.2) (For each factor considered, the commander should draw conclusions as to how it may affect his operation.)

1. The general situation

2. Characteristics of the area of operations:

(a) General factors:

- (1) Political
- (2) Economic
- (3) Psychological

(b) Fixed factors

- (1) Hydrography
- (2) Terrain and topography
- (3) Climate and weather
- (4) Daylight and dark periods
- (5) Locations and distances
- (6) Lines of transportation and supply
- (7) Health and sanitation conditions
- (8) Facilities and fixed defenses
- (9) Area communication facilities
- (10) Missile facilities

3. Examine relative combat power:

- (a) Compare opposing forces
- (b) Compare opposing communications-electronics capabilities
- (c) Compare logistics capabilities
- (d) Compare time and space factors

4. Assess factors of environment and relative combat power:

- (a) Identify deficiencies in information
- (b) Identify sensitive areas of security

(c) Tabulate strength and weakness factors

(d) Make initial determination of adequacy of own force

Step 3. Analysis of Opposing Courses of Action (Paragraph 2.2.3)

1. Enemy capabilities (ECs):

- (a) Consider and list enemy capabilities
- (b) Weigh relative probability of retained enemy capabilities

2. Own courses of action (OCAs):

- (a) List tentative own courses of action
- (b) Consider concept for each own course of action
- (c) Test for suitability and make preliminary tests for feasibility and acceptability to determine retained own courses of action
- (d) List own courses of action retained

3. Analysis by opposing own courses of action and enemy capabilities

Step 4. Comparison of Own Courses of Action (Paragraph 2.2.4)

1. List and consider advantages and disadvantages
2. Make final test for suitability, feasibility, and acceptability
3. Weigh relative merits and select own course of action for a decision

Step 5. Decision (Paragraph 2.2.5). Transform the selected course of action into a formally stated decision.

CHAPTER 3

Development of the Plan and Directive

3.1 BACKGROUND

In completing his estimate of the situation, the commander developed broad concepts of the various possible courses of action to the degree necessary to form the basis for a sound decision. Occasionally, no further refinement of the concept of the selected course of action may be necessary and the commander may be able to prepare his directive and supervise the action without examining the plan in greater detail than he did in the estimate phase. However, it is generally necessary during the development of the plan phase for the commander to reexamine the selected course of action as it may be opposed by various enemy capabilities. This examination provides a more adequate basis for establishing specifically how the decision is to be carried out, who is to do it, and, as necessary, when and where. The need for changes or additions to earlier portions of the estimate may also become apparent.

Although other services do not formalize this phase by giving it a title, in Navy operational planning, the planning required to implement a decision is considered an extension of the planning required to reach that decision; it is therefore considered as a distinct phase. In the development of the plan phase, the commander must:

1. Determine what instructions to give his subordinates so that they may effectively carry out the planned operation
2. Determine the most suitable organization for his forces
3. Provide the means for passing this information and guidance to subordinates and other interested commands.

None of these points is usually covered in adequate detail prior to the development phase.

There are two means by which the commander provides guidance to his subordinates:

1. The directive that initiates the action, governs its conduct, and provides for the measurement of its progress
2. The continuing control exerted by the commander or responsible subordinates in supervising the planned action.

Exertion of control is vital in any operation and depends on:

1. The information and report requirements the commander specifies in the directive
2. Available communication systems that permit the commander to acquire information necessary to monitor the action as it unfolds and exercise continuing control in a fluid situation.

3.2 STEPS IN THE DEVELOPMENT OF THE PLAN

Figure 3-1 shows the nine steps in the development phase. These steps assist the commander in concurrently refining the broad concept of action, preparing the directive, and planning for the control of forces during the supervision of the planned action. Figure 3-2 shows how a directive or OPGEN message evolves from the various steps in the estimate and development phases. The following paragraphs discuss each step in the development phase. (The subparagraphing used in Chapter 2

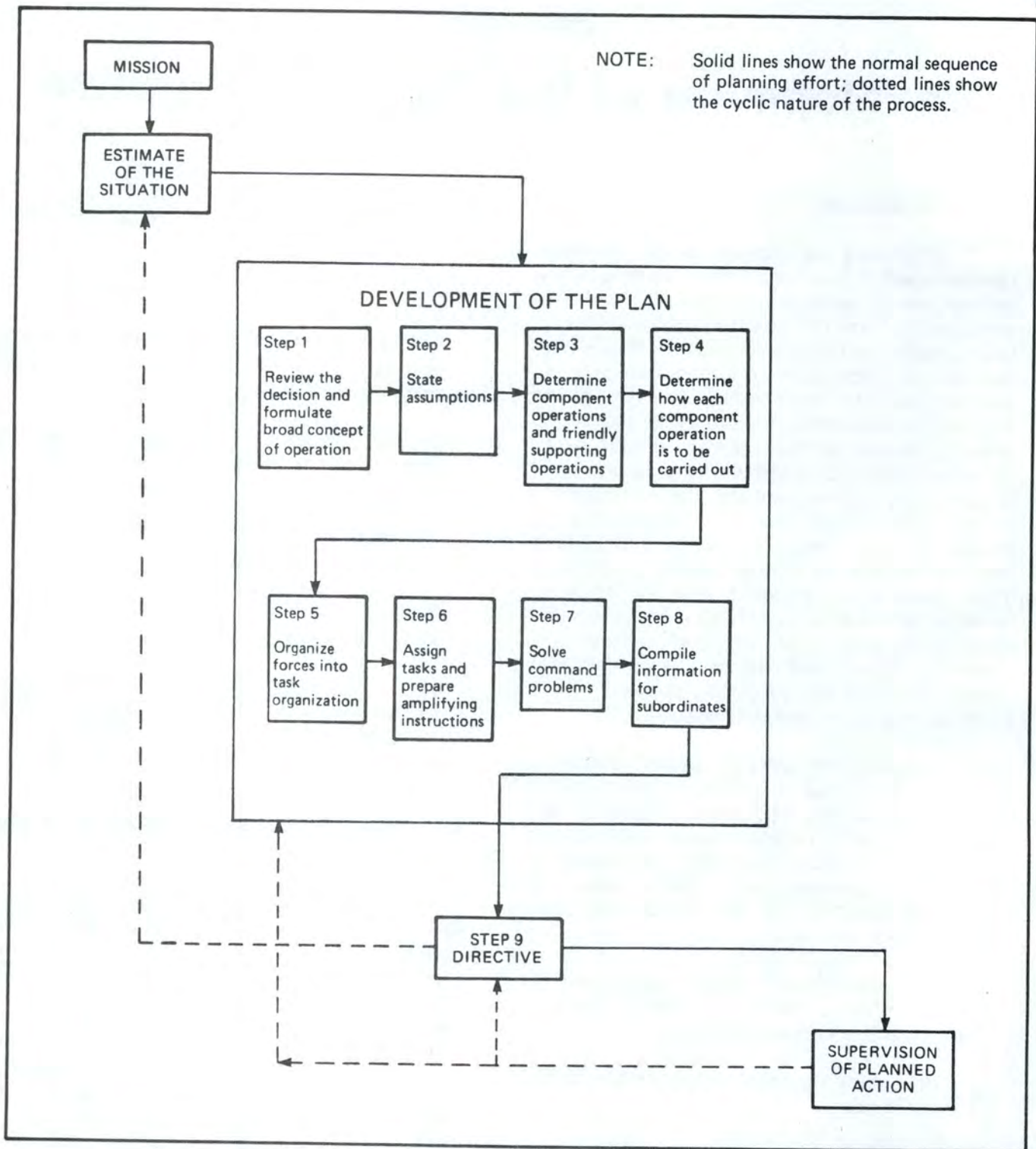


Figure 3-1. The Military Planning Process — Development of the Plan

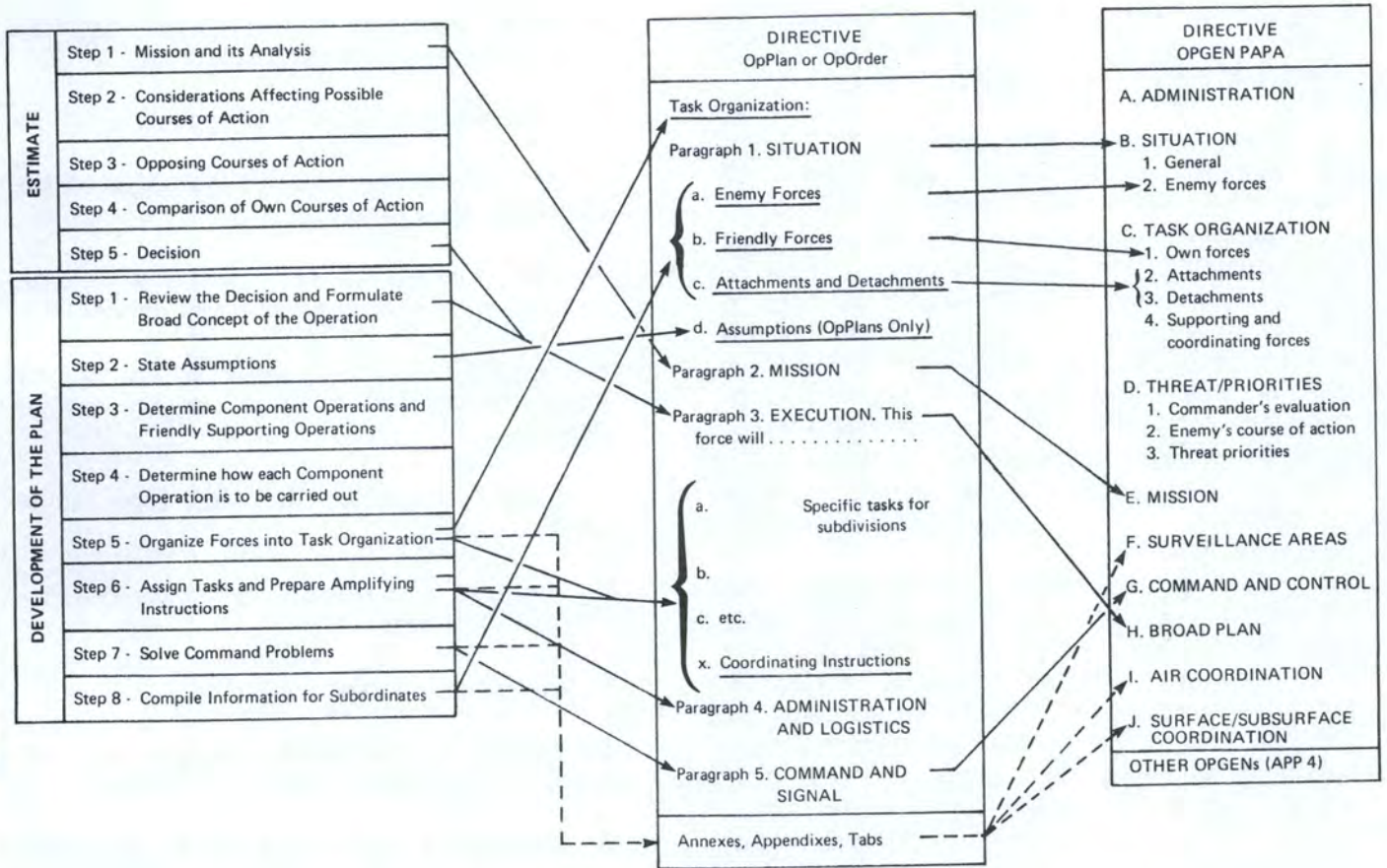


Figure 3-2. The Military Planning Process — Derivation of the Directive

is not used in this chapter, since the development phase does not lend itself to a formal outline.) Paragraph 3.5 contains a summarized guide that can be adapted to cover most plan developments.

In developing the plan that will implement his decision, the commander asks a series of "how-when-where-what" questions that cover the situation facing him. It is by answering these questions in logical sequence that he develops his plan. For example, in Step 1, "what" questions predominate. To formulate his broad concept, the commander first asks: "What is to be done about logistics?" "What is to be done about intelligence?" In subsequent steps he asks more specific questions, but they always flow in logical sequence from earlier questions and answers.

3.2.1 Step 1 — Review the Decision and Formulate a Broad Concept of the Operation. With his mission, objective, and analysis of the selected course of action in mind, the commander reviews his decision in order to formulate a broad concept of the operation. In the estimate phase, he dealt with many, various, and sometimes unrelated ideas. He developed these ideas into tentative concepts in support of enemy capabilities, own courses of action, and opposing interactions. In the first step of the development phase, he must review his tentative concepts in light of the selected course of action. He should retain for the broad concept of the operation those ideas that he considers logical and pertinent to the decision. By so doing, he reviews and summarizes those concepts in the estimate that should be carried over into the development phase to lend precision and refinement to the selected course of action. The commander's purpose in formulating his broad concept of the operation is to give his staff a firm foundation for the subsequent steps of the development phase.

The commander's review of his estimate of the situation should place particular emphasis on:

1. Identification of his physical objectives
2. Particular fields favorable for exploitation by his own or enemy forces
3. The strength and weakness factors
4. The advantages and disadvantages of the selected course of action
5. The conclusions he established in his analyses of the selected course of action
6. Possible avenues available to his own or enemy forces for injecting surprise and/or deception
7. Enemy strengths that his force must avoid
8. Avoiding stereotyped operations and inflexible communications
9. Ensuring operations security
10. Special considerations unique to the problem that require additional thought
11. The rules of engagement, if the operation is to be conducted in a peacetime environment (see paragraph 2.2.1.4.5.b).

These planning considerations are generally those that the commander should investigate before he completes his broad concept of the operation. They will necessitate broad statements concerning such areas as logistics, intelligence, communications, and operations security. His experience may indicate additional factors to be included.

Step 1 in the development phase is very important, since it provides the framework for the detailed planning that follows. Precision is the chief distinction between the concepts developed in the estimate phase and the broad concept of the operation developed here in Step 1. As the commander progresses through the

planning process, he refines his ideas. Each new concept reflects the steps completed and decisions made since the previous concept.

Do not confuse the broad concept of the operation as it is visualized at this time with the concept of the operation in the Concept Annex or OPGEN PAPA. They are prepared in a later step (see paragraph 3.2.6.). The Concept Annex or OPGEN PAPA may or may not contain essentially the same material as the commander's concept discussed here. The difference in the two is that the annex or OPGEN is addressed and distributed to subordinate commanders, while the concept discussed here is the commander's effort to brief his staff. Some of the ideas considered in this step may be expanded and included in other annexes or OPGENs or modified after closer examination in the subsequent steps of the development phase.

3.2.2 Step 2 — State Assumptions. Assumptions made by a superior commander in his directive shall be regarded by subordinates as facts for planning purposes. Assumptions formulated in the estimate phase should be reviewed and repeated. The limitations they impose on the operation must be clearly recognized and borne in mind throughout the development phase. In the preparation of a directive, it is proper to include assumptions in operation plans only; they cannot be used in operation orders and OPGENs. When assumptions are included in a plan, they are placed in subparagraph 1.d of the directive; if assumptions are not used, this fact shall be indicated by the word "None." (See Figures A-3 and A-4 of Appendix A.) Since the presence of assumptions ordinarily requires the formulation of alternate plans, the commander should provide at this point for their preparation. (For a detailed discussion of assumptions, see subparagraph 2.2.1.4.5.c.)

3.2.3 Step 3 — Determine Component Operations and Friendly Supporting Operations. "What is to be done?" "Who is to do it?" In a broad sense, the commander

answers these questions in this step. If the commander can attain the objective by keeping all elements of his force under his immediate tactical command, then a subdivision of the operation into component operations (parts of his force) is not necessary. To attain the objective with optimum efficiency and economy, it is usually necessary for the commander to assign tasks to elements of his force that he does not intend to keep under his tactical command. In addition, he must consider the operations of friendly commanders, who are not under his operational control, but whose forces will contribute to the accomplishment of his mission.

In general, the elements of a force plus their assigned task(s) constitute component operations. A commander frequently finds it necessary to subdivide his operation into component operations for any one of three reasons:

1. To provide for the efficient fulfillment of certain tasks. Separate tactical units can best provide many of the tasks necessitated by defensive, logistic, and intelligence requirements. In other cases, the subdivision of the operation promotes efficiency in the control of large groups of forces, even though they are assigned similar tasks.
2. The diversity in physical characteristics of the force. A carrier striking force may lose effectiveness as an integrated unit, if it is not separated tactically from its logistic support ships. In amphibious operations, a movement group may be divided into fast and slow transport groups to reduce the risk of having faster units face a submarine threat at sea longer than necessary.
3. To provide timely action with respect to multiple or widely separated physical objectives.

The commander must consider the basic principles of organization, listed below, when he creates component operations. He should

keep them in mind while he considers Steps 3 through 6 of the development phase.

1. Unity of effort is essential to the success of any military operation. It is obtained by the proper selection of objectives and by the judicious assignment of objectives to subordinate commanders in the chain of command.

2. Span of control must be considered. There is a limit to the number of different types of functions that one commander is capable of effectively supervising. The exact number depends upon the type of functions involved. Problems resulting from an excessive span of control often may be remedied by interposing intermediate levels of command.

3. Homogeneous assignment refers to the desirability of grouping forces with similar or related functional purposes or objectives. This is achieved by integrating, where practicable, all the necessary basic and supporting elements into self-sufficient tactical units. It is good practice to anticipate the need for special subdivisions to meet certain contingencies. Valuable time may be saved in an emergency if special forces have been designated and communication plans already formulated.

4. Delegation of authority refers to the necessity for delegating to subordinates the authority commensurate with the responsibilities assigned them. This relieves the commander of concern with details.

Figure 3-3 shows, for example, the organization for an operation in which a commander intends to attain his objective by subdividing his force into three component operations with support by one friendly force. There are two CV groups to provide action against separated physical characteristics, one mobile logistic support group to support the CV groups, and one air patrol group to provide intelligence.

After the commander has reviewed his decision and formulated his broad concept of the operation, he begins to determine the requirements and tasks that must be fulfilled to successfully implement the decision. Generally, these requirements conform to the broad categories of action listed in Figure 3-4.

Figure 3-5 illustrates a recommended procedure for determining component operations. List in the first column all requirements for the operation which were already noted in the broad concept of the operation. In each of the subsequent columns, examine one requirement at a time: first list all the tasks that are inherent in the requirement under consideration; then discuss each task to determine whether:

1. Subdivision of the force is necessary or desirable to accomplish the task.
2. Whether a friendly force might accomplish the task.

If the commander determines that a particular task might be accomplished by a friendly force, he must establish that the following criteria will be met, before he completes his discussion of the task:

1. The task is reasonably within the friendly force's capability.
2. The necessary coordination is possible within his own force.

In discussing the tasks that his own forces will carry out, the commander must consider what tasks are to be specifically assigned, whether or not subdivision of his force is necessary, and the factors discussed in the estimate phase — types and numbers of each type, the diversity of ship characteristics and capabilities, separation of targets, and the nature of the tasks to be assigned. The commander must examine those tasks that he specifically assigns to

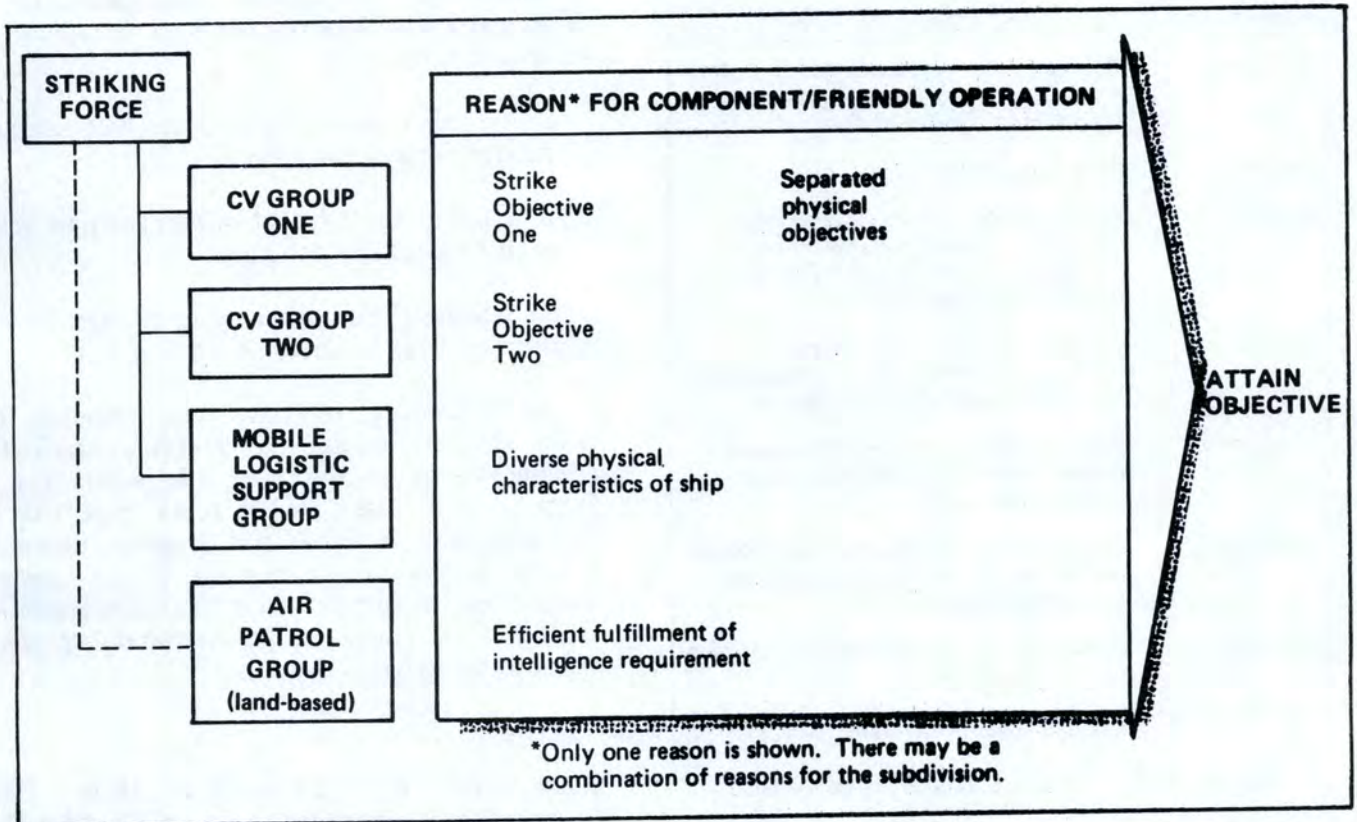


Figure 3-3. The Military Planning Process — Subdivision of Forces in Development Phase

determine the nature of the subdivision that is most appropriate for its accomplishment.

There are some tasks that the commander should not assign; however, even though he does not assign them, he should consider them in sufficient detail to ensure that they are feasible. Tasks that the commander should not assign include:

1. Tasks that are appropriate for assignment to echelons below his own subdivisions. These tasks will be assigned by his

subordinates to lower echelon commanders. For example, a commander who intends to subdivide his force into carrier battle groups (as indicated in Figure 3-5) would leave the assignment of screening tasks to the group commanders.

2. Tasks that are matters of standard operating procedure or tactics need not be assigned to anyone. For example, no ship need be assigned so specific a task as protecting itself against air attack.

Requirement	Tasks
Offensive	Neutralize, destroy, blockade, or capture a specific physical objective such as an enemy force, facility or base.
Defensive	Provide protection of own forces.
Support	Protect, cover, provide close support, escort, fire support, minesweeping, minelaying, deception, diversion, or other forms of support.
Logistic	Provide mobile logistic support, underway replenishment, transportation, and other forms of logistic support.
Intelligence	Provide combat or other intelligence; conduct search, reconnaissance, and weather observation.
Movement	Move elements in temporary subdivisions preliminary to further operations, such as in a redeployment.
Training	Conduct preparatory operational training, such as rehearsals.

Figure 3-4. Broad Categories of Action

The assignment of some tasks may depend on future developments for which the commander must provide suitable counteractions against less probable enemy capabilities. (Figure 3-5 indicates a necessary task in the event an enemy surface threat develops.) Economy of forces often dictates that no opposing forces be permanently assigned against every enemy capability; instead, the requirement can be satisfied and flexibility maintained by designating forces on a "when formed" basis. The commander should consider tasks of this type as carefully in this and succeeding steps as permanent tasks. It is good planning procedure to list the tasks and complete the planning process for them, just as for any other task; but subdivisions so created should continue to bear the notation "when formed."

When the commander's discussions of the tasks listed in Figure 3-4 are complete, he summarizes them by:

1. Listing those tasks that he will assign to subdivisions of his force
2. Listing the type of subdivision to which each task will be assigned
3. Noting the number of each type of subdivision that he should form.

In discussing separate requirements and tasks, the commander may arrive at conflicting conclusions as to the best subdivision for his force in each case. This is to be expected; but the discrepancies should not be great, unless the concept is weak and uncertain. The commander should resolve conflicts in a final paragraph and then list his final subdivisions and the major tasks to be assigned to each.

3.2.4 Step 4 — Determine How Each Component Operation is to be Carried Out.

The purpose of Step 4 is twofold:

1. To determine the composition and strength of the subdivisions the commander has decided to create
2. To consider mutual support and the coordination of interrelated tasks.

Step 4 is not intended to be just a rediscussion of all the factors introduced in the broad concept of the operation. When the commander considers the composition of the subdivisions, he must carefully examine each component operation to determine how it will be carried out so that the forces he needs to ensure its accomplishment are recognized. He should discuss each component operation in a separate paragraph in which he examines the

Requirements	Tasks	Means? (Type of Force)	To Be Done By Own/Friendly Force	Subdivision Necessary? (Yes/No)	Type/No. Of Subdivisions
OFFENSIVE	1. Destroy Black airfields in areas YOKE and ZULU	2 CVs	TF 21 (own force)	Yes	2 Carrier Battle Groups
	2. Interdict Black shipping by air and surface action	2 CVs 2 CGs 4 DDs 6 DDGs	Same	Yes	2 Carrier Battle Groups 1 Surface Action Group (when formed)
	3. Destroy Black cruisers by air and surface action	Same as Task 2	Same	Yes*	Same as Task 2
DEFENSIVE	1. Provide ASW screen to surface combatant units (CVs and CGs)	8 FFs	TF 21	Yes	2 Carrier Battle Groups 1 Surface Action Group (when formed)
	2. Provide air defense of surface combatant forces	2 CGs 6 DDGs Carrier Air Wings (on 2 CVs)	Same	Yes	Same as Task 1
LOGISTIC	1. Provide under-way replenishment	2 AOE's 1 AFS	TF 22	No	No
INTELLIGENCE					
OTHER					
*May be necessary if presence of surface threat develops.					

Figure 3-5. Sample Procedure for Determining Component Operations

subordinate commander's operation in sufficient detail to determine how operational requirements will be satisfied and what forces are needed to satisfy them.

Some of a subordinate commander's operational requirements include the specific tasks assigned his component force and some involve tasks not specifically assigned. The commander

should consider a subordinate's assigned tasks in sufficient detail to determine how they can be carried out with the forces assigned. He should also consider whether a subordinate will have sufficient forces for all tasks. For example, a force commander would not assign a carrier striking group the task, "provide antisubmarine screen," but he would ensure that the group commander had sufficient ASW forces for

protection. Thus, when he considered the subordinate's requirements, he would discuss the ASW problem sufficiently to visualize how protection against submarines would be achieved and then ensure that enough destroyer types were assigned for protection. This procedure is tantamount to a test for feasibility.

Composition is the primary consideration in Step 4, but it is not the only consideration. The commander must also consider mutual support; that is, the support of one unit or subdivision by another. He is the only one in a position to impose the requirement for mutual support on his forces, he knows what is planned and envisioned for each component of the force as a whole, and he has the authority to direct mutual support. In this connection, the commander may determine to assign support tasks to the tasks already developed in Step 3, if a new need appears at this time.

The commander must also consider coordination of interrelated tasks; that is, the coordination of the efforts of two or more subdivisions or friendly forces. Coordination is essential to an operation, especially in an amphibious assault and in logistic support, and is the responsibility of the commander promulgating the plan, since he is the common superior of the subdivisions concerned and also the commander who makes the determination of what assistance will be required of friendly forces. In addition to interrelated tasks of force operations under his command, he must also consider how coordination will be handled when his forces' operations are interrelated with those of a parallel or superior command.

The nature and scope of military operations are too varied to permit compilation of a detailed guide for completing Step 4. The commander may find it necessary to make some of the general determinations listed below when he discusses how to carry out component operations.

1. Allocation of the number and types of basic and supporting units to each operation.

2. Type and extent of support required in each operation from other component or friendly operations.

3. Instances that require instructions to control and correlate own and friendly operations with respect to calendar and clock time, prescribing routings, designating rendezvous and operating areas, and other matters to ensure cooperation and to prevent mutual interference. Commanders of tactical units must provide all instructions and evolution plans which are necessary to bridge the gap between the superior's instructions and existing doctrine and standing operating procedures. Consult appropriate publications in the NWP series in connection with this step and use standard plans and formulations when appropriate.

4. Plans, as necessary, for the determination of logistic requirements, procurement of material, and distribution of logistic support within the scope of policies and procedures established by superiors in the operational and administrative chains of command. Account must be taken of the lead time necessary for the procurement of critical material.

5. Plans, as necessary, for the collection, recording, processing, and dissemination of intelligence.

6. Provision of measures for operations security (OPSEC), including communications security and counterintelligence, and for assessing intelligence information lost despite security measures.

7. Provision for necessary training and rehearsals to ensure an adequate state of readiness.

8. Provision for submission of necessary reports for the exercise of control during the preparatory and supervision of the planned action phases.

Do not infer that all of the items indicated as taking substance in this step must be or can be completed before proceeding to subsequent steps. If detailed plans are not prepared when their need becomes apparent, make a notation that they must be accomplished at a later time.

In Step 4, the commander discusses all considerations in terms of the various requirements of each subordinate commander. Since tasks assigned to subordinate commanders are also analyzed in their respective estimates, the question often arises as to the degree to which the commander should carry out his analysis. The commander's primary interest is to assure himself that the subordinates to whom tasks are assigned can accomplish them with the forces allocated. Therefore, he should carry his analysis to the point where he can judge the sufficiency of force allocation.

3.2.5 Step 5 — Organize Forces Into Task Organization. After the commander has decided upon the manner in which his force is to be subdivided, determined how each component operation is to be carried out, and established both the forces required for each subdivision of his force and the adequacy of his available forces to meet these requirements, he must organize his forces into a task organization. To do this, he must:

1. Assign specific elements to task subdivisions to satisfy force requirements
2. Formulate a command structure to continue the necessary planning, provide the essential cohesion between component operations, and carry out the operation.

Many factors influence the assignment of elements to particular subdivisions. Special characteristics, speed and endurance limitations, states of readiness, current locations or employments, and times of activation or deactivation of subdivisions are among the principal considerations. Existing organizations, such as divisions and squadrons, should be maintained intact when possible.

Provision of a command structure may require only the designation of a subordinate to command each subdivision of the force. Large operations may require complex chains of command to ensure that adequate control is efficiently exercised.

A task organization is best formulated using the procedure listed below. Write the final task organization in the form indicated, so that it can be copied directly into the directive.

1. Prepare an organizational diagram, based on the contemplated subdivision of the force. Ensure that the basic principles of organization are observed (see paragraph 3.2.3).
2. Assign descriptive titles and letter and number designators. (See note in Figure 4-1 for standard Navy designation system.)
3. Assign units to subdivisions to meet requirements. Ordinarily, a commander should not further organize or subdivide the forces he assigns to his subordinates.
4. Designate subordinate commanders. Except at high levels of command or under special circumstances, assignment of subordinate commanders depends upon lineal precedence among unit commanders and commanding officers.
5. List task subdivisions in sequence and letter them a, b, c, etc. For convenience in arranging paragraph 3 of the directive, list task subdivisions that have identical tasks in sequence. Assign each subdivision a designating number and a descriptive name and list the name and rank of the commander opposite each subdivision title. (In operations involving only U.S. Navy forces, operational or administrative titles of commanders may be used in lieu of name and rank.) Directly below the descriptive title, list the composition of each task subdivision and opposite this the total number of ship or aircraft

types that comprise the administrative units. For example:

b. 21.2 AIR DEFENSE GROUP	RADM BU
LONG BEACH (CGN 9)	1 CGN
DesRon 41	8 DDG

c. 21.3 SEARCH AND RE-CONNAISSANCE GROUP	CDR CA
VP 8	9 P3C

6. Indicate the composition of each task subdivision, when appropriate, using the administrative short title (as in the foregoing example) or the name or designation number of the unit included. Units absent from the administrative organization and or additional units present are shown as follows:

DesRon 6 LESS	2 DDG
SEMMES (DDG 18)	1 FF
SubRon 10 PLUS	7 SSN
DACE (SSN 607)	

7. Indicate flagships using the letter(s) "F" in parentheses after the ship name where it appears in the task organization. For example:

	<u>Flagship</u>
MT WHITNEY (LCC 20) (FFF)	fleet
NIMITZ (CVN 8) (FF)	force
BIDDLE (CG 34) (F)	group

If the task organization is that of a task group, the task group flagship can be indicated by "(FF)" and the task unit flagships by "(F)."

The level of detail to which a commander should go in developing his task organization is a function of his echelon of command and his mission. In general, the level of task organization should be consistent with the tasks assigned in Step 3. If a commander intends to assign specific tasks to a certain subdivision, that subdivision should appear as a part of his task

organization; otherwise, a commander should not further organize or subdivide the forces he assigns to his subordinates. When the task organization is extensive, it is advisable to list only the major subdivisions on the first page of the directive and prepare a Task Organization Annex that provides the complete and detailed task organization.

3.2.6 Step 6 — Assign Tasks and Prepare Amplifying Instructions. The formal development of paragraph 3, Execution, and paragraph 4, Administration and Logistics, of the directive and the annexes or OPGENs which support them is completed in this step. (See paragraph 4.2.5 for a discussion of the preparation of annexes and paragraph 4.1.8 for a discussion of OPGEN messages.) The tasks and amplifying instructions were determined and discussed in Steps 3 and 4 and were the basis for the task organization formed in Step 5. In Step 6, the commander expresses the tasks in formal language, which can be copied directly into the directive, and assigns them to the appropriate subdivisions.

The Concept Annex and OPGEN PAPA are designed to give an overall picture of the operation. If the directive uses the OPGEN format (discussed in paragraph 4.1.8 and detailed in Allied Maritime Message Formats, APP 4), OPGEN PAPA provides the commander with a means of issuing intentions, directives, and tactical instructions for an operation. If the directive uses the OpPlan or OpOrder format, the Concept Annex is included primarily for clarity of purpose. It is referenced after the statement of the decision and before the beginning of the lettered task subparagraphs of paragraph 3. If the annex is not used, a brief statement of the concept may be included to amplify the decision statement. The material included in the annex will vary extensively with the type of operation and the information in other annexes. It may include aspects of the commander's thinking which might not be evident from the tasks assigned, such as intentions, duration, limitations, or timing.

Paragraph 3, Execution, states the commander's decision; each lettered subparagraph contains the specific tasks assigned to each task subdivision. When assigning specific tasks, the commander should allow his immediate subordinates maximum latitude of decision consistent with the required correlation of operations. The commander should give instructions in relation to how a task is to be accomplished only to such extent as may be required for complete understanding and effective coordination among his subordinates. If a commander desires to express guidance as to how he prefers to conduct certain phases of an operation, but does not care to assign detailed tasks for every conceivable action, he may indicate his desires in the concept annex. For example: if a commander thinks that air strikes should be conducted from X miles off the coast, but realizes that conditions or requirements may be such that the CV group could be closer to the coast, he should not assign as a task, "Conduct air strikes from a position X miles from Y base," but indicate the desirability of the "X-mile" distance in his concept annex.

The lettered subparagraphs for each component force in the organization follow the decision statement. Arrange them in the same sequence as the task organization (established in Step 5) and use the same task subdivision titles. Beneath each subdivision title, list the specific tasks to be assigned and any instructions which apply to it alone and that may be required to ensure cooperation or to avoid interference with another task subdivision. Assign tasks in terms of accomplishment, using the imperative, rather than the future, tense. State task assignments in brief, positive language, which cannot be misunderstood. When two or more task subdivisions have identical tasks, list the subdivisions in sequence, as in the task organization, but write the task statements only once. For example:

- c. Minesweeping Unit Alfa
- d. Minesweeping Unit Bravo

e. Minesweeping Unit Charlie

- (1) Destroy mines in Area Zulu.
- (2) Mark sweep areas with navigational buoys.

In order to foster teamwork and avoid repetition, coordinating instructions are issued. OPGEN PAPA provides a general format (see Figure 3-2) and supplemental OPGENs are used for specific instructions. An OpPlan or OpOrder always contains paragraph 3x, Coordinating Instructions, which embodies general instructions of an operational nature common to two or more task subdivisions. Exercise care to avoid ambiguity or doubt as to the identity of subdivisions which are referred to in this manner. Indicate instructions relating to cooperation, security, time, duration of events, and the time or conditions under which the directive is effective (if other than the date/time group in the heading). When applicable, include a cancellation date and authority to destroy the directive. If there are no task subdivisions, paragraph 3x may contain or refer to all necessary tactical instructions. General instructions which amplify the material contained in paragraph 3, such as battle, defense, search, and movement plans, are frequently provided in annexes, which should be prepared at this point. Ordinarily, reference is made to these annexes in paragraph 3x. For example:

3x. Coordinating Instructions

- (1) Cruising Instructions in accordance with Annex F.
- (2) Electronic Warfare in accordance with Annex Q.
- (3) Movement reports in accordance with Annex R and NWP 7.

Paragraph 4, Administration and Logistics, contains the necessary administrative and

logistic arrangements and procedures. It sets forth what supplies, facilities, and services are available; who is responsible for providing them; and how, when, and where they will be provided. If the necessary information is already available to subordinates in the logistic plans of a superior or elsewhere, reference to the source of information is sufficient. If using OPGEN format, consult OPGENs KILO and PAPA. If using OpOrder format and logistic information and instructions are lengthy and detailed, place them in the Logistics Annex and refer to the annex here. Place orders directing the movement of forces to furnish or receive logistic support in paragraph 3, not in paragraph 4. If there is no information for paragraph 4, use the word "None."

In order to measure progress and to provide data by which to judge whether the operation is proceeding according to plans and whether the plans will lead to the accomplishment of the mission, the commander includes in paragraph 4 the information and reports that he requires from subordinate commanders. He must carefully consider the mission and objectives to ensure that the reporting system will monitor relevant activity and provide meaningful measurements. (See paragraph 5.1.1.)

3.2.7 Step 7 — Solve Command Problems.

The instructions for inclusion in paragraph 5, Command Signal, of the directive are prepared in this step. Paragraph 5 ordinarily includes:

1. Designation and location of a second in command of the overall operation (the component commanders were designated in Step 5)
2. The location of the commander
3. Amplification of command relationships or division of responsibility, if required (and particularly information on command responsibility to enable the command to continue effective operations in conditions created by high-yield weapons)

4. Identification of the communication plan (the Communication Plan Annex or OPGEN ROMEO)

5. Recognition and identification instructions

6. Electronic policy

7. Code words and code names

8. Liaison.

If the commander prepares his own communication plan, it is prepared at this point, as are any other annexes or OPGENs that amplify command and signal matters.

3.2.8 Step 8 — Compile Information for Subordinates.

The additional material that is to appear in OPGEN PAPA or in paragraph 1 of the OpPlan or OpOrder is prepared in this step. Paragraph 1, Situation, summarizes the general picture of the current situation for subordinate commanders under four subparagraphs: Enemy Forces, Friendly Forces, Attachments and Detachments, and Assumptions (the latter for an OpPlan but not for an OpOrder or OPGEN PAPA). OPGEN PAPA discusses the same categories, yet is more specific in that it addresses task organization, threat assessment, mission, and so forth (see Figure 3-2). (Although the following guidance pertains only to paragraph 1 of an OpPlan or OpOrder, it is equally pertinent to drafting an OPGEN, as outlined in APP 4.)

The commander sets forth such information on the general situation as will permit his subordinates to understand the background for the planned operation. It is customary for all U.S. services to preface the lettered subparagraphs by giving a brief and pertinent summary of the overall current situation, including, if appropriate, statements of missions of higher authority. Detailed items of common knowledge need not be included, since they only serve to obscure the pertinent facts that

should be brought to the attention of the commander's subordinates.

Subparagraph 1a, Enemy Forces, contains all available and essential information on enemy forces that may have a bearing on the operation. The information is presented in numbered subparagraphs, one for each subdivision of the enemy forces on which information is available.

Subparagraph 1b, Friendly Forces, contains essential and pertinent information only on forces that are not listed in the task organization. Each force is listed in a numbered subparagraph. The commander may or may not include forces that are contained in the task organization of the superior's directive. The choice usually depends upon whether or not subdivisions of the commander's task organization hold copies of the superior's directive. Information on friendly forces should be brief and should be restricted to that required for proper coordination of operations. Operations of higher echelons are covered first, followed by operations of equal or lower echelons. The list of friendly forces should include any U.S. and Allied naval, air, or ground forces whose operations may affect own operations.

Subparagraph 1c, Attachments and Detachments, lists the units that will be attached to or detached from the force during the course of the operation and the times the units will attach or detach. If this information is indicated in the Task Organization, use the statement "See Task Organization." If no attachments or detachments are contemplated, use the word "None." When attachments are numerous and are required to support specific events, discuss them in relation to pertinent events in the Schedule of Events Annex and refer to the annex here.

Subparagraph 1d, Assumptions, is contained in operation plans only, not in operation orders or OPGENs. List the assumptions upon which the plan is based or use the word "None."

In drafting paragraph 1, the commander should analyze, screen, and supplement information contained in the corresponding paragraph of his superior's directive to provide pertinent information for his own subordinates and their level of planning. The commander should not reference the Situation paragraph of his superior's directive, unless he knows that his subordinates have copies of the directive.

Information incorporated in paragraph 1 should include only that required for an intelligent comprehension of the directive by those who receive it. When information available is too extensive for convenient handling in the body of the directive, include it in the Intelligence Annex and refer to the annex in paragraph 1.

3.3 REVIEW AND MODIFICATION OF THE PLAN

When the commander has completed the eight steps in the development phase, he has concluded his initial appraisal of the situation, provided a complete plan of operation, and formulated the material that is to be incorporated in his directive. If the development has been prepared properly, all material necessary for a directive is contained therein, in the form in which it is to be used, and all support required from sources outside the command has been considered and steps initiated to ensure that the support is available. In other words, the commander has prepared himself to translate his decision into action without delay when circumstances warrant it.

At this point in the planning process, the commander should have gained an appreciation of the relative importance of much of the material in the estimate and development phases. If time and other considerations permit, this is the point at which he should review the material produced in the planning process, extend the examination of obscure areas, eliminate unnecessary materials, and refine the product in general. His review of the plan should be coordinated to ensure that:

1. All elements of the plan are properly evaluated.
2. The plan conforms to the guidance set forth in Step 1 and pertinent directives.
3. The plan ensures optimum operations security (OPSEC) without degrading the effectiveness of the planned operation.

The review should also examine such areas as enemy intelligence capabilities, planned unit movements, air traffic control procedures, and communication procedures and practices, to reduce the likelihood of prior enemy knowledge of operations.

3.4 STEP 9 — PREPARE AND COMMUNICATE DIRECTIVE

Step 9 involves actual preparation of the directive. The directive communicates in a formal manner those decisions made earlier in the estimate and development phases. If the development of the plan has been carried through completely, preparation of the directive requires only that the substance of the plan be placed in prescribed format and that the clerical chores of printing and distributing the directive be completed.

A directive is any communication, oral or written, that initiates or governs action, conduct, or procedure. It may be transmitted by any means of communication. Usually it follows a standard form familiar to both the originator and recipient.

At times a directive merely issues instructions that vary in scope from the very simple to the very complex. In the most common usage of the term in military planning, however, a directive is the written instrument by which the plan of a commander is promulgated. (For types of directives and their functions, see paragraph 4.1.)

The directive that a commander promulgates generally consists of a basic OpPlan or OpOrder and its supporting annexes or a series of OPGENs. The annexes to an OpPlan or OpOrder contain complementary and/or supplementary information and, though they are often entitled "plans" themselves, they are integral parts of the directive. They are prepared as annexes only to avoid encumbering the basic plan with excessive detail. The basic OpPlan, OpOrder, or OPGEN PAPA normally contains only the orders and instructions necessary to convey a brief and clear picture of the general situation, mission, objective, tasks assigned to subordinate units, and other essential information. Annexes and subsequent OPGENs, on the other hand, contain detailed procedures and amplifying information that expand upon the more general information in the directive. Annexes include evolution plans (such as battle, search, movement, antisubmarine warfare, and antiair warfare plans), instructions necessary for control (such as the Communication Plan Annex), and parts that provide material too complex to be covered completely in the basic plan (such as the Concept, Logistic, and Task Organization Annexes). Subsequent OPGENs include, for example, OPGEN GOLF, ASW Policy, and OPGEN DELTA, ASUW Policy.

Information and data for the directive are prepared, compiled, and kept up-to-date during the development of the plan, since much of the material formulated during the development phase can be transposed almost unchanged into the directive. (See Figure 3-2.)

3.5 SUMMARIZED GUIDE FOR DEVELOPMENT OF THE PLAN

Step 1. Review the Decision and Formulate a Broad Concept of the Operation (Paragraph 3.2.1)

1. Review the following aspects of the decision and estimate:

- (a) Identification of physical objectives
- (b) Important enemy weaknesses and own strengths
- (c) Enemy strengths to be avoided
- (d) Degree of reliance on surprise
- (e) Limitations and special considerations regarding communications, communications security, logistic support, intelligence, protection, operations security, movement, and other requirements.

2. Formulate a broad concept of the operation.

Step 2. State Assumptions (Paragraph 3.2.2)

Step 3. Determine Component Operations and Friendly Supporting Operations (Paragraph 3.2.3)

1. Determine all requirements associated with the selected course of action.
2. Examine each requirement:
 - (a) Determine inherent tasks.
 - (b) Determine who will carry out each task (friendly force or own force) and whether or not tasks must be specifically assigned.
 - (c) Determine whether or not those tasks that must be specifically assigned to own forces require subdivision of the force.
 - (d) If subdivision of the force is required, determine the type and number of subdivision(s) best fitted.
3. Resolve differences in the required subdivisions.

4. Summarize by listing component and friendly operations, i.e., the subdivisions and tasks to be assigned them.

Step 4. Determine How Each Component Operation is to be Carried Out (Paragraph 3.2.4)

1. Discuss each component operation, noting how requirements will be satisfied.
2. Note the type and number of forces required to conduct the component operation effectively.
3. Ensure adequate provisions for mutual support and coordination of interrelated operations.

Step 5. Organize Forces Into Task Organization (Paragraph 3.2.5)

1. Prepare an organization diagram.
2. Assign descriptive titles and letter and number designators.
3. Assign elements to subdivisions.
4. Designate subordinate commanders.
5. Prepare Task Organization Annex if required.

Step 6. Assign Tasks and Prepare Amplifying Instructions (Paragraph 3.2.6)

1. Assign tasks to subdivisions.
2. Identify tasks that are to be performed by two or more subdivisions and develop necessary instructions to coordinate the operations of subdivisions.
3. Determine the coordinating instructions necessary to direct and control administrative and logistic support of the operation.

4. Prepare Concept Annex or OPGEN PAPA and other supporting annexes or OPGENs if necessary.

Step 7. Solve Command Problems (Paragraph 3.2.7)

1. Designate the chain of command for the operation.
2. Select the locations for the OTC and the second in command.
3. Provide for communications and reports essential to the exercise of command.
4. Prepare supporting annexes or OPGENs if necessary.

Step 8. Compile Information for Subordinates (Paragraph 3.2.8)

1. OpPlan or OpOrder:
 - a. The general situation
 - b. Enemy forces
 - c. Friendly forces
 - d. Assumptions (OpPlan only)
 - e. Prepare supporting annexes if necessary.
2. OPGEN PAPA:
 - (a) Prepare OPGEN
 - (b) Prepare supplemental OPGENs.

Step 9. Prepare and Communicate Directive (Paragraph 3.4)

CHAPTER 4

The Directive Format

4.1 TYPES OF DIRECTIVES

Types of directives in common use by the Navy include warning orders, letters of instruction, campaign plans, outline plans, contingency plans, operation plans, operation orders, and general operating (OPGEN) messages. Unified Action Armed Forces, JCS Pub. 2; Joint Operation Planning System (JOPS), Vol. I; Allied Maritime Message Formats, APP 4; and certain NATO agreements prescribe standard formats for all of these directives except warning orders and letters of instruction. Joint formats are discussed and shown in Appendix A. Since the information and instructions contained in these directives provide a common point of departure for making a decision and for ensuring actions by subordinate echelons of command, rigid adherence to format is required. Common interpretation of instructions by all subordinates is basic to the success of any operation.

4.1.1 Warning Order. A warning order may be issued when it is desired to alert subordinate commands to impending operations. It is a preliminary notice of an order or action that is to follow and is designed to give subordinates time to make necessary plans and preparations. In general, it follows the format for a letter of instruction.

4.1.2 Letter of Instruction. A letter of instruction is a directive to major commanders of participating forces for planning guidance. It may be distributed to other interested commands for information. Normally, a letter of instruction states the concept, mission, command relationships, and area of operations; gives special instructions such as communication requirements; assigns forces; sets forth planning responsibilities; and specifies reports that are

required. It is also used to convey general policy guidance of an operational nature that may not be suitable for promulgation by formal operation plan or operation order.

4.1.3 Campaign Plan. A campaign plan is used by major commands to express a commander's decision in terms of specific operations projected as far into the future as practicable. It is the next step after a long-range or strategic estimate of the situation, in which the commander has made his decision as to the line or lines of action to be followed. Its purpose is to express an orderly schedule of the strategic decisions made by the commander to allow sufficient time to procure and provide the means to secure desired or assigned objectives.

4.1.4 Outline Plan. An outline plan is a preliminary general sketch of a plan that portrays the salient features that will govern the complete plan. The term "outline" is used to indicate the degree of completeness of a plan; it may be an outline campaign plan, an outline operation plan, an outline logistic plan, or an outline base development plan. It usually follows the format of the type of plan that it summarizes, but is more comprehensive than a simple listing of the essential elements and less comprehensive than a complete plan. An outline plan is used most frequently by commanders and their staffs to delineate and test a concept in general form, prior to initiating detailed planning. It may also be used to initiate concurrent planning by a number of high-level subordinate commands for complex or extended operations.

4.1.5 Contingency Plan. A contingency plan is an outline course of action to be adopted, with tasks to be undertaken and the forces to be used, should an anticipated event take place in

a specific geographic subarea. Its purpose is to accelerate the actions that the commander can take to meet a foreseen contingency. Its format is similar to that of a campaign plan.

4.1.6 Operation Plan. An operation plan is generally designed for operations that extend over a considerable time and area. It is the normal method used by a commander to translate his concept into lines of action so that subordinate commanders may prepare their supporting plans or orders. An operation plan may be based upon — and thus restricted by — stated assumptions. It may cover a single operation or a series of connected operations to be carried out simultaneously or in sequence. The designation "plan," instead of "order," is often given to a directive, prepared well in advance of related operations, that is to be put into effect at a prescribed time or on signal.

Under the Joint Operation Planning System (JOPS), "operation plan" refers to any plan for the conduct of military operations in a hostile environment prepared by a unified or specified command in response to a requirement established by the Joint Chiefs of Staff. Formats for use with JOPS are described in Appendix A and shown in Figure A-4. Operation plans are prepared in either complete or concept format:

1. Operation Plan in Complete Format (OPLAN) is an operation plan for the conduct of military operations that can be translated into an operation order with minimum alteration. It includes deployment and/or employment phases, as appropriate.
2. Operation Plan in Concept Format (CONPLAN) is an OPLAN in an abbreviated format. It requires expansion prior to implementation as an operation order.

4.1.7 Operation Order. An operation order is a directive issued by a commander for the purpose of effecting the coordinated execution of an operation in the immediate or near future. Since it is an order to conduct an operation, it normally does not contain assumptions. Unless

otherwise stated, an operation order is effective from the date and time it is signed. If an operation plan has been issued that covers the operation in sufficient detail, the operation plan may be implemented as an order with necessary changes; promulgation of a separate operation order is not required.

4.1.8 General Operating (OPGEN) Messages. OPGEN messages are a series of formatted messages that provide a single method for ordering specific tasks and/or exchanging essential information required to control a force at sea. They enable operational and tactical commanders to specify the duties of subordinate commanders and assigned maritime forces. OPGEN messages are designed to provide integration between Allied navies (APP 4 and ATP 1, Vol. I, refer). Figure A-6 contains a summary of OPGEN message formats.

4.2 ARMED FORCES OPERATION PLAN AND OPERATION ORDER

Appendix A contains information on use of the JOPS format for operation plans.

Basically, operation plans and operation orders consist of three parts: a heading, a body, and an ending. (See Figures 4-1 thru 4-3.)

4.2.1 Security Classification. Marking of operation plans and operation orders to reflect security classification shall be done in accordance with OPNAVINST 5510.1. In general, the overall classification of a document shall be marked at top and bottom of the outside of the front cover (if any), title page (if any), first page, and the outside of the back cover (if any). Major components of operation plans and orders, such as annexes or appendixes, will be marked as separate documents, if it is likely that they may be distributed or used separately. The overall classification of the directive normally appears on the top and bottom of each interior page; as a minimum, each interior page will be marked at the top and bottom to indicate the highest level of classification of material present on the page. In addition, each

portion, section, part, paragraph, and subparagraph of a classified document will be marked to show the level of classification or to show the element is unclassified. Figure 4-4 is a portion of an operation order showing the placement of classification markings.

4.2.2 Heading. The heading contains 12 items in the positions and sequence indicated below.

1. Security classification, as required by applicable instructions.
2. A statement of the changes from verbal orders if any. If verbal orders exist, use the statement "No change in verbal orders" or "No change in verbal orders except in paragraph 4." If no verbal orders exist, no statement is necessary.

At the upper right and below the first two items, the following items appear:

3. The copy number, for Top Secret documents only. Each copy must bear a different number and a record of disposition of each copy must be maintained.
4. The issuing headquarters, which includes the title of the issuing officer's command and his administrative title, preceded by such titles of higher echelons as will ensure proper identification.
5. The name of the flagship or the headquarters if on shore.
6. The place of issue or the latitude and longitude if at sea. This information may be encoded.
7. The date/time group of the signature, including the zone description, month, and year, in this manner: "271435Q April 198x." This is the date and time at which the order is effective, unless stated to the contrary in paragraph 3x of the order.

8. The message reference number, which consists of combinations of letters, numerals, or both. The number serves as the originator's serial number for identification and is used for acknowledgment by addressees. Reference numbers shall contain no indication that they are associated with a plan or order so that they can be used in acknowledging receipt of the plan or order in plain language.

At the left and below the foregoing items, the following items appear:

9. The type of directive, indicating in addition whether it is Navy, Army, Air, Joint, or Combined; for example, "Joint Navy/Army Operation Order." If only one service is involved, indicate only the type of directive.
10. The short administrative title of the originator and the serial number of the directive.
11. References to source documents such as charts, maps, other operation plans and orders, instructions, and notices.
 - (a) Each reference shall be labeled with a reference designator, which shall consist of a small letter within parentheses; for example, (a), (b), (c). (Double letters — that is, (aa), (bb), — shall be used if required.) When referring in the body to the source document, the term "reference" followed by the appropriate reference designator shall be used.
 - (b) The originator of a document should verify that pertinent references have, in fact, been distributed to the commands using that document. When all commands on the document's distribution list do not hold a reference, the text of the reference should be repeated as necessary. The term "NOTAL" (not to all) shall be inserted in

parentheses following the description of the reference in the heading.

12. The zone time to be used for the conduct of the operation.

Guidance on the use of items of the heading on other pages or in other parts follows:

1. Repeat the information in items 9 and 10 on each succeeding page of the operation plan or operation order and on each page of all annexes, appendixes, and tabs.
2. The information in items 3 through 8 should appear on the first page of all annexes, appendixes, and tabs that are issued separately.
3. The information in item 11 shall appear in the heading of each annex, appendix, or tab in which the source documents are used as references. Reference designators shall be assigned in the order in which the references occur in each particular annex, appendix, or tab.

4.2.3 Body. The body consists of the Task Organization, the five numbered paragraphs: Situation, Mission, Execution, Administration and Logistics, and Command and Signal; and the Acknowledgment Instructions.

4.2.3.1 Task Organization. This section consists of a list of subdivisions (forces, groups, units, or elements) into which the commander has organized his force for the conduct of the operation covered by the directive. (See paragraph 3.2.5.)

4.2.3.2 Five Numbered Paragraphs. The five numbered paragraphs follow in sequence after the Task Organization. (See paragraphs 3.2.6 and 3.2.7.) General instructions from the NATO agreement are summarized as follows:

Paragraph 1, *Situation*, will always contain subparagraphs a, b, and c. (U.S. exception: subparagraph d, Assumptions — in plans only,

if used.) Paragraph 2 will contain no subparagraphs. There is no restriction on the number of subparagraphs in paragraphs 3, 4, and 5. All paragraphs and subparagraphs will be given headings. Underlining of headings is optional.

Paragraphs 1a, 1b, 1c, 2, 3, 4, and 5 and their headings will always appear in the operation order; however, it is permissible to use terms such as, "No Change," "See Intelligence Summary No. _____," and "Nil" (no information to enter), opposite a paragraph heading. Such terms should be used as necessary to maintain the integrity of the paragraphing and the brevity of the order.

To keep the directive as simple and understandable as possible, details will be incorporated in annexes. Each annex will be referenced in the appropriate part of the body and listed under Annexes in the ending. (In OpPlans and OpOrders for U.S. Navy use only, it is not mandatory to refer to all annexes in the body.)

Paragraph 2, *Mission*, states the task the commander has been assigned (or has deduced) and its purpose.

Paragraph 3, *Execution*, contains a summary of the overall course of action intended. The first sentence, starting with the words, "This force will . . .," states the commander's decision, which is the objective for the commander's force. In subsequent sentences, a brief concept of the operation may be given, describing broadly how the operation is to be carried out. In complex operations, necessary details may be placed in the Concept Annex, which should be referenced here. Each subparagraph (except the last one, which is always numbered as 3x) contains the specific tasks assigned to each task subdivision as listed in the Task Organization. Each subparagraph is identified by a letter in sequence corresponding to that used in the Task Organization. General instructions common to two or more task subdivisions are given in paragraph 3x.

Paragraph 4, *Administration and Logistics*, contains the necessary administrative and logistic arrangements and procedures. It sets forth what supplies, facilities, and services are available; who is responsible for providing them; and how, when, and where they will be provided. The Logistic Annex and/or standard reporting instructions may be referenced here.

Paragraph 5, *Command and Signal*, contains instructions necessary for the exercise of control during the operation. ("Signal" as used here means communications.) This paragraph covers any special features of command that might not be made completely clear by the assignment of tasks in paragraph 3, such as special command relationships and the division of responsibility among various subordinates. The plan for communications and the locations of the commander and his second in command during the operation are also covered here. Detailed instructions regarding communications usually are placed in the Communications Plan Annex.

4.2.3.3 Acknowledgment Instructions. Include acknowledgement instructions if they are necessary. The word "Acknowledge" may suffice. An acknowledgement is interpreted to mean that a directive has been received and is understood.

4.2.4 Ending. The ending consists of the signature, authentication, list of annexes, distribution, and security classification.

4.2.4.1 Signature. The signature of the commander is required to make a directive effective. It appears below the acknowledgment instructions on the right-hand side of the page; if it is near the top of a page, it should have at least two lines of text above it. List below the commander's signature his rank and command title. (In OpPlans and OpOrders for U.S. Navy use only, the operational and administrative titles may be added.) For example:

JOHN DOE

Captain, U.S. Navy

CTG 52.2, Screen Group, and ComDesRon 6

The commander signs (1) the original copy of the directive, which becomes the file copy, or (2) a stencil or mat, so that his signature will be reproduced on all copies. When annexes, appendixes, and tabs are issued with the directive, the appearance of the signature on each is optional, but should be consistent throughout. A signature is required on each supplementary document issued separately.

4.2.4.2 Authentication. Authentication is the process of certifying that copies of a directive are exact copies of the original directive approved by the commander. Authentication is required when the commander signs only the original copy. It is accomplished by an authorized member of the commander's staff, usually the flag secretary, signing all other copies of the directive. The authenticating officer may sign a stencil and reproduce his signature on all copies. The authentication must appear on the same page of the copy on which the commander's signature appears on the original. (The same procedure is followed if the commander signs the original copy of an annex, appendix, or tab issued separately.) If the commander signs the stencil, the reproduction of his signature suffices as certification, and authentication is not required. The basic requirement to establish the validity of a directive is the appearance at the end of the basic document of either the commander's signature or the authentication.

4.2.4.3 List of Annexes. Annexes are listed serially by capital letters on the left-hand side at the end of the directive. All annexes that support the directive shall be listed. Although not required for U.S. Navy forces, it is generally good practice to refer to each annex in the body. By following this practice, the commander refers to the Intelligence Annex in paragraph 1, the Logistics Annex in paragraph 4, and the Communication Plan Annex in paragraph 5.

4.2.4.4 Distribution. The distribution is listed on the left-hand side directly below the list of annexes. It shows to whom the directive is to be transmitted and the medium of transmission. When more than one copy is to be delivered to an addressee, the total number of copies is shown in parentheses. Consider the size and degree of decentralization of each command in determining the number of copies it is to receive. Address all mail using administrative titles, if possible, although in combined commands this may be impractical. No reference should be made to the task organization. Remember that the most carefully planned and written directive can easily be reduced in effectiveness, perhaps fatally, if the commands who need to know do not receive copies. Thus, in considering who should receive copies, take care not to emphasize security or economy at the expense of overall effectiveness. When the distribution is extensive, provide it in the Distribution Annex and refer to the annex here.

4.2.4.5 Security Classification. As required by applicable instructions.

4.2.5 Annexes, Appendixes, and Tabs. The information covered in the supplementary parts of a directive is so varied that only general instructions for their preparation and use can be given. Figure 4-5 provides a format for an annex to an operation order.

1. Any portion of a directive that becomes too extensive for inclusion in the directive may be placed in an annex. Amplifying information, not appropriate for inclusion in an annex, may be prepared as an appendix to the annex. When appropriate, information amplifying an appendix may be prepared as a tab to the appendix.

2. Annexes, appendixes, and tabs are given titles descriptive of their contents.

3. Appendixes are listed at the end of the annex to which they belong, tabs at the end of the appendix to which they belong. If a directive is extensive, include a table of contents showing the annexes, appendixes, and tabs and their titles.

4. Annexes, appendixes, and tabs are designated serially; annexes by capital letters, appendixes by Arabic numerals, and tabs by capital letters. Pages are fully identified, each marked as to annex, appendix, tab, and page number.

5. When parts of a directive are issued separately, the headings (and endings if signed) of annexes, appendixes, and tabs are identical with those of the basic OpPlan or OpOrder. When issued with the basic directive, only the type of directive, the short administrative title of the originator, references, and the serial number of the directive need be shown in the heading. (See items 9, 10, and 11 of paragraph 4.2.2.)

6. In general, no standard format is prescribed for the body. When practical, the body may be developed along the five-paragraph format of the basic directive. The use of charts, diagrams, and tabulations is highly recommended when the subject matter can be adapted to such treatment. If neither format is appropriate, any readily understood form of written manuscript is suitable for the body.

7. Commanders must be careful to eliminate needless duplication of material in both plan and annexes. They should not include material already known to subordinates through orders or standing operating procedures. Some duplication may result from a need to make certain annexes almost completely self-explanatory, so that the basic plan or order need not be issued to units exposed to capture or other special risk (e.g., the Minesweeping Plan Annex or the Air Plan Annex).

8. Assign reference designators (see item 11, paragraph 4.2.2) to source documents used in attachments. The reference designators apply only within the attachment in which they appear.

9. When the distribution of an annex, appendix, or tab differs from that governing the basic directive, a distribution list should be included.

4.3 CHANGES TO DIRECTIVES

Changes to directives may be promulgated by any means that provides the necessary security. Changes are customarily numbered serially and a record of changes entered is kept in each copy of the directive. The number and extent of changes should be held to a minimum by careful planning. Some changes are inevitable, but every effort should be made to reduce the clerical work involved in entering them. This can be done by replacing whole pages and by correcting copies to the extent possible before the directive is first distributed.

Page change is preferable to a pen change. It is generally more economical, provides neater more legible copy, and decreases the possibility of errors and the time expended in making changes. Pen changes shall never be used when the time required for a single addressee to enter all changes on a single sheet (two sides) of paper would exceed that required for him to remove a superseded sheet and insert a new one. Paste-ins shall not be used.

When a revised page contains only a few significant changes from the superseded page, a vertical line shall be placed in the outside margin opposite each change. When a page contains a more significant change, a vertical line shall be placed alongside the first line or heading of the paragraph or other appropriate heading to identify the changed material.

The change number shall be entered in parentheses immediately following the page

number. The word "change" shall be abbreviated as "CH" and followed by a hyphen and the change number. For example: "371 (CH-1)" (page 371, Change 1). No other entry of the change number on each individual page is necessary.

Advance and interim changes are sometimes necessary for rapid promulgation of vital information. They may be attached to the basic publication, in lieu of incorporating the change, pending receipt of the normally promulgated change, provided that a notation is made at the appropriate page or paragraph.

Interim changes are customarily numbered serially and also to indicate the normally promulgated change within which they will be incorporated. For example, "Interim Change 2/3" is the second of the series of interim changes that will later be incorporated within change number three.

Directions for distribution of a directive apply also to the distribution of a change to the directive.

4.4 CHARACTERISTICS OF A GOOD DIRECTIVE

A good directive is *clear*. Each command or agency that uses it must be able to understand it thoroughly. Avoid highly technical language when there is any danger of misinterpretation. Use accepted military terminology and phraseology as an aid to understanding. State all major tasks of subordinates precisely, but in a manner that will allow each subordinate the maximum practicable latitude, when possible, in exercising his initiative. Only when concurrent operations will require extremely close coordination or timing should a subordinate be told precisely how to perform the task assigned.

A good directive is *concise*. Avoid superfluous words and unnecessary details. But do not sacrifice clarity and completeness in the interest of brevity alone.

A good directive is *complete*. It must contain all the information and instructions that are necessary to initiate and coordinate the execution of the operation. Subordinates should not have to ask for additional data. Avoid unnecessary duplication, particularly when it is known that the annexes of a senior's directive are available in the force of a subordinate command. It is usually unnecessary and a waste of time and effort for a subordinate command-

er to include annexes from his senior's directive in his own.

A good directive is *authoritative*. It must reflect the commander's determination and convey positively the commander's intention and will. An indecisive directive may lead to uncertainty and a lack of confidence in the commander.

SECURITY CLASSIFICATION

No changes from verbal orders

Copy No. 1
 Pacific Fleet Force
 and COMSEVENTHFLEET
 BLUE RIDGE (LCC 19) Flagship
 PORT LLOYD, BONINS
 DTG: 250900K May 198X
 Message Ref: 0078-8X

Operation Order
 ComSeventhFlt No. 11-8X

References: (a) CincPacFlt OpPlan 2-8X
 (b) NWP 7
 (c) Charts HO 5941, 2367

Time Zone: Use time zone minus eleven (LIMA) for operations

Task Organization:

- | | |
|--|---|
| <p>a. 71 <u>Northern Striking Force</u>
 CarGru 5
 TRUXTON (CGN 35)
 LEAHY (CG 16)
 Desron 5

 Desron 7</p> | <p>ComCarGru 5
 1 CV
 1 CGN
 1 CG
 1 DD
 3 FF
 1 DD
 3 DDG
 1 FF</p> |
| <p>b. 72 <u>Covering Force</u>
 CruDesGru 5 (less
 DesRons 21, 31, 37)

 CarGru 7
 DesRon 21

 DesRon 31</p> | <p>ComCruDesGru 5
 5 CG
 9 DD
 1 FF
 1 CV
 1 DDG
 2 FF
 3 FF
 1 FFG</p> |

NOTE: The standard Navy designation system with its descriptive titles and letter/number designators is shown in the following example:

Fleet Force (TF)	Group (TG)	Unit (TU)	Element (TE)
77.	1.	5.	9.

For joint operations or special usage the system may be altered to suit the needs of the Commander. (See ATP 1, Vol. I for further details.)

SECURITY CLASSIFICATION

Figure 4-1. Sample Directive (OpOrder) (Sheet 1 of 3)

SECURITY CLASSIFICATION

Operation Order
ComSeventhFIt No. 11-8X

c. 73	<u>Mobile Logistics Force</u> AOE 1, 2 AOR 3, 5 AF 59 AFS 3 DesRon 15	ComServRon 3 2 AOE 2 AOR 1 AF 1 AFS 3 FF 1 DD 1 DDG Misc. Service Craft
-------	--	---

1. SITUATION. Green Military situation in the North Pacific has improved recently. Indications are that Green plans to strengthen his position in the Aleutians.

a. Enemy Forces

- (1) A Green task force consisting of four heavy ships, surrounded by screen, was sighted in the vicinity of Komandorski Islands early on 3 May.
- (2) A large Green convoy is assembling at Petropavlovsk.
- (3) Green submarine and air activity in the Northwest Pacific is increasing.
- (4) Detailed enemy intelligence in Intelligence Plan, Annex D.

b. Friendly Forces

- (1) White submarines are operating between Dutch Harbor and Green homeland.

c. Attachments and Detachments

None

2. MISSION. Prevent Green from strengthening his position in the Aleutian Islands in order to assist in maintaining the security of White sea and air lines of communication to the Western Pacific.

3. EXECUTION. This force will destroy Green forces and neutralize shore installations in the Aleutians by air and surface action. Operations will be conducted in accordance with Concept of Operations, Annex A.

a. Northern Striking Force

- (1) Destroy Green naval and air forces, and neutralize harbor facilities and air installations in the Aleutians west of Dutch Harbor.

b. Covering Force

- (1) Prevent enemy naval forces from interfering with operations of the Northern Striking Force.

c. Mobile Logistic Support Force

- (1) Provide underway replenishment to Northern Striking Force and Covering Force.
- (2) Provide emergency repair and limited upkeep services to North Pacific Force.

x. Coordinating Instructions

- (1) Commander Northern Striking Force coordinate replenishment schedule for both forces.
- (2) This order is effective upon receipt.
- (3) Authorization is granted for destruction of this OpOrder upon completion of the operation or dissolution of task organization.

SECURITY CLASSIFICATION

Figure 4-1. Sample Directive (OpOrder) (Sheet 2 of 3)

SECURITY CLASSIFICATION

Operation Order
ComSeventhFlt No. 11-8X

4. ADMINISTRATION AND LOGISTICS.

- a. Submit reports in accordance with NWP 7.
- b. Logistic support in accordance with Logistics Plan, Annex B.

5. COMMAND AND SIGNAL.

- a. Communications are in accordance with Communications Plan, Annex C.
- b. Commander Northern Striking Force in KITTY HAWK (CV 63) is second in command.
- c. Commander Seventh Fleet in BLUE RIDGE (LCC 19).

Acknowledgment Instructions. Force commanders listed in Task Organization obtain acknowledgment receipts of this Order by administrative commanders assigned and acknowledge by message, using Message Reference Number.

Authentication:

s/B. L.

B _____ L _____

Commander, White Navy
Flag Secretary

W _____ A _____
Admiral, White Navy
Commander North Pacific Forces
and ComSeventhFlt

Annexes

- A - Concept of Operations
- B - Logistics Plan
- C - Communication Plan
- D - Intelligence Plan

Distribution:

By Courier to:

- ComCarGrus (16)
- ComCruDesGru (8)
- ComServRon (8)
- ComDesRons (22)
- SurvGruMidPac (4)
- Commanders Carrier Air Wings (20)
- Carriers (36)
- Cruisers (32)
- Destroyers (160)
- Frigates (80)
- Logistic Support Ships (52)

By White Mail to:

- JCS (8)
- CNO (14)
- CINCPACFLT (7)

SECURITY CLASSIFICATION

Figure 4-1. Sample Directive (OpOrder) (Sheet 3 of 3)

(Secret, Confidential, etc.) → Security Classification

No entry should appear when there have been no verbal orders. → No change from verbal orders

If the originator has no administrative title or if the force involved comprises non-U.S. Navy forces for which Navy administrative titles would have little meaning, the operational title should be used. → Operation Order
ComCarGru 8 No. 12-8X

Reference designators apply only within the plan, annex, appendix or other portion of the document in which they appear. (paragraph 4.2.5) → References: (a) NWP 20
(b) NWP 7

Hull numbers should be included when over-complexity will not result. →

Copy No: 1

Second Fleet
TF 21 Striking Force
and ComCarGru 8
AMERICA (CV 66), Flagship
At sea, Latitude 32°N
Longitude 72° 15'W
DTG: 281300Z April 198X
Message Ref: 0043/8X

Title of operational superior is normally included over the originator's command to ensure proper identification.

Zone Time: Use time zone plus two (OSCAR) for operations.

Task Organization:

a. 21.1 <u>Carrier Striking Group</u>	ComCarGru 8	ComCarGru 2
	STANDLEY (CG 32)	1 CV
	BIDDLE (CG 34)	2 CG
	DesRon 4	4 FF
		3 DDG
		<i>Can be either the short administrative title or the name of the commander. example: RADM B__T__.</i>
b. 21.2 <u>Striking and Covering Group</u>	ComCruDesGru 4	
	DALE (CG 19)	2 CG
	SOUTH CAROLINA (CGN 37)	3 DDG
	DesRon 6	3 FF
		1 DDG
	DesRon 2	1 FFG
	4 DDG	
	4 FF	
	1 DD	

Figure 4-2. Annotated Example of a Navy OpOrder (Sheet 1 of 5)

1. **SITUATION.** Allied shipping is suffering heavy losses from enemy submarines and aircraft operating from Xray and Zulu Islands. CinCLantFlt has directed the capture of Zulu Island and neutralization of Xray Island.

Only so much of the situation as will enable the commander's subordinates to act intelligently is necessary here. A "history" of preceding events is not desired.

a. Enemy Forces

(1) Heavy concentrations of enemy bomber and fighter aircraft are operating from Xray and Zulu Islands.

(2) An enemy naval force of cruisers and destroyers was observed in Latitude 35°N, Longitude 20°W, on 1 May.

b. Friendly Forces

(1) The Joint Amphibious Task Force conducts an amphibious assault on Zulu Island beginning on D-Day.

(2) Land-based air are conducting long-range air reconnaissance of the area of operations.

Information here pertains to only those friendly forces not listed in the task organization and should be restricted to those which may directly affect the action of subordinate commanders.

c. Attachments and Detachments

None

2. **MISSION.** Beginning on D-5 day, neutralize enemy forces at Xray Island in order to assist in the capture of Zulu Island.

3. **EXECUTION.** This force will, beginning on D-5 day, destroy enemy naval and air base facilities on Xray Island and forces based thereon, by air and surface action. Operations will be in accordance with Concept, Annex A; Air Strike Plan, Appendix I; and Surface Strike Plan, Appendix II, thereto.

Figure 4-2. Annotated Example of a Navy OpOrder (Sheet 2 of 5)

For each task sub-division listed in the task organization, a task should be included here and lettered correspondingly.

a. Carrier Striking Group

- (1) Destroy enemy air and surface forces, and air base facilities on Xray Island.
- (2) Protect Striking and Covering Group from enemy aircraft attack.

b. Striking and Covering Group

- (1) Destroy naval bases and coast defenses on Xray Island.
- (2) Protect Carrier Group from enemy surface forces.

When applicable, cancellation date and authority to destroy should be included in this subparagraph.

x. Coordinating Instructions

- (1) D-day is the day of the main troop landing on Zulu Island and is tentatively 20 May 198X.
- (2) Destroy targets of opportunity at discretion.
- (3) Provide gunfire and air support for Joint Amphibious Task Force when directed by Commander Striking Force.

4. ADMINISTRATION AND LOGISTICS.

- a. Submit reports in accordance with NWP 7.
- b. Refuel and replenish from Mobile Logistic Support Group in Area Hemlock.

Figure 4-2. Annotated Example of a Navy OpOrder (Sheet 3 of 5)

5. COMMAND AND SIGNAL.

- a. Communications in accordance with Annex C hereto.
- b. Commander Striking and Covering Group in DALE, second in command.
- c. Commander Striking Force in AMERICA.

Acknowledgment Instructions:

Units listed in Task Organization acknowledge receipt of this Order by message, using Message Reference Number.

When the spacing is such that the commander's signature would appear at the top of the page, at least two lines of the body of the directive should be carried over to appear above the signature.

B _____ T _____
 Rear Admiral, U.S. Navy
 CTF 21 Striking Force
 and COMCARGRU 2

For operations involving U.S. Navy only; task designation, operational title of the originator's command, and the originator's short title normally appear below the signature.

Authentication:

OSCAR SMITH
 Commander, U. S. Navy
 Flag Secretary

If the commander signs the stencil, the reproduced version of his signature suffices as a certification, and authentication is not required.

Figure 4-2. Annotated Example of a Navy OpOrder (Sheet 4 of 5)

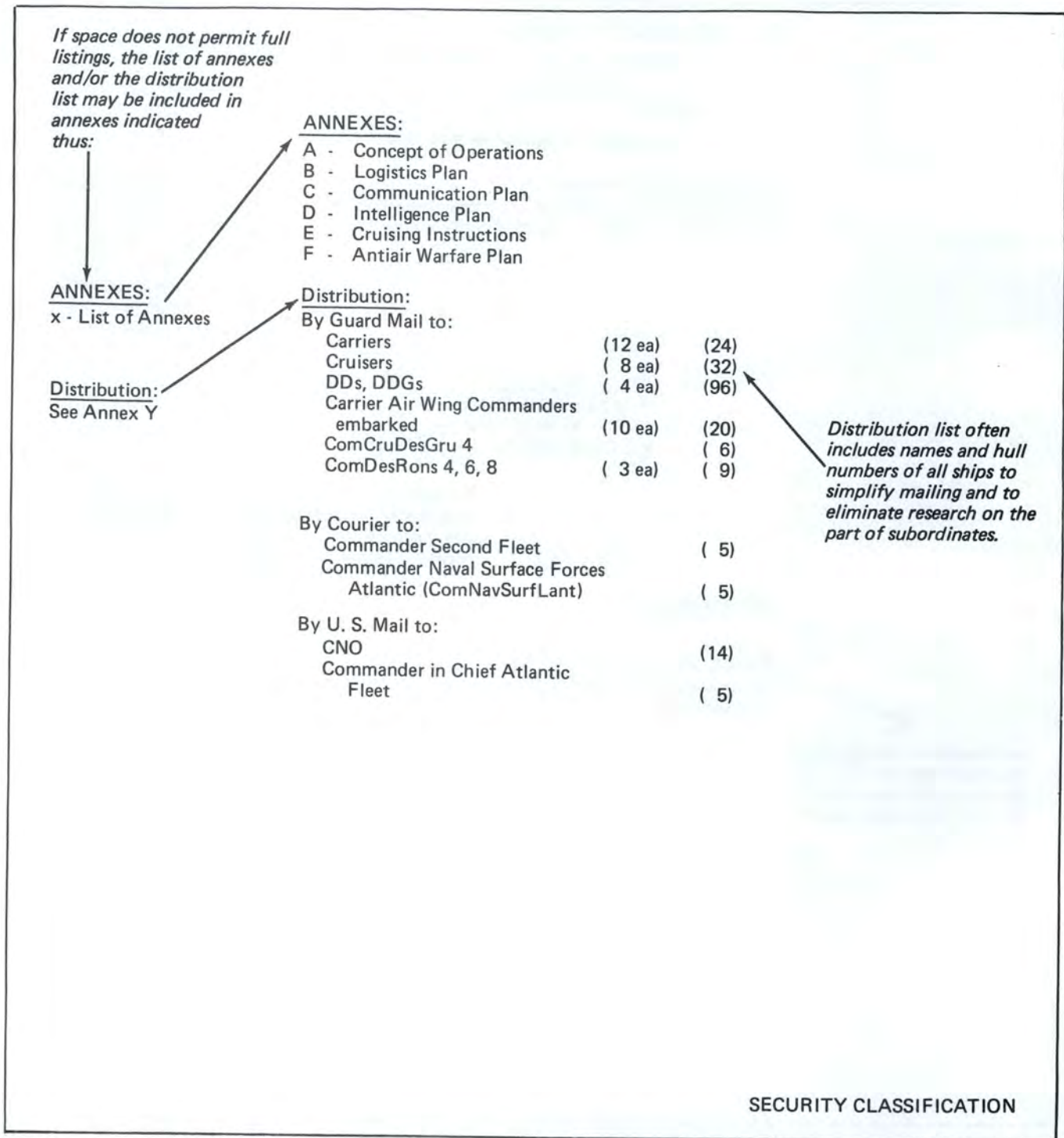


Figure 4-2. Annotated Example of a Navy OpOrder (Sheet 5 of 5)

DTG
 FM CTF TWO ONE
 TO TF TWO ONE
 INFO CNO WASHINGTON DC
 COMNAVSURFLANT
 COMSECONDFLT
 BT
 CLASSIFICATION//SSIC//
 SUBJ: COMCARGRU TWO OPOD 12-8X
 USE OPERATIONS TIME ZONE PLUS TWO
 A. COMSECONDFLT LTR OF INST 0036-8X

1. () SITUATION. ALLIED SHIPPING SUFFERING HEAVY LOSSES FROM ENEMY SUBS AND AIRCRAFT OPERATING FROM XRAY AND ZULU IS. CINCLANTFLT DIRECTED CAPTURE ZULU IS. AND NEUTRALIZATION XRAY IS. ENEMY FORCE CONSISTING OF CRUISERS AND DESTROYERS OBSERVED 1 MAY LAT 35 DEG NORTH LONG 20 DEG WEST. BEGINNING D-DAY JOINT AMPHIBIOUS TASK FORCE CONDUCTS AMPHIBIOUS ASSAULT ON ZULU IS. LAND BASED AIR CONDUCTS LONG RANGE RECCO OF AREA OF OPERATIONS.
 2. () MISSION. BEGINNING D MINUS FIVE DAY NEUTRALIZE ENEMY FORCES XRAY IS. IN ORDER ASSIST CAPTURE ZULU IS.
 3. () EXECUTION. THIS FORCE WILL BEGINNING D MINUS FIVE DAY DESTROY ENEMY NAVAL AND AIR BASE FACILITIES ON XRAY IS. AND FORCES BASED THEREON BY AIR AND SURFACE ACTION
 - A. () TG 21.1 CARRIER STRIKING GROUP COMCARGRU TWO CARGRU TWO WAINWRIGHT TURNER DESRON FOUR. DESTROY ENEMY AIR AND SURFACE FORCES, AIR BASE FACILITIES ON XRAY IS. PROTECT STRIKING AND COVERING GROUP FROM ENEMY AIRCRAFT.
 - B. () TG 21.2 STRIKING AND COVERING GROUP COMCRUDESGRU FOUR DALE SOLAR DESRON SIX DESRON EIGHT. DESTROY NAVAL BASES AND COAST DEFENSES ON XRAY IS. PROTECT CARRIER GROUP FROM ENEMY SURFACE FORCES.
 - X. () D-DAY IS DAY OF MAIN TROOP LANDING ZULU IS. TENTATIVELY TWENTY MAY. PROVIDE GUNFIRE AND AIR SUPPORT FOR JATF WHEN DIRECTED BY CTF 21.
 4. () ADMIN-LOGISTICS. REFUEL AND REPLENISH FROM UNDERWAY REPLENISHMENT FORCE AREA HEMLOCK.
 5. () COMMAND. USE SECONDFLT COMPLAN SIX. COMMANDER STRIKING AND COVERING GROUP IN DALE SECOND IN COMMAND. COMMANDER STRIKING FORCE IN AMERICA. END OPOD.
 6. () ANNEXES ALFA CONCEPT OF OPS ECHO CRUINST FORWARDED ACTION ADDEES BY GUARD MAIL.
- DECL:

NOTE 1: The Task Organization is omitted from the beginning of the Message Plan; it is included in the task paragraph instead. It is only included, however, when the addressees of the message do not have the task organization information, or when there is a change in the organization. If the current organization has remained unchanged, the name of the commanders and their units may be omitted.

NOTE 2: This example is not intended to restrict use of suitable paraphrasing as required for radio transmission.

Figure 4-3. Navy OpOrder in Message Format

(SECURITY CLASSIFICATION)

Operation Order
ComCarGru 5 No. 2-8X

1. () SITUATION. GREEN has captured the WHITE Island of Attu and plans to construct naval and air operating bases thereon. Prevention of GREEN expansion in the NORTH PACIFIC area is required to protect ALASKA and other states of the UNITED STATES from sea or air attack.

a. () Enemy Forces

(1) () A large convoy and covering force are assembling at PETROPAVLOVSK for the prospective buildup of ATTU as an advanced naval and air base. At present the covering force consists of approximately 6 cruisers and 36 destroyer types.

(2) () Approximately 11 submarines, based at PETROPAVLOVSK, are operating in the area.

(3) () GREEN has extensive naval and airbase facilities at PETROPAVLOVSK with approximately 150 fighters, 40 medium bombers and 12 patrol planes based in the area. KOMANDORSKI ISLAND has an advanced fighter and light bomber base with approximately 50 fighters and 50 light bombers.

b. () Friendly Forces

(1) () Submarines of TG 19.2 will conduct reconnaissance and offensive war patrol missions in the KAMCHATKA-KURILES area and will provide SAR and reconnaissance services at KOMANDORSKI and ATTU ISLANDS.

(2) () Planes of TG 19.3, operating from KODIAK will provide long range air reconnaissance.

(3) () Underway replenishment ships of TG 19.4 will provide logistic resupply in support of this operation.

(4) () A major WHITE naval and air base is located at KODIAK.

c. () Attachments and Detachments. None.

2. () MISSION. Prevent the establishment of GREEN bases on ATTU ISLAND during the period 10 June 198X through 1 September 198X in order to avert GREEN expansion in the NORTH PACIFIC area.

3. () EXECUTION. This force will interdict the sea line of communication from PETROPAVLOVSK to ATTU ISLAND and neutralize GREEN base development on ATTU ISLAND by air and surface action.

a. () Carrier Unit

(1) () Destroy enemy aircraft and air base facilities on KOMANDORSKI ISLAND.

(2) () Destroy enemy convoy(s) en route to, and base development on, ATTU ISLAND.

(3) () Conduct air reconnaissance.

(4) () Provide early warning.

NOTE: When a paragraph or subparagraph is unclassified, its subdivisions need not be marked.

(SECURITY CLASSIFICATION)

Figure 4-4. Sample Placement of Classification Markings on an OpOrder

(SECURITY CLASSIFICATION)

Copy No. (when required) _____
Issuing Headquarters _____
Place of issue _____
(may be in code)
Date/Time Group of Signature _____
Message Reference Number _____

Operation Order Number *

ANNEX A
CONCEPT OF OPERATIONS

References:
Zone Time:

- 1.
 - a.
 - b.
- 2. (example of paragraph subheadings)
 - a.
 - (1)
 - (a)

Concerning page numbering, note paragraph 4.2.4. Annex A pages would be marked A-1, A-2, etc. Pages of an Appendix 1 to Annex A would be marked A-1-1, A-1-2, etc. Tabs to any Appendix would be lettered A, B, C, etc., and if they had pages, these would be marked A-1-A-1, A-1-A-2, etc.

Signature

Appendixes:
(numbered)

Distribution

Authentication

Note: The signature and distribution, if same as directive, may be omitted.

*This identification should appear on each page, as well as page number and classification where applicable. Where an annex (appendix or tab) is to be issued separately, the complete heading should appear on the first page. See page 4-3. The ending is also necessary, for the same reason. See page 4-5.

(SECURITY CLASSIFICATION)

Figure 4-5. Format for an Annex of an OpOrder

CHAPTER 5

Supervision of the Planned Action

5.1 INTRODUCTION

Rarely will a commander's plan of an operation anticipate every eventuality, no matter how carefully it has been prepared and executed. Variations, even material differences, between the action as planned and the action as it unfolds may stem from various factors: a simple change in the directive received from higher authority; an unforeseen change in one or more of the elements which formed the basis for the original plan; errors in judgment, misunderstandings, and mistakes; and unexpected losses or gains. It is obvious that each factor must be recognized, its effect on the plan determined, the problems raised by the new circumstance solved, and appropriate action taken to accomplish the original mission (or a new mission if a change has been made).

The process of ensuring that all this is done, and done in a timely manner, is known as supervision of the planned action (see Figure 5-1). Supervision of the planned action falls naturally into two phases: planning for supervision before the action begins and supervision as the action unfolds.

5.1.1 Planning for Supervision of Action. Preparation for supervision of the planned action is a continuous process that begins in the earliest steps of the estimate phase and continues throughout the development phase. In the estimate phase, the commander notes what action his superior will monitor as evidence of his progress, success, or failure. In like manner in the development phase, the commander specifies what reports he will need from his subordinates to evaluate the progress of his mission.

The information that permits a commander to supervise a planned action is often called "feedback." (This was originally an electronic term used to describe the output of an electrical system that was returned to the system and reintroduced for the purpose of correction or control.) It is critical to the success of a plan that a feedback system be specifically tailored for the operation. Standard and routine reports may or may not suffice. Chapter 23 provides a brief summary of the standard operational reporting (OPREP) system, which may be used for reporting information concerning the planned initiation, termination, and results of military operations. To ensure that his feedback system is relevant, the commander must review his objectives and each task assigned to subordinate commanders, identify actions that will truly indicate progress toward these goals, and make provision for monitoring them. If the feedback system is not designed to provide a true index of progress, the commander may be denied vital information or burdened with irrelevant data.

5.1.2 Supervision of Unfolding Action. As the action unfolds, the commander must make timely use of the information he receives. He must continually guide the total effort toward the attainment of the objective, reapportion strength to meet new conditions, and effect coordination as the need for it arises. To meet these demands, the commander must be able to recognize circumstances or situations that present new problems for solution. Finding solutions for added problems depends on continuous planning until the mission is accomplished. This continuous planning is known, for convenience, as the "running estimate." A running estimate requires no fixed form: it can be a chart overlay, on which the commander keeps track

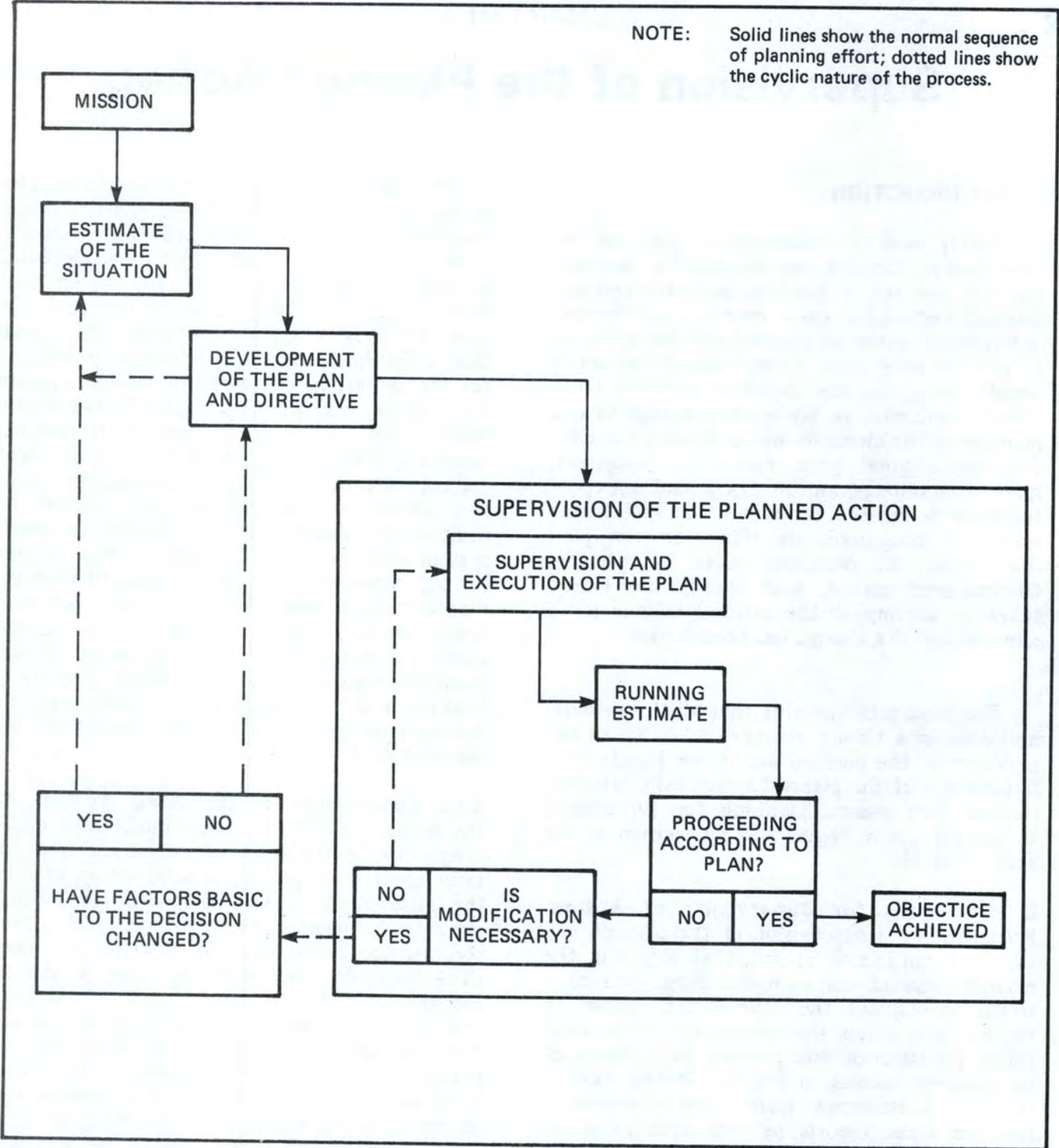


Figure 5-1. The Military Planning Process — Supervision of the Planned Action

of own forces and all current intelligence, or a detailed record of all that occurs.

New problems may require reactions ranging from a simple variation of the existing plan or a clarification of the directive to a radical departure from the selected course of action that involves reworking part or all of the planning. Whatever the degree of change, the commander must be ready and willing to influence events to conform to his plan or, when shaping of circumstances is infeasible, to ensure for his command every possible advantage that will aid in attaining the objective.

All phases of supervision of the planned action are vitally dependent upon effective communications, including both a well-written and complete directive and a sound communication system. Use of the Naval Tactical Data System (NTDS) will increase the speed, volume, accuracy, and ease of interpretation of the information that must be handled in the exercise of command and control and the supervision of the planned action. Well-trained flag plot, commanding officer's tactical plot, and combat information center teams are essential in providing the commander with an accurate and uncluttered picture of the actual unfolding of the planned action.

5.2 INTRODUCTION OF PLANNING CHANGES

The commander should ask himself three questions in deciding whether a change in a

plan is necessary and, if so, at what phase of the planning process the change should be made:

1. Is the operation proceeding according to the plan?
2. Is modification of the plan necessary?
3. Have factors basic to the decision changed?

Figure 5-1 indicates the pattern of logic to these questions and the subsequent planning that should follow. If the answer to the first question is yes or the answer to the second question no, the commander need only continue supervision of his present plan to achieve his objective. His answers to the third question determine the extent of any modification of the plan; they should therefore be carefully considered. If basic factors have changed in some aspect, such as a new command relationship, a change in planning constraints, or another significant element of the problem, the point of reentry into the estimate may be Step 1 - Mission and its Analysis. The commander's awareness of what has changed and his familiarity with the structure of the planning process should indicate to him the proper place at which to commence a change in the planning leading to revision of his decision. The added assurance that the commander obtains should more than compensate for the time lost in reconsidering changed factors before issuing a change of plan. He can be confident that his plan is soundly based and that the best available effort is concentrated on attaining the objective.

PART II

Logistic Planning

- Chapter 6 The Nature of Naval Logistics**
- Chapter 7 Organization for Logistic Planning**
- Chapter 8 Preliminary Logistic Planning**
- Chapter 9 Development of the Logistic Plan**
- Chapter 10 Logistic Plans and Annexes**

CHAPTER 6

The Nature of Naval Logistics

6.1 THE AIM AND SCOPE OF NAVAL LOGISTICS

The full development of the unique flexibility, mobility, and capacity for sustained striking power of modern naval forces depends on the provision of the logistic support that will enable forces to remain at sea for lengthy periods without having to return to bases for replenishment. The aim of naval logistic planning is to analyze logistic considerations regarding own and component forces to:

1. Assist in formulating sound plans
2. Make precise determinations of command requirements for development of planned operations
3. Provide for the timely availability of all requirements when operation plans so direct.

The term *logistics*, as it applies to all the military services of the United States, has been defined broadly by the Joint Chiefs of Staff to indicate the great range of our wartime and peacetime logistic activities. The JCS definition states that logistics is:

"The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, those aspects of military operations which deal with: (a) design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of material; (b) movement, evacuation, and hospitalization of personnel; (c) acquisition or construction, maintenance, operation, and disposition of facilities; and

(d) acquisition or furnishing of services."

6.2 FUNCTIONS OF NAVAL LOGISTICS

The functions of logistics appear at each level of command of the Navy. They include nine areas:

1. Determination of requirements — the planning and computation that determine the identity of requirements, the quantity and quality thereof, and their general need as to initial time and place.
2. Procurement of requirements — that activity that initiates and follows up the action necessary to implement the determination of requirements.
3. Warehousing — that activity that stores and protects materials procured.
4. Distribution — those activities that control and allocate the various logistic items; assign personnel; and dispense material, facilities, and services.
5. Transportation — the movement of military personnel and the shipment of material by land, sea, and air. This activity includes the operation of land, sea, and air terminals; cargo handling; packing and preservation; materials handling; and traffic management.
6. Construction — that activity undertaken as a part of both combat operations and base development, including the building of utilities warehouses, repair and maintenance facilities, airfields, tank farms, hospitals, and barracks; and the construction of ships, aircraft, and armament.

7. Maintenance, repair, and salvage — that activity necessary to keep materials, ships, and facilities in a serviceable condition or to restore them to serviceability.

8. Personnel services other than medical or dental — that activity that includes training, messing, quartering, morale services, burial, and grave registration; handling prisoners of war, alien civilians, and displaced persons; and performing functions related to civil affairs and military government.

9. Medical and dental services — that activity which includes evacuation, hospitalization, professional care, preventive medicine, sanitation, hygiene, rehabilitation, associated professional training, and medical and dental research.

6.3 LOGISTIC RESPONSIBILITIES

The functions of logistics are the responsibility of commanders in all echelons of the Navy. However, at each level of command (1) the nature, scope, and extent of logistics vary, reflecting the interrelationships of various commands and (2) logistics considerations and responsibilities vary, depending on the arrangements of the next higher echelon and the time and resources available to the commander. Figure 6-1 provides an indication of the more discernible relationships of logistics to commands at various levels.

6.3.1 Department of Defense. The Department of Defense is responsible for the preparation of military strategic and logistic plans and the review of major material and personnel military requirements. The Office of the Secretary of Defense is responsible for the review and coordination of military requirements as they become demands upon the national economy for manpower, material resources, and facilities. As planning for the support of military operations proceeds, the requirements of the services and the ability of

the economy of the country to fill these requirements must be carefully estimated and balanced. This is accomplished by close coordination among the Joint Chiefs of Staff, the services, and other government agencies.

6.3.2 Department of the Navy. The Department of the Navy develops logistic plans in support of its strategic plans, which are based, in turn, upon joint strategic plans developed by the Joint Chiefs of Staff. Under these plans, the Navy designates the scope of its responsibilities and outlines its policies for the logistic support of its operating forces. The Chief of Naval Operations is responsible for the determination of requirements. The civilian executive assistants to the Secretary of the Navy coordinate and direct the efforts of the Naval Material Command with respect to promulgation of policies and procedures governing procurement of the logistic items for which they are responsible. Distribution on the highest naval level involves the allocation of material items, personnel, facilities, and services of the various activities of the Navy and is the primary responsibility of the Chief of Naval Operations.

At field levels, logistics is the responsibility of commanders, who must see to the fulfillment of their own operational needs. Procurement at the field level is purely a military activity, involving the transfer of men, material, and services already in the naval distribution system from point of origin to point of use. Final distribution is a function of specific logistic agencies, units, and forces.

6.3.3 Unified and Specified Commands. The unified or specified commander, as applicable, directs combat operations within his command. He formulates and issues the overall plans and broad directives to coordinate the Army, Navy, and Air Force units assigned to his command.

Directly subordinate to the unified commander are his service (Army, Navy, Air Force) component commanders, who are responsible (1) for carrying out the plans and policies of

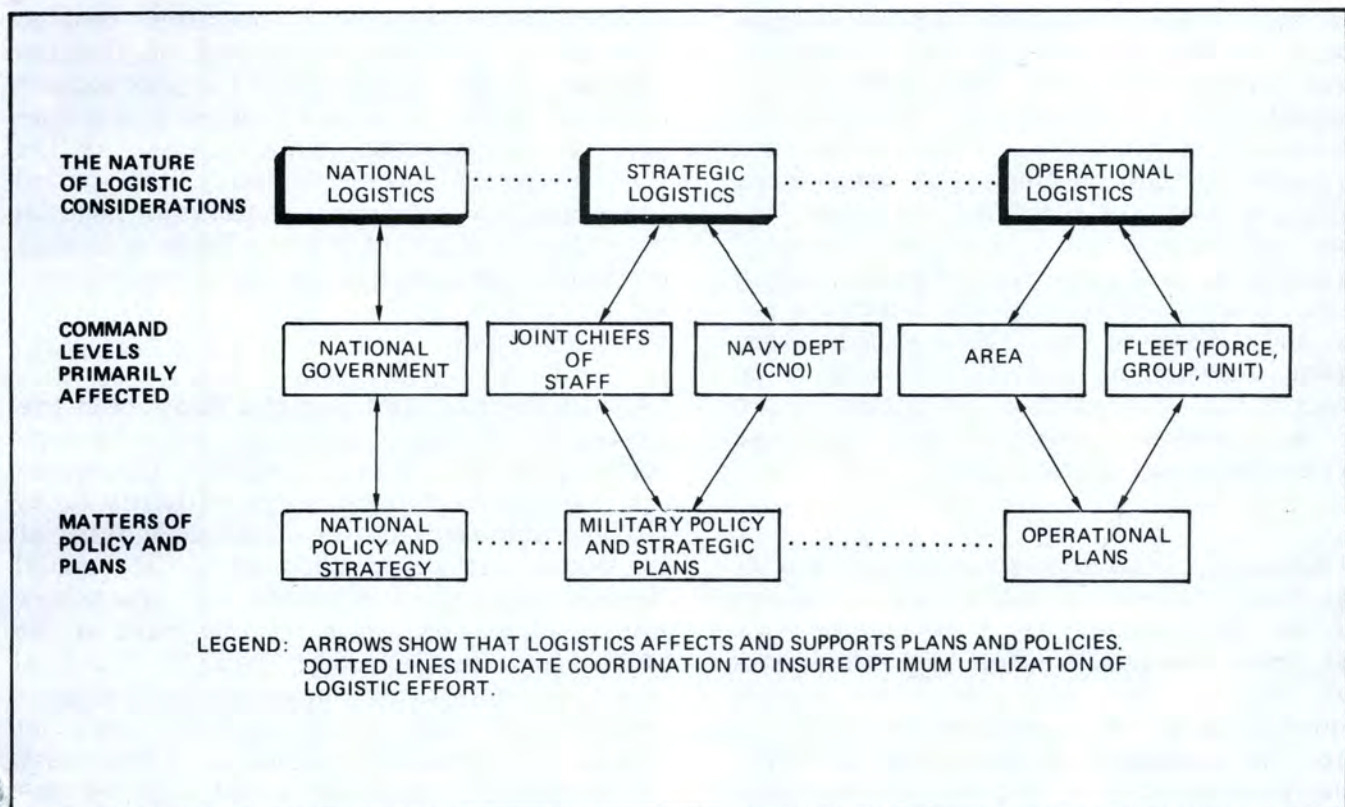


Figure 6-1. Relationships of Logistics to Command Levels

the unified commander within their own commands and (2) for the administration and logistic support of their own commands within the broad and overall framework of the unified command.

The unified commander has the authority to organize the elements of his command into subordinate unified commands or joint task forces, as he may determine are necessary. Under certain conditions, he may also establish one or more uni-service forces.

6.3.3.1 Subordinate Unified Commands. A commander of a subordinate unified command, within his area of responsibility and subject to modification by his appointing authority, has

functions, authorities, and responsibilities similar to those of the commander of a unified command. However, service component commanders within the subordinate unified command will communicate directly with their respective service component commander of the parent unified command on matters which are the responsibility of the services or as directed by their respective chiefs of service. Otherwise, the duties and functions of the service component commanders within a subordinate unified command are similar to those of the component commanders of the parent unified command.

6.3.3.2 Joint Task Forces. A joint task force is composed of assigned or attached

elements of the Army, the Navy or Marine Corps, and the Air Force, or two or more of these services, which is constituted and so designated by the Secretary of Defense or the commander of a unified command, a specified command, or an existing joint task force. Unlike a subordinate unified command, the joint task force is not a permanent command arrangement. It is established when the mission to be accomplished has a specific limited objective and is dissolved when the mission has been accomplished or the need for the mission no longer exists. Its constituent units then return to the operational control of their respective service component commanders.

Generally, units that are a part of a joint task force continue to receive logistic support through their own services. However, the joint task force commander plans and coordinates this support. He determines the logistic requirements of the operations for which his force was established and so informs the component commanders of the unified command. The joint task force commander exercises logistic coordination or control only to the extent necessary to meet those logistic needs and/or requests of subordinate commanders that are necessary to the successful accomplishment of his mission.

6.3.3.3 Uni-Service Forces. In a unified command, missions that require operations of a uni-service force are normally assigned to the component commander of that service. Under exceptional circumstances and with the approval of the Joint Chiefs of Staff, a unified commander may establish a separate uni-service force, the commander of which operates directly under him.

6.3.4 Logistics in a Unified Command. In a unified command, service component commanders normally retain responsibility for the operating details of their respective support systems. However, the unified commander is authorized to exercise directive authority in the area of logistics in order to ensure the effec-

tiveness and economy of operations and to prevent or eliminate duplication of facilities and unnecessary overlapping of service support systems. Under wartime conditions and whenever critical situations make diversion of the normal logistic process necessary, the unified commander is authorized to utilize all facilities and supplies of all subordinate forces as he may determine are necessary for the accomplishment of his mission.

6.3.4.1 Coordinated Logistic Support in the Area. In addition to his responsibility for supporting his own forces, a component commander may be required by higher authority or by local circumstances to provide special types of supplies or services to other forces. Coordinated logistic support is a matter of interservice policy agreement, which may be made at the JCS, department, or local level. On the local level, it is normally accomplished by agreement between the senior commanders of component forces in a particular location on a temporary or emergency basis. Factors that must be considered in establishing responsibilities for coordinated support include:

1. The service that is predominant in the area or phase of operation
2. The service that is the principal user of the items or services in question
3. The capabilities, present and future, of the force to which it is proposed to assign responsibility
4. The extent to which overstocked items and excess capacity of facilities are used or redistributed
5. The degree to which units or commands are self sufficient.

6.3.4.2 Logistic Support by Navy Component Commanders. Navy component commanders have the following logistic responsibilities:

1. To establish overall logistic procedures and policies for naval forces in the area in accordance with directives, practices, and policies of higher authority
2. To coordinate long-range Navy logistic planning in order to support logistically the Navy's part of the unified commander's campaign plan
3. To plan for logistic support of naval forces involved in specific operations
4. To coordinate and supervise logistic support activities of lower echelon commanders within the area (service force, naval air force, fleet marine force, other type commands, and sea frontiers)
5. To coordinate and supervise activities of joint logistic agencies or units in the area for which the Navy is responsible.

6.4 NAVAL LOGISTIC GROUPS AND FACILITIES

The groups and facilities that render logistic support directly to ships and units of the fleet include:

1. The continental shore establishment
2. Advanced bases
3. Mobile support groups
4. Underway replenishment groups.

Figure 6-2 illustrates the relationships of these groups and facilities.

6.4.1 Naval Bases. One of the aims of naval logistics is to make operational forces as independent of shore bases as possible. This does not mean that shore bases are to be eliminated, but rather that replenishment is to be supplemented by means other than return of combat vessels to shore bases. In line with this concept, naval logistics has reached the point where a

mobile source of supply — the underway replenishment group — periodically replenishes operating units at sea in or near the area of combat for limited periods up to 90 days.

An advanced base may use existing facilities or require the construction of new facilities. Its primary function is to provide a forward source of supply for combatant forces and underway replenishment groups.

6.4.2 Mobile Support Means. The steaming time required for return to continental, permanent overseas, or advanced bases for replenishment restricts the ability of combat forces to conduct sustained operations. Geographical and economic restrictions preclude establishment of advanced bases in locations and numbers adequate to permit complete and flexible operations. For these reasons, underway replenishment and mobile support groups provide mobile logistic support to increase the ability of naval forces to conduct sustained operations.

6.4.2.1 Underway Replenishment Group. The underway replenishment group is the link between naval bases and the operating forces afloat. It consists of mobile logistic support ships, screened and protected, which replenish combatants while underway. They provide fuel, ammunition, nuclear weapons, provisions, high-usage supplies, replacement aircraft and crews, personnel, and mail. Material services are largely confined to towing, limited maintenance, and salvage. Other services, such as the provision of electronic and ordnance technicians, may be included when demanded by the situation and when the required types of service vessels and personnel are available within the logistic force. Since task forces cannot steam indefinitely without in-port periods for maintenance, the support provided by the underway replenishment group should be based on underway periods of about 90 days.

Several underway replenishment groups may be combined to make up an underway replenishment force for the support of task forces operating in widely separated areas. The

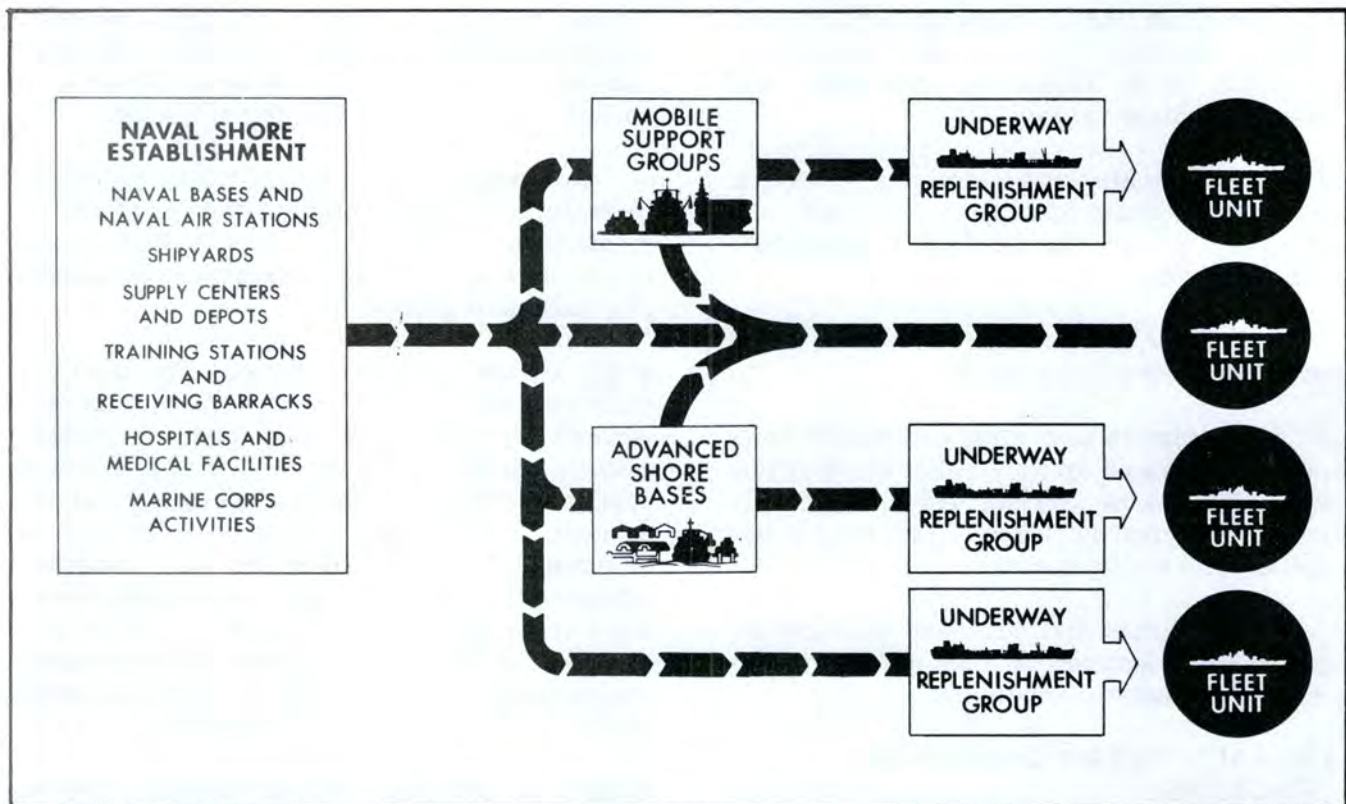


Figure 6-2. Operational Fleet Support

development and refinement of underway replenishment forces represents a great advance in the ability of the naval force to provide itself with the strength needed for long and uninterrupted operations.

6.4.2.2 Mobile Support Group. The mobile support group, in effect a naval base afloat, was brought to a high level of efficiency during the Pacific operations of World War II. Such a group is made up of ships and seagoing facilities in an anchorage. It provides logistic support to combatant forces and supplies underway replenishment forces and certain shore-based naval facilities. Supplies, services, and replacement personnel and equipment are provided from auxiliary ships and craft. The logistic support rendered parallels that of outlying and

advanced bases. In fast-moving naval warfare, the mobility and flexibility of the mobile support group is a particular advantage, for its use eliminates the tremendous effort required to develop and maintain advanced bases, which quickly outlive their usefulness solely because of location.

6.5 ECONOMY IN LOGISTICS

Logistics is concerned not only with the mere procurement of material, personnel, facilities, and services; but also with their economical distribution and effective utilization or expenditure. In combat, a round of ammunition or a drum of fuel inefficiently used is of scarcely more value than one that has never been delivered. In the policies and practices of

logistics there must be an underlying desire to provide the means of war in the most efficient manner possible. The logistic staff officer's thinking must be conditioned: (1) by the requirements of concurrent and subsequent operations and (2) by a sense of responsibility for the economy of the total war effort of which he is a part. In order to produce the maximum return from available logistic resources, it is essential that economy and efficiency are maintained in the expenditure of logistic supplies delivered to the operating forces.

6.5.1 Effective and Efficient Logistic Planning. The objective throughout the entire logistic planning process is to achieve an effective and efficient material support operation.

6.5.1.1 Planning of Requirements. Economy in logistics originates with accurate and realistic forecasting of the logistic requirements for an operation. The use of planning tools, coupled with good judgment, is the best assurance that the logistic foundation will be sound. Cushion or safety allowances may be appropriate at times, but must be closely examined by the planner. Delivery on time and in the required quantities will tend to encourage consumer forces to requisition only necessary material and services and enable them to fix operation time schedules with confidence.

6.5.1.2 Planning of Procurement. Precise calculation of lead, order, and shipping time will prevent disruption of the procedures of logistic agencies and clear the lines of supply. While it is not always possible for operational commands to allow for optimum lead time, proper planning can avoid dislocation and inefficiencies in

production facilities due to rush orders. Overselling of an operation by assigning too high a priority to its needs will reduce the overall effort against the enemy. Requisitioning for actual needs, including minimum essential reserves and operating stocks, will maintain economy of effort of production facilities.

6.5.1.3 Planning of Maintenance. Efficient maintenance and repair of combatant ships requires utilization of the capacity of the production activity. This is possible only if repairs are efficiently planned by industrial production planning, scheduling, and control techniques. Standards of productivity are no less important than standards of consumption.

6.5.1.4 Planning of Distribution. Stocking and stockpiling beyond the actual needs of an operation tend to cause shortages that affect other commands and operations. Usage data and planning factors are extremely helpful in determining the maximum effective stock and stockpiling in operational commands. Efficient use of available transportation through effective traffic control will prevent bottlenecks that impair operational efficiency.

6.5.2 Logistic Discipline in Consumption. Logistic discipline is as important during consumption as it is in supply. Material must be respected both in terms of its value in combat effectiveness and in dollars. While maintenance and salvage are primarily concerns of execution, logistic planning must clearly emphasize and provide for both. Plans must, therefore, orient consumer personnel in the principles of logistic discipline.

CHAPTER 7

Organization for Logistic Planning

7.1 THE LOGISTICS DIVISION

The logistics division is ordinarily subdivided into sections and groups, the number of which depends upon the extent of the logistic problem, the size of the command, and the need for technical supervision.

Such general logistic functions as plans and operations, supply, medicine and dentistry, material maintenance, transportation, and construction are handled by the primary subdivisions, called sections. Secondary subdivisions, called groups, handle more specific logistic problems. Depending on the needs of a particular staff, these problems include: statistics and analysis, electronics, ordnance, aviation, and ships (which may be further subdivided into hull, machinery, and electrical categories).

The logistics division must be organized for a dual purpose. Each logistic problem must be analyzed (1) in relation to its place in the entire logistic process and (2) according to the specific technical characteristics of the material or service involved. Technical experts in the logistics division determine the specific problems arising out of the supply, maintenance, construction, and transportation in various specialized fields, such as aviation, ordnance, and electronics. They present this information to the head of the logistics division, who processes it in order to arrive at the total requirements for men, material, and services. This information, presented to the commander, enables him to test the practicability of a proposed course of action.

The organization of any logistics division is based on the following factors:

1. The size and complexity of the command

2. The mission of the command

3. The relative importance of the logistic problem

4. The extent of logistic support to be provided the commander by other commands and the support that he must supply to other commands

5. The physical accommodations and facilities which can be made available for use by the logistics division

6. The personnel available and their qualifications

7. The structure of staffs below, above, and coordinate.

Figure 7-1 shows an organization for a logistics division that the logistics officer may use as a guide in setting up his own division.

7.1.1 The Logistics Officer. The logistics officer is responsible to the commander for logistic planning, execution of logistic plans, and supervision of the planned action. On large staffs, the logistics officer on the naval staff may be assigned the title of assistant chief of staff for logistics. On staffs too small to require the establishment of a logistics division (below fleet, force, sea frontier, and commandant levels), the logistics officer may himself perform all of the duties otherwise carried out by a division.

7.1.1.1 Recommendations. During planning, the logistics officer will be called upon to provide a great amount of information of a logistic nature, gathered from numerous sources, which he transmits to the commander and staff

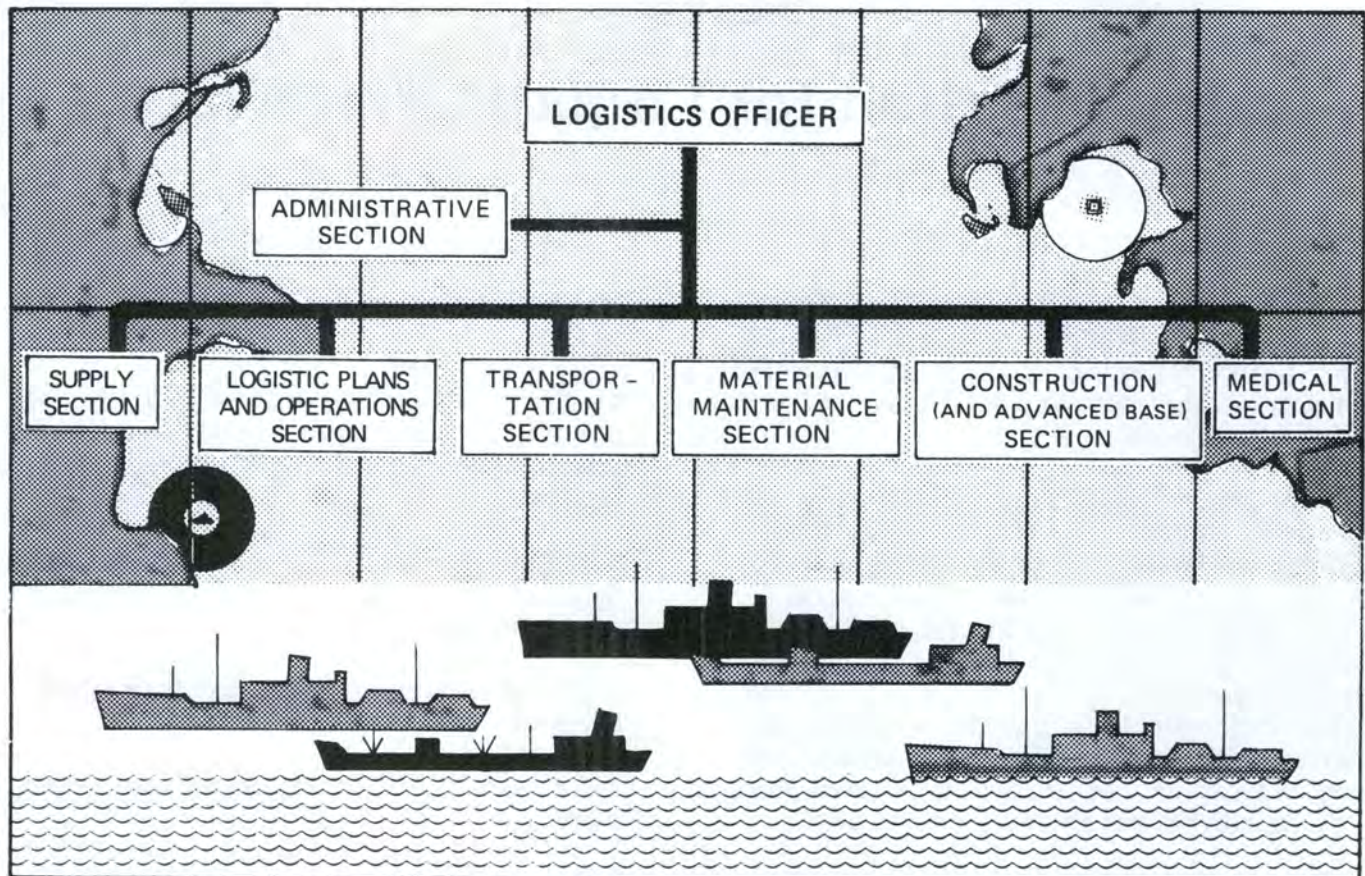


Figure 7-1. A Typical Logistics Division

members. The logistics officer must be prepared to make recommendations based on his data. Staff organization will provide channels for the transmission of his advice; the staff study and the staff estimate are the usual instruments employed.

7.1.1.2 Decisions. While major decisions are made only by the commander, the logistics planner and other staff members must make minor decisions of a procedural and technical nature during planning. In all cases, the action is taken in the commander's name and within the authority vested in the staff member by the commander.

7.1.1.3 Administrative Tasks. Prior to and during planning, the logistics officer must accomplish a number of administrative tasks:

1. Organize the logistics division
2. Maintain a running account of the current logistic situation and its estimated future for transmittal to the commander, the chief of staff, other staff divisions, and other commands
3. Conduct studies and make recommendations to the commander on policy matters

pertaining to logistics support responsibilities of the command

4. Keep informed on the logistic requirements of forces or other commands that depend upon his command for logistic support
5. Supervise and evaluate the work of the logistics division during logistic planning activities
6. Establish procedures and assign tasks to the component units of the logistics division
7. Set up security requirements for handling information and establish a system of security checks
8. Prepare logistic standing operating procedures for the command.

7.1.2 Coordination. A high degree of coordination is required within the division and within the staff. Coordination and liaison are accomplished by conferences, planning programs, policy pronouncements, and standard operating procedures. It is the logistics officer's responsibility to ensure that his division is organized for internal coordination and for efficient assistance to the commander and his other staff divisions.

7.2 PLANNING FUNCTIONS

The logistics division plans for operations, for continuous maintenance of the command, and for specific operations. Naturally, planning for continuous maintenance will greatly affect operational planning. In practice, the two are difficult to separate; indeed, they need not be consciously separated, so long as provisions are made for both.

In order to do an effective job of logistic planning, all logistic planning officers must be thoroughly familiar with Operational Planning, Part I of this volume.

7.2.1 Continuous Maintenance. Broad planning duties associated with continuous maintenance of the command consist of planning for the establishment and supervision of service and support facilities, including one or all of the following:

1. Supervision over storage and distribution of supplies, including munitions and equipment; planning and control of air and surface transportation; shore construction; and the operation and maintenance of supply, evacuation, and repair establishments
2. Providing advance information in order to coordinate logistic demands of the command with those of supporting activities and other commands
3. Allocating to subordinate or type commanders the responsibility for providing certain types of supplies and services to specific echelons or to the forces as a whole
4. Supervising the execution of policies on the material condition of the command, including setting standards of material upkeep, inspections to ensure adherence to standards, and planning of schedules for any overhaul activity that is beyond the capacity of the command's personnel.

7.2.2 Specific Operations. In planning for a specific operation, the logistics division should have at all times a clear and precise picture of the overall and logistic situations. This means that the division must be cognizant of the individual and aggregate ability of all resources within the command in order to provide current and future logistic support to operating forces.

The logistics division must participate actively in staff planning. This implies that logistic planning is accomplished simultaneously with the staff strategic and tactical planning and concurrently with logistic planning at levels immediately above, below, and coordinate. In

brief, the division should be ever ready to supervise the preparation of logistic plans and to amend them when necessary.

Specific operational planning tasks of the logistics division are as follows:

1. Supply information and advice to the commander and other staff divisions on the logistic aspects of the situation and proposed operations
2. Determine logistic requirements and availabilities for a planned operation
3. Devise measures necessary to provide logistic support for a planned operation.

7.2.3 Sources of Planning Information. As a science, logistics involves the gathering, analysis, and evaluation of information from a variety of sources. These sources may include the commander, other staff officers and divisions, and other commands. Types of source information include general reference material (maps, charts, handbooks, manuals, published planning factors, usage data, etc); policy and procedural instructions (doctrine, standard operating procedures, technical notices, and bulletins); performance and status reports of subordinate commands; and operational planning information (plans, directives, studies, memoranda, and usage data).

The means of analyzing source material to determine its significance in current logistic planning problems include staff studies, evaluated summaries, and charts and graphs produced from statistical information.

7.3 TYPES OF PLANS AND ORDERS

The types of plans and orders are described in Chapter 4. The method of incorporating logistic plans, instructions, and information into overall plans is presented in Chapter 10. The value of overall plans to the logistics planner is described in this paragraph, so that he may

understand their effect upon his planning activity.

7.3.1 Outline Plan. The main value of an outline plan to the logistics planner is that it gives him essential information at an early date in order that he may take action necessary to ensure timely logistic support when needed.

7.3.2 Campaign Plan. A campaign plan should be studied by the logistics planner for two reasons:

1. It provides a basis for determination of requirements, which are broadly stated in terms of shipping tonnage, and critical supply and equipment items, such as POL, ammunition, landing craft, and so forth.
2. It provides for initiation of procurement and distribution of the logistic means required to support future operations.

7.3.3 Operation Plans and Operation Orders. Operation plans and operation orders are prepared in every echelon from area down to unit level. For the logistics planner, the logistic plan for an operation at any level must provide:

1. Information to the supported forces as to the logistic support to be provided them
2. The general plan for forces supplying logistic support of the operation, including information on the role of bases and provision for logistic reserves and flexibility
3. General coordinating measures to ensure that all subordinate commanders understand their logistic responsibilities; logistic responsibilities of other subordinate commanders, including provision for mutual support; and provision for logistic support to or by other commands
4. Specific plans for each functional element, including supply, maintenance, transportation, and so forth.

Depending on the complexity of the operation, plans relating to functional elements may include such topics as policy, responsibilities, specific tasks, availabilities, and procedures for obtaining delivery of supplies and services.

7.3.4 Base Development Planning. Planning for base development is a highly detailed, technical, and time-consuming process. It consists of three stages: the base development study, the base development planning directive, and the base development plan. The subject is treated in this publication only as it is related to the general principles and doctrines of the logistic planning process.

The base development study is a comprehensive presentation of physical details and recommendations as to the site that will:

1. Best support planned naval operations
2. Permit most economical and quickest installation of facilities consonant with the assigned mission

3. Afford the greatest protection against interruption of service due to enemy attack.

The base development planning directive is issued when a decision has been made to undertake detailed planning for a large operation. It includes tentative dates and preliminary estimates upon which specific planning data are developed for inclusion in the base development plan.

The base development plan is derived from the area general operational or strategic plan. It is the result of consolidation of recommendations by area Army, Navy, Air Force, Joint, and Allied commands during concurrent planning. Its purpose is to inform all elements of the intent of the area commander in the construction and operation of the base. The base development plan is usually compiled, published, and issued by the area commander as an appendix to the logistic annex of the operation plan. In order to promote concurrent planning along all echelons, the base development plan may be issued in parts.

CHAPTER 8

Preliminary Logistic Planning

8.1 FUNCTIONS OF PRELIMINARY PLANNING

Preliminary logistic planning serves two purposes: it gives the commander an awareness of all the logistic aspects of the situation required for his decision as to the best course of action and it forms the basis for preparation of the logistic plan. In the process of aiding the commander in making his choice of the best course of action, the logistics planner will gather, analyze, and evaluate great quantities of information. After the decision has been made, he will use this information (as far as it is applicable) in developing the plan for logistic support of the chosen course of action. The sources of the various kinds of information utilized during preliminary logistic planning are shown in Figure 8-1.

8.2 DEFINITIONS OF LOGISTIC PLANNING TERMS

Logistics planners must understand and correctly employ logistic planning terms. The following definitions of basic logistic planning terms are standard.

8.2.1 Preliminary Logistic Planning. Preliminary logistic planning is the phase of the logistic planning cycle that extends from the receipt of a mission to arrival at a decision.

8.2.2 Logistic Estimate of the Situation. The logistic estimate of the situation is an appraisal, resulting from an orderly examination of the logistic factors influencing contemplated courses of action, that provides conclusions concerning the degree and manner of that influence. The logistic estimate of the situation, which is a supporting estimate, runs concurrently with the commander's estimate of

the situation during the preliminary planning phase. Annex B outlines a format that may serve as a guide for estimating the logistic implications of the situation.

Note

Logistic estimate, staff estimate, estimate, initial staff estimate, and detailed staff estimate are terms sometimes used as an informal reference to the logistics estimate of the situation or to a segment thereof.

8.2.3 Logistic Information Summary. The logistic information summary is a summary of information, made at any point in the planning process, that is used to brief the commander or other staff members. It contains data extracted from staff studies, the logistic estimate of the situation, fleet and force regulations, and so forth. For example, the logistics division might calculate the fuel requirements for the operation, based on the number and types of forces to be supported. After the logistics officer balances these requirements against the availability of support forces, he will reach certain conclusions concerning the capability of the logistic forces to support the combat forces under various conditions: distance from the fuel resupply base, tempo and type of operations, and so on. A summary of such information, combined with the informational summaries of other staff divisions, would contain information required for the commander and his staff to determine strengths and weaknesses, the effect of enemy capabilities on logistic support, proposed courses of action, and other operational factors.

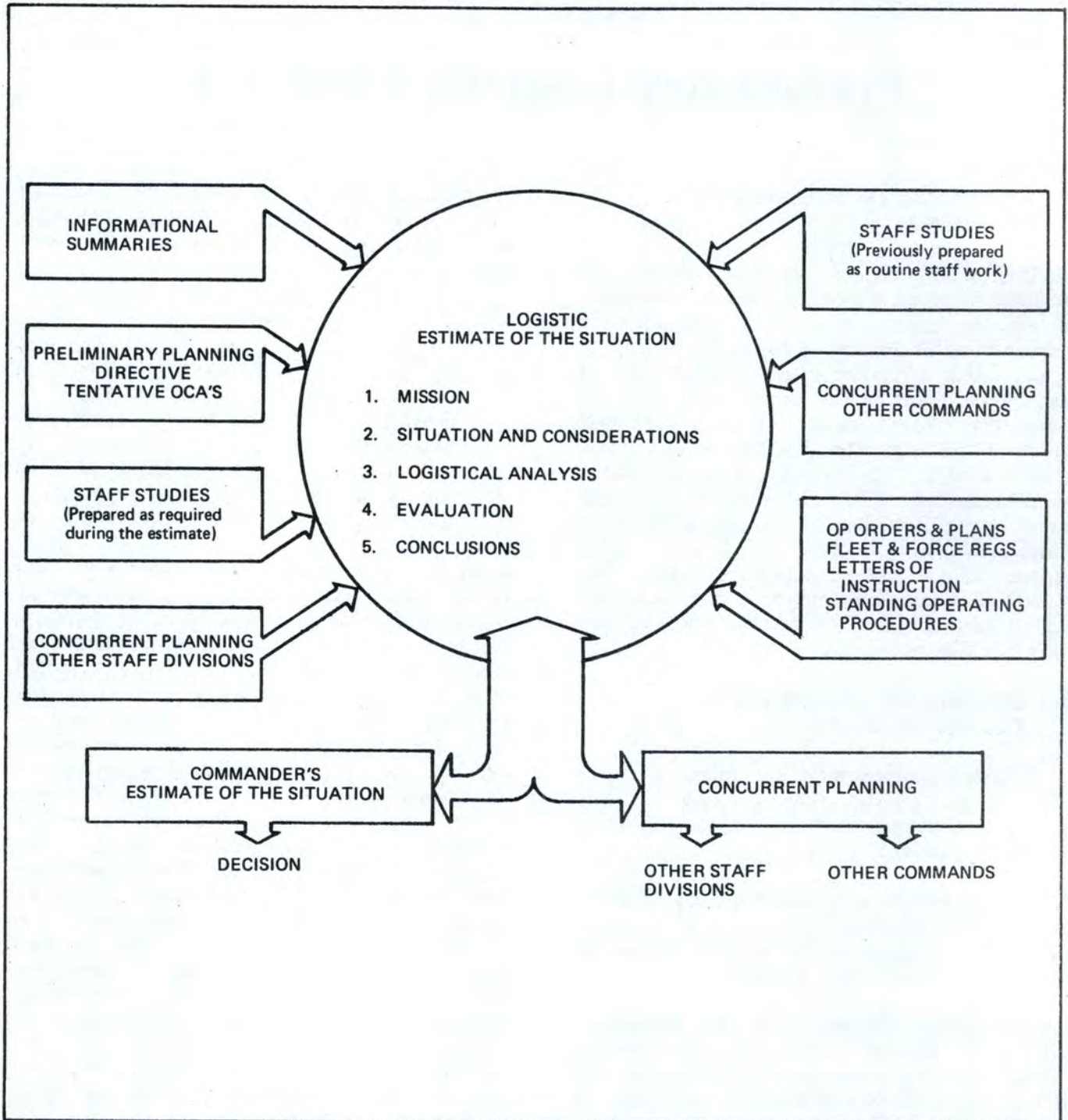


Figure 8-1. Integration of Planning and Information During the "Logistic Estimate of the Situation"

8.2.4 Preliminary Planning Directive. The preliminary planning directive is an internal staff document or briefing that announces to the staff the commander's early estimate of the operations required to accomplish his mission. It includes tentative own courses of action (OCAs) and possibly brief tactical concepts to carry out the tentative courses of action. (This directive will be preceded by preliminary exchanges of information within the staff, as described in paragraph 8.3.) The preliminary planning directive serves as a point of departure for the logistics division to expand the logistic estimate of the situation in order to examine in detail the logistic implications of each tentative course of action. This directive may be either oral or in writing.

8.2.5 Planning Directive. The planning directive is an internal staff document or briefing that announces to the staff the commander's decision (selected course of action). It includes any assumptions upon which the decision is based, his broad concept of the operation, a list of the component operations thus far developed, and any further instructions pertinent to the development of the commander's plan. The planning directive shows in broad terms how the commander expects to accomplish his mission and serves as the point of departure for the development of the logistic plan. Depending upon the scope and nature of the operation, this directive may be either oral or in writing.

8.2.6 Development of the Logistic Plan. The development of the logistic plan phase of the logistic planning cycle runs concurrently with the commander's development of the plan phase, from the decision to the preparation of the logistic plans and annexes that support the commander's directive. Paragraph 9.2 outlines a format that may serve as a guide for detailed development of the logistic plan.

8.2.7 Staff Studies. Staff studies are research projects undertaken to develop information on a specific subject or to assist in solving a specific problem. They are normally prepared

as routine administrative staff work in order to provide a reservoir of data to support current and future operations. For example, periodic studies of port capacity in an area may be used in connection with determining optimum use of available shipping or for planning the wartime expansion of port facilities. Staff studies may also be prepared during the planning process. For example, a study could be prepared to decide whether to use one large or several smaller hospitals in an area of operations.

8.2.8 Logistic Planning Tools. Logistic planning tools are planning factors, statistical facts, and usage data employed by the logistic planner during detailed analyses and studies. Planning factors are selected values used to project, under specified conditions, the future requirements or capabilities of a given organizational unit in terms of men, material, or services. The ultimate purpose of planning factors is to establish, with small effort and good probability, the quantitative relationships between requirements and capabilities. Statistical facts pertain to such data as ship dimensions, capacities, sailing distances, and so forth. Usage data are the rates of production or consumption of a commodity by a specific unit under certain known conditions. Amplifying information is contained in paragraph B.1.

8.3 GENERAL LOGISTIC PLANNING PROCEDURE

The commander prepares his estimate of the situation, with the assistance of his staff, based on the mission he has received or derived. The logistics planner concurrently prepares the logistic estimate of the situation as a means of appraising all the logistic aspects of factors relevant to the commander's mission. Figure 8-2 illustrates this phase of the planning.

The scope and content of preliminary planning is flexible and will vary with the nature of the mission, the general situation, and the size of the staff involved. It may be accomplished by the commander with the assistance of a few key staff members, or it

may require detailed study and research, with formal documentation and presentation, before the commander can arrive at his decision.

Successful completion of the preliminary planning phase requires an exchange of information between the commander and his staff and among staff members. The commander must first advise his staff of the assigned mission, his early analysis of the mission, and a summary of the situation. The latter includes basic information pertinent to the logistics division, such as the forces to be supported, specific logistic operations assigned by higher authority, available logistic forces assigned by higher authority, available logistic facilities, general area of operations, commands providing logistic support, and the target date of the contemplated operation.

With this knowledge, the logistics planner will be able immediately to advise the commander and other staff divisions of the obvious logistic implications that bear on the mission and the general situation. Logistics planners must then develop, accumulate, and analyze additional information and data from staff studies, the specialized knowledge of subordinates, and other staff divisions and through visits and correspondence with other headquarters and activities. They next collect pertinent portions of this information to form the logistic information summary, which provides the commander and other staff members with an analysis of the logistic implications of the situation, area of operations, and the relative support power of the opposed forces. This summary and the informational summaries of other staff divisions contain information that command planners require for a determination of strengths and weaknesses, the effects of enemy capabilities, and evaluation of other operational factors. All key staff officers actively participate in these determinations, which are coordinated by the operations officer.

When this work is complete, there will be enough information assembled and enough staff

work completed to permit the commander, with the assistance of key staff officers, to formulate his tentative courses of action and possibly develop brief concepts of operations necessary to accomplish his mission. He will announce them to the staff orally or in writing in his preliminary planning directive. The logistics planner uses the preliminary planning directive as the point of departure to expand the logistic estimate of the situation and examine the logistic implications of each tentative course of action. The sources of data he uses for the estimate are illustrated in Figure 8-1.

The logistic estimate of the situation contains detailed analyses of all the factors involved in order to support conclusions on the logistic implications of each tentative course of action and recommend that course of action which is most suitable, feasible, and acceptable from the logistic aspect. The logistic estimate and the estimates prepared by other staff divisions provide sufficient data to enable the commander to select the course of action that will best accomplish his mission.

The commander's estimate of the situation and the individual staff estimates are continuous efforts during the preliminary planning phase. Successful completion necessarily involves mutual progress through an exchange of data by informal means, such as meetings or conferences, or through informational summaries, which may be written or oral. This process is illustrated in Figure 8-2.

The selected course of action announced in the commander's decision is further refined in detail during the development of the plan phase of the planning process (see Chapter 9).

8.4 THE LOGISTIC ESTIMATE OF THE SITUATION

In the logistic estimate of the situation, the influence of some logistic factors may be of such importance on certain courses of action as to cause their abandonment in favor of others. In practice, some matters will be studied and

evaluated more exhaustively than others, with the level and the objective of planning governing the extent of the coverage. For example, the logistics planner may be interested in such immediate economic characteristics of the scene of operations as the quality and quantity of available construction materials; the logistics officer planning for area maintenance may devote his studies to such general economic problems as the industrial capacity of the area.

The degree to which the commander's estimate of the situation reflects the detail contained in the logistic estimate will also vary extensively with the level and objective of the planning. For example, a mobile logistic support group commander's estimate may include much of the material generated by his logistics division. As an operational commander, his estimate and directive are developed along the lines discussed in Chapters 1 through 4, but his courses of action and his decisions must be established in analyses that consider courses of action by the commanders of the supported forces and the enemy capabilities. The logistical analysis (Step 3) in the logistic estimate will have included the logistic implications of different possible courses of action of supported force commanders.

Like the commander's estimate, the logistic estimate is primarily a thinking process that may be used in relatively simple situations or in very complex operations. It may or may not be reduced to writing, since its scope is flexible and completely responsive to any situation - the more complex the operation, the more complete the scope and the more formal the discussions required in each step. Like the estimates of other staff divisions, the logistic estimate is not a one-time step in the operational planning process. It requires constant review throughout the planning process until the final directives are produced.

8.4.1 Step 1 — Mission. The logistics planner must understand and analyze the commander's mission in the light of its logistic requirements, if the plan for logistic support is to be valid in

assisting the commander to attain his objective. The commander's analysis of his mission (discussed in paragraph 2.2.1) normally indicates the general areas where logistic planning will be necessary. If the commander, in his preliminary planning directive, includes tentative courses of action in addition to the analysis of the mission, the logistics planner has definite guidelines for his logistic estimate. If the commander is unable to indicate tentative courses of action from the information available, the planner will gather data on the logistic aspects of the various considerations affecting possible courses of action and present them to the commander, who can then establish tentative courses of action and prepare the preliminary planning directive.

8.4.2 Step 2 — Situation and Considerations. In his considerations affecting possible courses of action, the logistics planner must evaluate (1) all aspects of the situation facing his commander that are predominantly logistic in nature and (2) those that are not logistic in nature, but which may have some implications on the logistic aspects of the situation.

8.4.2.1 Own Forces. Establish the present disposition of own forces. A situation map or chart display is the most effective means of presenting this information. Include phases of the planned operation and attachments and detachments.

8.4.2.2 Enemy. Enemy capabilities are determined by the intelligence division or the commander. The order of battle of the enemy forces, if displayed on a situation map, can be kept current more easily during the planning. List capabilities that might affect logistic support and include the degree to which each capability affects support. Also consider the enemy's capability to conduct sabotage, raids, etc., which might influence logistic support.

8.4.2.3 Characteristics of the Area. Intimate and detailed knowledge of the physical scene is essential in logistic planning. Planning in other fields is often adaptable to more than one area of operations, but this is frequently

not true in logistic planning. The intelligence estimate will include some of the material required in this section and need only be referenced, but specialized logistic staff studies may also be required.

8.4.2.3.1 General Factors. General factors cover the broad fields of economic, political, and psychological conditions; many have to be examined for logistic implications within any given area of operations.

a. Political and Psychological. The general political and psychological conditions in the area of operations (discussed in paragraph 2.2.2.2.1) may concern the logistics planner. Although these conditions are, from the logistic standpoint, subsidiary to the economic factors, some factors, such as political tendencies, the friendliness or hostility of the inhabitants, and living standards, may have a bearing on the logistic estimate of the situation. If, for example, a port is to be attacked, logistics planners should study intelligence relating to the probable extent to which enemy and indigenous personnel might scuttle ships and sabotage harbor installations. On the surface, such information would appear to be of interest principally to intelligence and psychological warfare officers. But in determining requirements for equipment and personnel in possible salvage operations, thorough knowledge of the political and psychological factors is indispensable to the logistics planner. The planner should understand the morale level of the civilian labor element, its attitude toward the invading forces, degree of trustworthiness, and efficiency.

b. Economic. The economic potential and conditions in the general area of operations will concern the logistics planner. Economic factors are very important in strategic planning; they may require only superficial coverage in planning at the fleet or force level. Economic factors most likely to require consideration are natural resources and the extent to which they have been, or can be, developed; industrial capacity; principal products, both agricultural and industrial; availability of power and

transport; labor supply, including the proportion and types of skilled labor; financial stability; financial and trade organizations and relations; principal exports, to the extent that they indicate types and quantities of materials available in excess of indigenous requirements; amount and character of imports, since they reflect indigenous needs which must be supplied from outside the area; and other factors that indicate indigenous capability for supporting additional military forces which are to be based in, or supported from, the area under consideration. The following paragraphs discuss typical examples of specific matters which might be considered under the more important economic factors.

(1) Food. The burden of logistic support may be eased if some of the food requirements of operating forces can be satisfied from the area of operations. However, in planning, the use of local food supply must be weighed against the disadvantage of the time and effort which may be required to process it. The kinds of crops in the area and their quantity and availability should be ascertained and studied. Such factors as nutritional value and acceptability by forces are also of concern. With regard to food, events may so develop that an aspect, considered to be of minor importance before an operation, may suddenly assume major proportions during the operation. This may occur, for example, when a population is deprived of its normal source of food supply as a result of the operation. The occupying force may then be called upon to feed the population.

(2) Labor. If the local labor supply is to be drawn upon for such tasks as unloading and construction, careful study must be made of degree of skill, customs, habits, and organization. Any use of local labor may entail special security measures and will require the logistics planner to work with, and be advised by, other divisions of the staff.

(3) Products. Logistics support of forces in an area of operations may be predicated to some extent on the availability of petroleum

from a supplier within the area. Nevertheless, amplifying plans must be drawn to provide for alternate means of petroleum supply. These means will be employed in case of a strain in relations with the local supplier or a disruption of the flow of petroleum. Staff studies on products from the area of operations must be timely and include the adaptability and accessibility of the items and seasonal influences. The use of area products may create a new series of logistic problems, such as storage, distribution, and processing. The planner must then calculate whether, in the long run, it would be best not to rely on local products. In addition, the planner may determine that, because of critical local shortages of some or all of the required items, adverse psychological and political effects would result from their further depletion by military use.

(4) Finance. Long-range planners are more concerned with the financial stability of an area than are short-range planners. Yet all logistic planners share broad responsibilities for the administrative management of finances of their own forces and for financial policies in areas under our control.

8.4.2.3.2 Fixed Factors. The intelligence estimate will include information on fixed factors and need only be referenced by the logistics planner. However, the logistics planner may have to extend the considerations discussed in paragraph 2.2.2.2.2 in certain areas and change the order of consideration. The following paragraphs discuss areas where the planner may need to extend consideration.

a. Hydrography. Tides, currents, beaches, and mineable waters affect requirements for nets, salvage equipment and crews, piers, wharves, and lighterage. Availability of anchorage areas for resupply operations may affect decisions on whether mobile support groups or fixed bases will be used. When the hydrographic characteristics of an area restrict the use of certain craft, adjustments may be required along the entire logistic line. Peculiarities in hydrography and terrain,

encountered in the past, have resulted in many innovations in equipment and support methods. Flexibility, which includes the ability to adapt to varying circumstances of terrain and hydrography, is a basic requirement of the logistic plan.

b. Terrain. Terrain affects selection of types of material and means of storage, maintenance, and transportation. In amphibious operations, the feasibility of transferring supplies to operating units ashore depends on the characteristics of beaches, exits, and inland areas. Beach capacity, an estimate of the amount of cargo which may be unloaded per day on a strip of shore from landing craft, ships, or lighters, must be computed on the basis of shore terrain characteristics in relation to sea, tides, and weather. Clearance capacity, an estimate of the amount of cargo which may be transported inland per day from a beach or port over available means of inland transportation, must also be computed after considering local terrain.

c. Weather. Weather conditions and the season of the year greatly influence types of logistic support items and the means of their delivery. This problem must be studied from the standpoint of supply routes into and within the area of operations as well as in the particular geographic area. Types of food, clothing, and housing required will depend upon the climate. Special equipment, such as defrosting gear, mosquito netting, special lubricants, and packing, must be provided if required.

Weather has an appreciable effect on planning for replenishment at sea. Replenishment areas must be chosen with accurate knowledge of the general weather that will prevail in the area during scheduled replenishment periods. Provision must be made for replenishing ships at bases, if climatic conditions will make replenishing at sea infeasible (e.g., when waters contain heavy ice floes or during a season of continuous storms).

d. Lines of Communication. Air, sea, and land transportation routes and facilities largely determine levels of supply buildup. The vulnerability of these routes and facilities from the zone of the interior and from advanced bases must be weighed. In addition, the location of landlines in relation to ports will affect the planning for debarkation and unloading activities.

e. Health and Sanitation. Apart from their relation to the general economy of a country, health and sanitary conditions are subjects for special study by the logistics planner, for this knowledge enables him to make plans for disease and epidemic control, immunization, water and food purification, use of local produce, and other medical aspects of logistics.

f. Facilities. Include the locations and missions of supporting installations in appendixes. Note differences in their support potential, if any, for each proposed course of action.

8.4.2.4 Assumptions. Review the pertinent points on military assumptions discussed in paragraph 2.2.2.2.5.c. In general, the logistics planner is governed by the same considerations in formulating assumptions that have logistic implications. However, since he considers factors in greater detail and at a lower level, he may have more assumptions upon which to base his planning.

8.4.2.5 Strengths to be Supported. Use of a tabular listing, by places or periods, of all forces that must be supported will enable the logistics planner to visualize the total requirements for logistic support. Include status of readiness and special needs in the listing.

8.4.2.6 Special Features. There may be areas that are not specifically covered in this step, which the planner should discuss. Training and replacement of logistic support personnel and the material condition of logistic support ships and equipment are areas that may have a very important bearing on the ability of a commander to provide logistic support.

8.4.3 Step 3 — Logistical Analysis. The commander included tentative courses of action in his preliminary planning directive; the logistics planner must include an analysis of each tentative course of action in his discussions under each heading in the paragraphs which follow. He must be able to determine the ability of his force to support the requirements of the proposed operation, i.e., its logistic feasibility. Ability to support logistically, for a longer time, a force superior to the enemy, is his primary consideration. In the logistical analysis, the planner considers such factors as the length and vulnerability of supply lines; the number and dispersion of bases, their facilities, and interior lines; the availability of supplies from local and area stockpiles and from continental sources; the outloading of the ships and aircraft, readying them for the operation; and the embarkation or enplaning of the forces and equipment involved. Inclusion of major installations on the situation map suggested earlier is also helpful. Examine each category in terms of requirements, availability, and limiting features.

8.4.3.1 Supply Aspects. The logistics planner must determine for each course of action (1) the amount required to bring units of the force up to desired levels and (2) the levels to be maintained during the phases of the operation. Include all categories of naval supplies: dry and fresh provisions, water, ammunition, armament, armament repair parts, fuels, lubricants, general stores, ship's store stock, clothing (including special clothing), small stores, shipboard repair parts, aeronautical material, complete aircraft, medical stores, dental stores, and special equipment. When considering the availability of supplies, note special sources, such as captured enemy material, material recovered by salvage and repair, and material from local resources.

8.4.3.2 Maintenance and Modification. The service required will vary extensively for each type of operation. The logistics planner must establish maintenance requirements as follows:

1. Keep the force in condition to carry out its mission
2. Keep the facilities (real property) in such a condition that they may be continuously utilized
3. Retain material in or restore material to a serviceable condition.

Requirements include inspection, testing, servicing, repair, rebuilding, salvage, and reclamation. Extensive modification will not be undertaken by field agencies except to meet unforeseen emergencies, unless specifically authorized by the responsible service or the Joint Chiefs of Staff.

8.4.3.3 Medical Services. The logistics planner should estimate casualties on the basis of any statistical information available, the opposition expected, and any special weapons which might be employed by own or enemy forces. Weigh also the health and sanitation conditions discussed in Step 2. In establishing requirements and availabilities for evacuation and medical treatment, include methods and facilities.

8.4.3.4 Transportation. The determination of transportation requirements may include detailed computations on tonnage, means of movement to mounting areas and objective areas, and movements within the areas. Routes and their capacities and capabilities are very important in estimating the availability of transportation to supported forces.

8.4.3.5 Base Development. The requirements for base construction (or augmentation of existing facilities) will vary considerably with the capabilities of existing facilities, the area of operations, the types of operation, and the availability of mobile logistic support. Make every effort to utilize mobile support fully before augmenting logistic facilities with fixed base development. Weigh carefully the cost and vulnerability aspects of base development

against the effort necessary to obtain adequate mobile support.

8.4.3.6 Personnel. Note personnel requirements by phases of the operation for both combat and logistic forces; lay particular stress on critical categories of personnel. Estimate requirements for replacement personnel on the basis of expected attrition rates and the evacuation policy. Consider other requirements, such as military police and recreation and welfare services. When considering availability of personnel, note the availability of indigenous labor, since this source can reduce procurement from normal sources.

8.4.3.7 Foreign Military Assistance. The determination of foreign military assistance requirements includes aid to allies within the area of operations and the availability of reciprocal military assistance programs.

8.4.3.8 Finance, Legal, Civil Affairs, and Miscellaneous. The requirements under these headings will vary broadly with the extent and scope of operations. (See Appendix B, Figure B-5, for various items to be considered.)

8.4.4 Step 4 — Evaluation. The logistical analysis (Step 3) gives the logistics planner numerical data that he can use as a basis for evaluating the capability of his force to provide the required support. Certain controlling limiting features should be evident in regard to the basic mission and, to some extent, in connection with each proposed course of action. The planner should include in his evaluation the effects of the characteristics discussed in Step 2, if they were not used in establishing limitations during the logistical analysis (Step 3).

The logistics planner should tabulate the advantages and disadvantages of each course of action; he will then have before him a basis for the discussion of that course of action from the logistic point of view. He must assess the ability for sustained logistic support with constant reference to the enemy capability to interfere with logistic support plans. An existing enemy

capability to disrupt logistic support requires a plan to offset the capability. Of course, establishing such a plan is outside the scope of the logistic estimate of the situation, but the logistics planner must ensure that the commander is aware of the need to offset the enemy capability, if the proposed course of action is to be supported logistically.

8.4.5 Step 5 — Conclusions. The evaluation (Step 4) should provide the basis for a determination of logistic feasibility. The ultimate determination of feasibility will be made by the commander, but the evaluation of the logistics planner will provide him with the necessary factual logistic information and conclusions for his determination.

8.4.5.1 Mission Support. The logistics planner should state his opinion as to whether or not his commander's mission can be supported. Summarize (1) the important logistic implications of each proposed course of action and (2) reasons why the basic mission or any proposed course of action cannot be supported.

8.4.5.2 Other Features. List major logistic features, other than those listed above, that should be brought to the commander's attention. Include positive recommendations for action to correct deficiencies.

8.4.5.3 Alternatives. There may be alternative possibilities for logistic support for each proposed course of action. The logistics planner will have considered these possibilities in his evaluation in Step 4 and should concisely state the alternative that appears to be best for each course of action. In some missions, as in one requiring the provision of logistic support, the commander may have a predetermined course of action in the wording of his assigned task and purpose. The planner's discussions in the logistical analysis (Step 3) and evaluation (Step 4) will be concerned only with this one course of action, but if alternative ways for providing the logistic support become evident, he should state the alternatives concisely at this time.

The evaluation (Step 4) may also indicate possible alternatives to the proposed courses of action that may be better than the commander's original proposals. They may be of sufficient merit to be suggested to the commander before he establishes the retained courses of action for his estimate.

8.4.5.4 Limitations. Outline unavoidable logistic limitations, deficiencies, and their implications. Restate assumptions made earlier; they must be pointed out specifically to the commander.

8.5 THE COMMANDER'S ESTIMATE OF THE SITUATION AND LOGISTIC PLANNING

Logistic planning is not an isolated task; its primary objective is to inform and advise the commander and the rest of the staff on the logistic aspects of the problem and the impact of logistic aspects on the operations necessary to accomplish the commander's mission.

Paragraph 8.4 discussed the degree to which the commander's estimate of the situation may reflect the detail of the logistic estimate of the situation. The logistics planner may also be called upon to provide information for the commander's estimate, in addition to that normally contained in the logistic estimate. For instance, he may be called upon to aid in supplying criteria on the enemy's ability to provide sustained logistic support of his forces. In this function, the planner is an invaluable assistant to the intelligence officer. In the absence of concrete intelligence, he may be able to give the commander many clues to enemy capabilities. His knowledge of data on supply requirements, manhour costs, transit time over different kinds of terrain, and so forth, can often give form and significance to unassembled intelligence. His logistic analyses may be valuable aids in assessing the strategic abilities and tactical behavior of the enemy and in giving suggestions for exploiting enemy weaknesses in such areas as vulnerable points of transportation and

shortages of critical items. The extent and reliability of available intelligence determine the scope and value of his analyses.

The logistics planner must understand the relationship between the logistic estimate of the situation and the commander's estimate of the situation so that he can contribute most to his commander's planning efforts during this phase of the planning cycle. The paragraphs that follow examine the major headings of the form of the commander's estimate of the situation (Chapter 2) and indicate areas in which the logistics planner may be called upon to assist the commander in completing his estimate.

8.5.1 Mission and Its Analysis. This step will usually be completed by the commander; he may seek advice from his logistics officer on identification of physical objectives or on significant logistic aspects or assumptions that are immediately evident. This is generally the case when the commander's objective is logistic in nature, such as the provision of logistic support or the seizure of an area to improve, or make more secure, the supply lines of communication.

8.5.2 Considerations Affecting Possible Own Courses of Action. The commander may incorporate material from Step 2 of the logistic estimate (see paragraph 8.4.2) in his estimate of the situation, in part or in its entirety, when he discusses the general situation and the characteristics of the area. When the commander is studying relative combat power, the logistics planner will have information on the characteristics of the combatant forces. Information for the logistic section of relative combat power comes from the discussion of logistic factors in Step 3. When the commander is tabulating his strength and weakness factors, the logistics planner may be able to pinpoint own logistic strengths and enemy logistic weaknesses which the commander may plan to exploit.

8.5.3 Opposing Courses of Action. When the commander is establishing enemy capabilities, he should consider capabilities that might interfere with own logistic support. When he is establishing own courses of action, he must briefly consider the concept of each course; this consideration includes the satisfaction of the requirement for logistics in addition to a preliminary test for feasibility. The logistic requirement and feasibility test for each own course of action are part of the logistic analysis, evaluation, and studies. In the analysis of opposing courses of action, the logistics planner must look for possible interactions that affect own logistic support and should suggest remedial actions in tentative concepts to his commander. He should be able to give advice on the ability of the enemy to support each of his capabilities logistically in face of own courses of action. In this section, the logistics planner may suggest alternative courses of action that have advantages from the logistic point of view.

8.5.4 Comparison of Own Courses of Action. Logistic considerations could dictate the final selection of the best course of action if one course is less expensive than the others from the standpoint of logistic support. In such a case, a further logistic analysis may be required to bring into sharper focus the relative advantages and disadvantages of the various alternatives of logistic support as a means of contributing to the final test for feasibility.

8.5.5 Decision. The commander selects the best course of action as his decision; the logistics planner must develop a logistic plan to support the operation. The planner has studied and analyzed all tentative courses of action. Should circumstances make it necessary to abandon the original course, he will generally have adequate logistic information at hand for development of a logistic plan to support an alternate course of action.

CHAPTER 9

Development of the Logistic Plan

9.1 THE DECISION EXPANDED

During the commander's estimate of the situation, the commander considered the logistic implications of the situation. He "war gamed" his tentative own courses of action and the necessary component operations in sufficient detail to allow him to select his best own course of action (his decision). The logistic implications analyzed in the logistic estimate of the situation aided him in making his decision. The development of the plan phase of the planning process will now expand the decision into a detailed plan of action.

The development of the logistic plan proceeds concurrently with the commander's development of the overall plan. Figure 9-1 illustrates this phase of planning. The commander's planning directive serves as the point of departure for the development of the logistic plan. Since at this point in the planning process, the commander has determined the broad concept of the operation, the development of the logistic plan will determine in detail the what, when, and how of the support necessary to implement the commander's decision. The studies and analyses made during the commander's estimate of the situation; pertinent fleet and force regulations; letters of instruction; SOPs, OpOrders, and OpPlans; and further concurrent planning with other staff divisions and concerned commands will form the basis and source of information for the development of the logistic plan.

9.2 STEPS IN THE PROCESS

Development of the logistic plan, like the development of the logistic estimate of the situation, is a continuous planning cycle. While the planning proceeds through logical steps, the

steps are not clear-cut entities; rather they overlap vertically and integrate horizontally with the steps in the commander's development of the overall plan. Figure 9-2 illustrates this intergration and the sources of information utilized for planning. There is no prescribed format for development of the logistic plan. Use of the following format, amended as necessary for the particular problem, will ensure that the logistic plan or annex will contain all the information necessary to support the commander's decision logistically. There are eight steps in the process:

1. Restate the decision
2. Restate the assumptions bearing on the development of the logistic plan
3. Review the logistic implications bearing on the broad concept and the decision
4. Analyze the logistic considerations in each component and friendly force operation
5. Determine logistic tasks and means
6. Classify and assign logistic tasks
7. Analyze logistic deficiencies
8. Determine requirements to provide coordination.

9.3 DEVELOPMENT OF THE LOGISTIC PLAN

This paragraph annotates the preceding list to show some of the principal considerations during the development of the logistic plan.

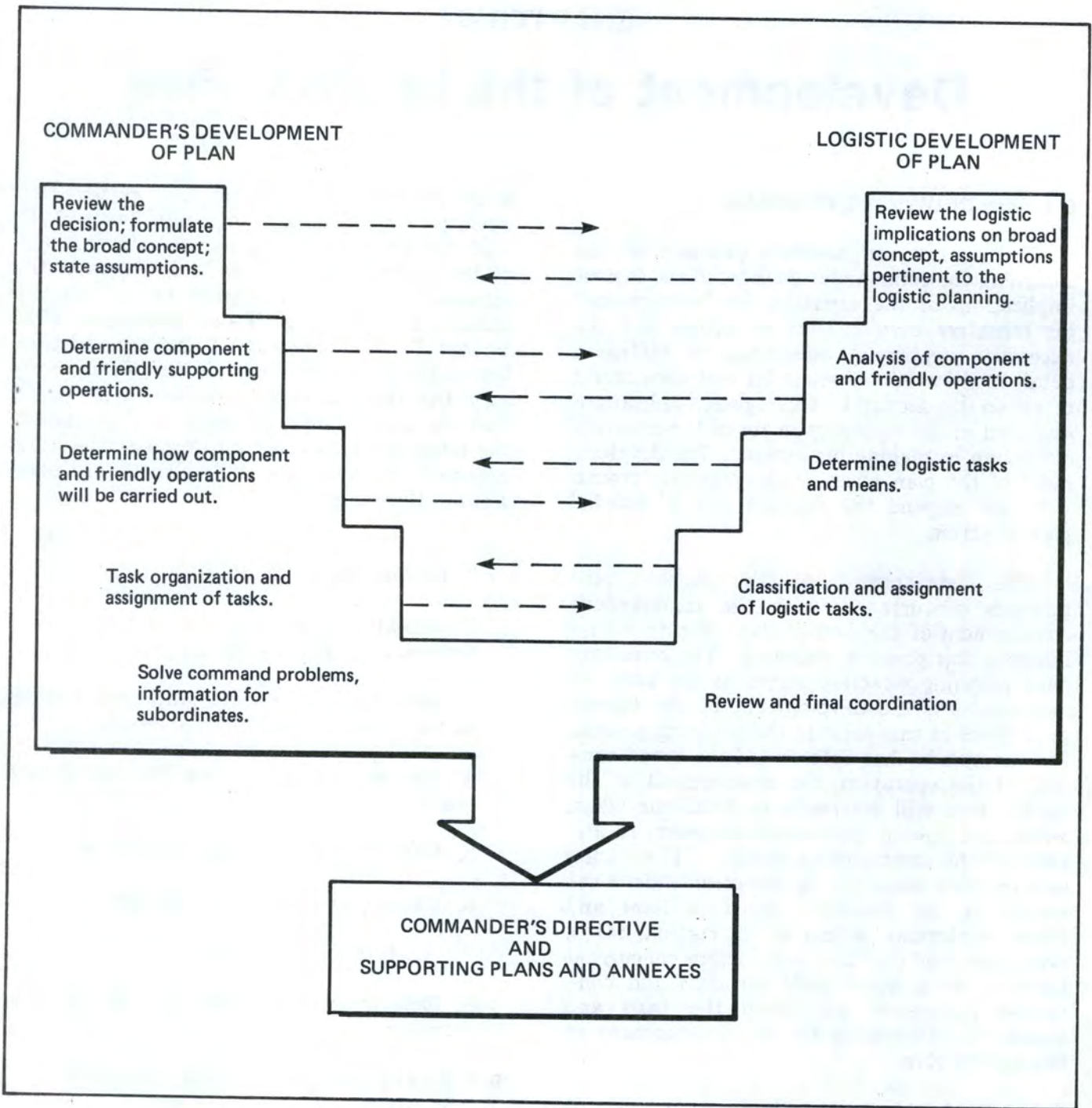


Figure 9-1. Development of the Logistic Plan

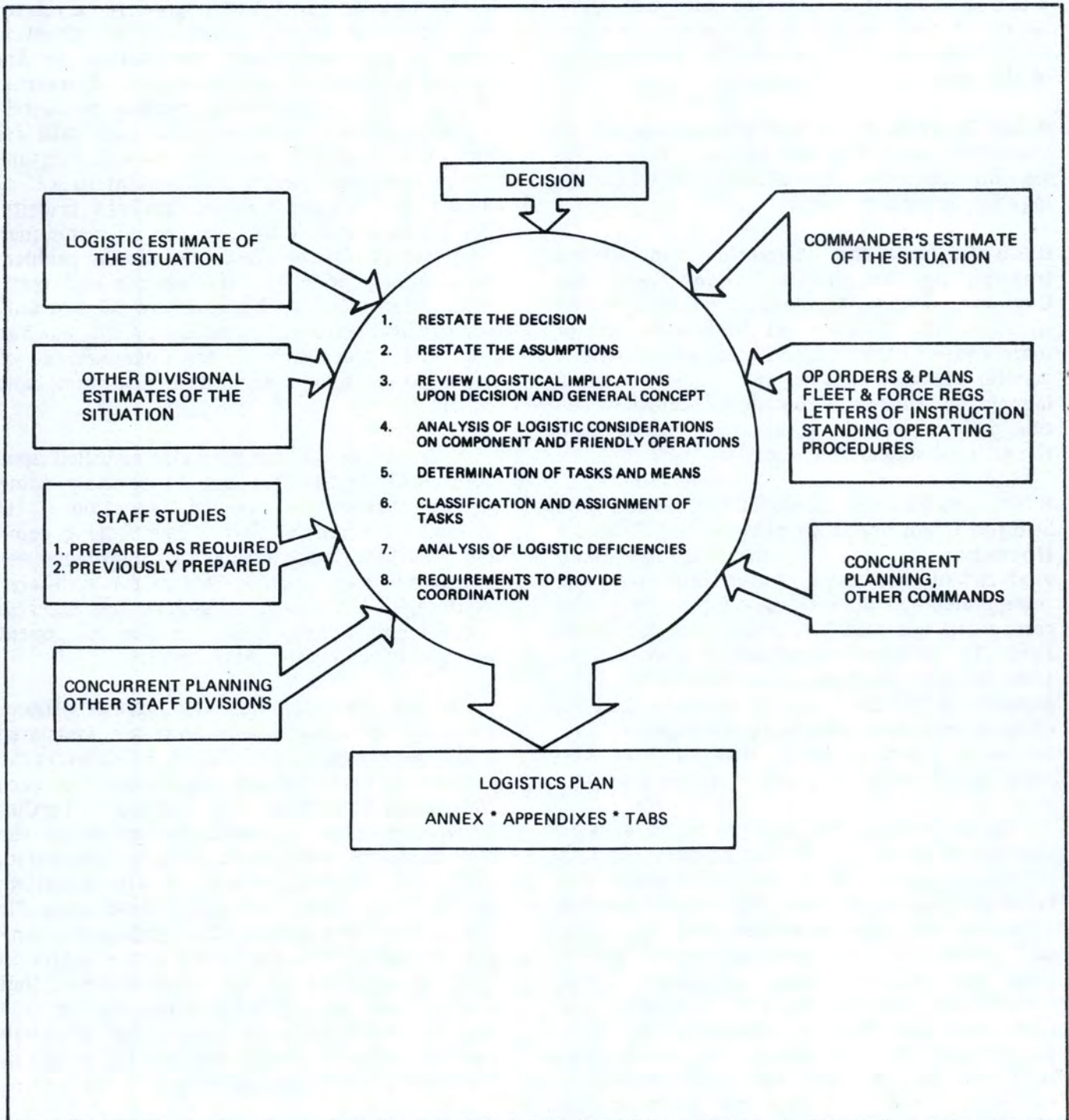


Figure 9-2. Integration of Planning and Information During the "Logistic Development of the Plan"

9.3.1 Restate the Decision. This step highlights the point of departure for the development. Restating the decision holds the objective of the planning clearly in mind.

9.3.2 Restate the Assumptions Bearing on the Development of the Logistic Plan. This step highlights the assumptions upon which the logistic plan will be based.

9.3.3 Review the Logistic Implications Bearing on the Broad Concept and the Decision. During the logistic estimate of the situation, the planner has considered one or more courses of action, each concerned with a general concept. In this step, he reviews the logistic implications of the selected course of action and the effects of the assumptions upon the selected course of action.

9.3.4 Analyze the Logistic Considerations in Each Component Operation and Friendly Operation. After the decision has been analyzed and the broad concept formulated, the commander and his staff develop in detail the component operations to implement the decision. The component operations may include some of the following: to obtain intelligence, protect own forces, move the force to the area of operations, and provide logistic support. The last item concerns the logistics planner, who must now develop the plan for logistic support.

As the commander and his staff develop component operations in detail, they develop tasks under each. From other information and from analyses made during the estimate of the situation, the logistics officer and other key staff officers will recognize component operations that concern their specialized fields. Coordination among the staff members will familiarize the logistics planner with component operations that must be supported logistically. It also provides him with an opportunity to advise on logistic matters that may affect the formulation of component operations.

Tasks in one area usually give rise to related tasks in other areas. For example, an operation may require immediate information on the approach of enemy reinforcements. Primarily, this is a task for the communication and intelligence divisions. But since the task calls for the use of especially sensitive electronic equipment, the installation and maintenance of which will require unusual (perhaps priority) procurement procedures and special techniques, the logistics planner must work on the problem concurrently with the intelligence and communication officers. He must provide not only for the procurement of this equipment, but also for the procurement and assignment of qualified personnel to install, maintain, and repair it.

The logistics officer may also be called upon to furnish logistic support to friendly commands during the planned operation. He learns, for example, that a neighboring command, which is mounting an amphibious assault, will draw upon his forces for additional lighterage. He now must include this external requirement among those for the component operations of his own commander.

It is in this step that the logistics planner analyzes the logistic considerations associated with each component operation. He consults the division heads who are responsible for each component operation to acquire further knowledge about the tasks that constitute the operation. He may have already considered, during the logistic estimate of the situation, many of the logistic aspects of these tasks. He may know, for example, that subfreezing conditions will prevail during the entire operation being planned. Two of the numerous tasks that evolve from this fact are planning for the supply and application of camouflage materials used in subfreezing conditions and the supply of lubricating oils of low viscosity.

9.3.5 Determine Logistic Tasks and Means. In this step, the logistics planner studies the analysis of logistic aspects to determine the logistic tasks that support the component

operations of the mission. In one component operation, for example, forces must be moved to the area of operations. Tasks of the logistics planner will be to procure and allocate transports, determine the shipping schedule required to accommodate landing forces, provide fuel for transport, and regulate major shipping in accordance with port facilities.

After the logistic planner determines the tasks, he analyzes the means available to accomplish the tasks. During the logistic estimate of the situation, he has verified, in a general way, that the means are available; he now makes a more detailed study of the means available in the light of the specific logistic tasks that he has developed. Just as he earlier considered what demands would be made on his forces by other commands, he now establishes the availability of any forces or facilities for his operation from other commands. He learns, for example, that the refueling situation in a neighboring command is sufficiently stable to make two additional oilers available to his command. With such an advantage, he can calculate an increase in the speed and volume of refueling that could result in increased efficiency all along the line.

At this point, the logistic planner draws up alongside schedules to establish the number of replenishment units that must be on line to furnish support for the component operations. He also prepares a master schedule, which includes all major requirements, to indicate possible conflicts in requirements that he may not have noted when he established requirements for the force as a whole during the logistics estimate.

9.3.6 Classify and Assign Logistic Tasks. In this step, the logistic planner classifies the logistic tasks involved in each component operation as follows:

1. Those tasks that must be accomplished before the operation is launched, but that need not be part of the directive

2. Those specific tasks that should be part of the directive.

Tasks in the first category are accomplished by the originating commander and his staff or by subordinate commands. The planner should make appropriate arrangements. Tasks in the second category are assigned after the task organization is developed (Step 5 in the commander's development of the plan).

The commander correlates and modifies the recommendations of his staff divisions on the nature and composition of forces to accomplish particular tasks and organizes the forces available into a task organization. Concurrently, the logistics officer determines the logistic capabilities of support forces in order to provide for their best use. This is a recurring phase of the planning cycle, for most of the information for determination of detailed logistic capabilities has been developed in previous staff studies and in the process of arriving at the best course of action.

During the commander's assignment of tasks to the major task subdivisions, he may call upon the logistics planner to make recommendations on factors that affect plans for the logistic support of the operation. If the commander's mission is one of logistic support, the recommendations of the logistics planner will be the basis for the subdivision of the support force itself, for the composition of the subdivisions must be predicated upon his analysis of the logistic considerations in all the component and friendly forces operations that must be supported.

9.3.7 Analyze Logistic Deficiencies. The logistic planner's purpose in this step is to identify logistic deficiencies and correct them or forestall their effect on the mission. Because of a constantly changing situation or the complexity of the operation itself, critical logistic deficiencies may develop or be revealed during planning. The logistics planner's detailed analysis of requirements and availabilities may

reveal deficiencies that require immediate corrective action.

When there are local deficiencies in key items or personnel, the time needed for producing them and delivering them from the source to the area of operations will vitally affect planning. Plans must be so developed that deficiencies and bottlenecks are eliminated as soon as they are recognized. Recognizing them during planning opens the way for possible corrective action before operations get under way or, at least, during an early stage of the operation. Deficiencies that are not recognized until the operation is under way are not so readily controlled. The tempo of the entire operation may well be, and usually is, regulated by the bottleneck. To overlook this fact is to invite disaster and to generate large expenditures of materials, men, and facilities which cannot be employed in the prosecution of the total war effort.

On the basis of his analysis of logistic deficiencies, the logistics officer must either take measures to correct them or recommend modifications in component operations to relieve them. Deficiencies may be forestalled by planning for logistic flexibility. Among the methods of achieving logistic flexibility are the dispersion of supplies and installations, establishment of reasonable reserves, arrangement for alternate means of transportation, and effective traffic control.

9.3.8 Determine Requirements to Provide Coordination. In this step, the logistic planner ensures that nothing is left to chance. Tasks and their efficient performance must not be treated as implied or self evident. Therefore, he reviews the general concept of the operation and makes a final determination of matters required in coordinating measures and procedures. Such matters may include:

1. General logistic responsibilities of subordinate commanders

2. Provisions for coordinated logistic support of subordinate forces
3. Responsibilities for furnishing logistic support to other commands
4. The logistic support available from other commands and the procedures for obtaining it.

Special provisions are made for the coordination of supply levels to be built up and maintained, the evacuation policy, salvage and repair policies, special POL measures, traffic or shipping control procedures, supply discipline measures, personnel rotation policies, and logistic reports and evaluation.

When this step is finished, the overall logistic plan is complete, except for reducing it to a formal document.

9.4 TEST FOR EFFECTIVENESS

Prior to documentation, the plan may be tested for effectiveness as far as possible without actual execution by examining it from various points of view. The following attributes of an effective logistic plan or annex may be used as standards. They must be rigidly and objectively applied by the logistics planner to his completed logistic plan. Some criteria on this check off list may be applied by rapid mental evaluation; others will require extended consideration, study, or mathematical computation.

The effective logistic plan:

1. Accomplishes the objective of the planning
2. Is as simple as it is consistent with the objective
3. Covers foreseeable requirements for the period of the contemplated operation
4. Utilizes all existing resources before seeking new sources

5. Provides adequate organization to ensure clearly established relationships and responsibilities

6. Permits coordination during execution by means of direct contact between all participants

7. Provides for adequate means of supervision and subsequent amendment

8. Is based on complete and accurate facts

9. Is flexible.

CHAPTER 10

Logistic Plan and Annexes**10.1 SCOPE OF THE LOGISTIC PLAN**

The scope and complexity of the operation determines the type of logistic directive to be used. Written instructions for logistic support vary in length from a single sentence or paragraph in an operation order to a voluminous logistic annex with numerous appendixes in an operation plan.

Departmental peacetime, mobilization, and code logistic plans are issued as separate documents; other naval logistic plans may or may not be issued as independent documents. They may be part of the operational directive, either an annex to the directive or, as in the case of a routine operation of a lower echelon, a paragraph of the directive. In an area or a force where the commander is other than a U.S. Navy officer, the manner of setting forth provisions for logistic support may be conditioned by the custom of his service.

10.2 COMPOSITION OF THE LOGISTIC PLAN AND ANNEXES

Paragraph 4 of the commander's directive is the administrative and logistics paragraph. When instructions on logistics can be stated briefly, paragraph 4 provides all the logistic instructions. More often the logistic plan, because of its complexity, is placed in an annex to the operational directive (see Chapter 4). In such cases, paragraph 4 contains only a statement on the location of the logistic plan and the designation of the logistic annex. For example, paragraph 4 of the operation plan could read:

4. ADMINISTRATION AND LOGISTICS.

In accordance with Annex H to this plan.

The entry in the list of annexes might read:

H — Logistic Plan
 Appendix I — Medical Plan
 Appendix II — Replenishment Plan

10.2.1 Logistic Support Force Plans. The operation plan or operation order of the commander of a logistic support force, while not strictly a logistic plan, is drawn up to accomplish a logistic mission; its annexes or the plan itself may be incorporated in the directive of the overall commander in lieu of, or in addition to, his special logistic instructions. The logistic support force commander's directive contains information that would be required in directives of the supported commanders, if his support force were not available to relieve them of the necessity of issuing detailed instructions on refueling, replenishing, and other logistic matters.

Directives of logistic support forces are generally of two types:

1. A basic plan that covers in detail the organization, procedures, and policies of the groups
2. A specific directive for each operation that modifies or supplements the basic plan and provides instructions for the execution of the particular operation.

10.3 USE OF STANDARD OPERATING PROCEDURE

A standard operating procedure (SOP) comprises a set of instructions covering those features of operations that lend themselves to a definite or standardized procedure without loss of effectiveness. Employment of SOPs helps to eliminate procedural detail from operational plans and orders. The directive can refer to the SOP to be followed; or in some cases, state that an SOP is not to be followed and that an alternate procedure is substituted.

As with any SOP, the logistics officer must take care to keep procedures out of the logistic plan that are not compatible with wartime logistic support. An SOP must not introduce rigidity in the plan, since flexibility is the primary criterion in logistic plans (see paragraph 10.6). Each logistics officer should recommend to his commander the procedures that should be promulgated as SOPs and be alert to recommend changes.

10.4 LOGISTIC INFORMATION IN RELATED DOCUMENTS

Logistic information may also be included in other paragraphs of an operation plan or in sections of related documents. Some examples are discussed below.

The execution paragraph of the directive often contains logistic instructions that relate to command relationships and responsibilities.

Annexes other than the logistic annex may contain logistic instructions peculiar to the subject of the annex. Policies and instructions for the berthing, messing, and transporting of news correspondents may appear in the public relations annex. The ammunition supply plan, an appendix to the logistic annex, may be restated in the gunfire support annex. It is very important that the logistic information and instructions in other annexes be coordinated with the matter contained in the logistic annex.

Within the Navy, fleet and force regulations contain broad basic logistic policies and general responsibilities in their personnel, supply, and material sections. Joint Logistics and Personnel Policy and Guidance, JCS Pub. 3, contains a compilation of DOD and JCS policies for joint and unified commands.

Letters of instruction are sometimes used to regulate operations over large areas and for long periods of time. They prescribe the part each major unit is to play. The logistic plan in a letter of instruction sets forth broad policies and general responsibilities and establishes basic measures for coordinating logistic effort among the services involved.

10.5 THE NAVY LOGISTIC AND PERSONNEL ANNEX

All logistic plans must answer three basic questions:

1. What materials, personnel, facilities, and services are needed?
2. Who is responsible for providing them?
3. How, when, and where will they be provided?

The answers to these questions may be contained in the logistic annex, in SOPs referred to in the logistic annex, and in appendixes to the logistic annex. The form in which the essential elements are presented may follow that for the logistic annex, as presented in Appendix B, or it may be determined by the situation and the command structure. The next nine paragraphs discuss briefly the content of the standard Navy logistic annex. The logistics planner should refer to paragraph B.3.1 and Figure B-5 for detailed instructions and format for preparing the logistic annex.

10.5.1 Introduction. Provide basic information required to implement the plan: references,

strategic concept, logistic concept, assumptions, definitions, and responsibilities.

10.5.2 Supply Aspects. Plans at lower echelons rarely give complete treatment to supply for both the fleet and shore-based forces. One type of force may be omitted or only referenced and the other given complete treatment in accordance with the operational situation. The usual breakdown of supply for the fleet or for shore-based forces is: supply levels to be established and maintained, methods of supply, and supply installations. Plans for shore-based forces also treat the supplies to accompany troops and the units responsible for supply. When only shore-based supply is treated, such as for an expeditionary force, supply instructions are usually provided in an administrative order.

10.5.3 Maintenance and Modification. These elements are treated in all annexes dealing with fleet logistics. Maintenance aspects may be covered by SOPs, but repair and salvage usually require more current instructions than are found in an SOP. Present the following information for these elements: areas of commands whose facilities will be available, description of such facilities, and procedures for obtaining their use. For treatment of salvage plans for shore-based forces, reference should be made to the appropriate service instructions.

10.5.4 Medical Services. In a large-scale operation, place most of the details of this element in a separate appendix to the logistic annex and provide only general policies in the medical paragraph. For example, the evacuation plan is normally treated in a separate appendix and the evacuation policy stated as a specific number of days in the medical paragraph of the logistic plan.

10.5.5 Transportation. Treatment of the transportation element in plans depends on the levels or types of command:

1. For ocean areas:

- (a) Water transportation — Responsibilities for transporting and routing personnel by area, type, and operational phase; responsibilities, procedures, and controls for loading ships; responsibilities, by phase, for discharging of ships and delivery of supplies to the objective area

- (b) Air transportation — Agencies for arrangement and control of air transport facilities, by service and area.

2. For the fleet: Underway replenishment and schedules.

3. For forces ashore: Loading and unloading of landing forces; boat, lighterage, and pontoon operation; evacuation of assault forces.

10.5.6 Base Development. This section appears only in plans for operations involving shore construction. When base construction is part of the operation, most of the details are included in a separate base development plan, which normally is an appendix to the logistic annex. The paragraph in the logistic annex relating to base development contains the general concept and description of the base, the functions the base is to perform, and the responsibility for base development.

10.5.7 Personnel. Large staffs usually contain separate administrative divisions. Regardless of which division formulates policies and procedures regarding personnel, these policies and procedures are contained in the logistic plan. Personnel in all categories are included: own forces, civilians, indigenous labor, prisoners of war, evacuees, and repatriates.

10.5.8 Foreign Military Assistance. Include any policies concerning aid to allied forces within the operational areas and the availability of reciprocal military assistance programs.

10.5.9 Finance, Legal, Civil Affairs, and Miscellaneous. These four sections provide

for the treatment of administrative matters of the operation. When one of these elements is of major importance, include the information and instructions pertaining to it in a separate appendix. The civil affairs section normally will include only logistic/personnel aspects of civil affairs; operational considerations are included in the civil affairs annex.

10.6 FLEXIBILITY OF LOGISTIC DOCUMENTS

Logistic plans must be made flexible, because logistic planning responsibilities extend beyond the point at which the logistic annex is integrated into the formal operation plan or operation order. Flexibility cannot be developed during the final stages of logistic planning; it can be attained only by adherence to sound logistic principles during the entire planning process. A logistic plan can be considered fully effective only if it provides the required support, when and where it is needed, regardless of changes in the situation. The logistics planner,

in completing his plan for implementation, must present the commander with a logistic plan that enables him to accomplish his mission under any foreseeable conditions with the most economical combination of manpower, material, facilities, and time.

Standard forms for Navy logistic planning have been developed only to help the commander and the logistics planner exploit professional skill and imaginative thought processes. The approach used and the final logistic plan must be based on the organization and command relationships of the supported forces and the forces providing support.

10.7 LOGISTIC SUPERVISION OF THE PLANNED ACTION

It is particularly important that the highest degree of logistic foresight be used in the supervision of the planned action. The principles set forth in Chapter 5 apply.

PART III

Communication Planning

- Chapter 11 Naval Communications**
- Chapter 12 Preliminary Communication Planning**
- Chapter 13 Development of the Communication Plan**
- Chapter 14 The Communication Plan**

CHAPTER 11

Naval Communication Planning

11.1 NAVAL COMMUNICATION PLANNING

The communication planner is concerned with (1) the effective application of available communication facilities to his particular operational situation and (2) the effect of the communication implications of the operation on the overall operation plan and its execution. He is engaged in the solution of the problems of transmitting information all over the world and to nearby ships, troop units ashore, and aircraft in a minimum of time and under conditions of rigid security, regardless of the operational situation or enemy action. His judgment must be double edged: he must select from available facilities those that best suit his purposes and, at the same time, balance communication requirements carefully, so that each requirement is satisfied to the highest possible degree without undue sacrifice of any other requirement.

The communication plan provides for the facilities through which every unit, from the highest to the most subordinate, is controlled and directed. It provides for a range of uses, from the flashing light that signals a landing craft into the beach in an amphibious operation to the worldwide radio network of the Naval Communication System that carries instructions from the Chief of Naval Operations or the fleet commander-in-chief to the commander of the operation. The communication planner, therefore, must have a complete knowledge of (1) the capabilities and limitations of the facilities of naval communication available to the operating force and (2) the organizational structure in which he fulfills his responsibilities.

A thorough review of NWP 4, Basic Operational Communications Doctrine, and

NTP 4, Naval Telecommunications Procedures, is recommended as a prelude to undertaking any communication planning. Both publications provide a thorough and current status of the various aspects of naval communications, without which the planner would operate in a vacuum of knowledge of current communication procedures, capabilities, and organization.

11.2 COMMUNICATION PLANNING PROBLEMS

A naval operation of any appreciable scope entails the direction and control of numerous ships, aircraft, and sometimes troop units, dispersed over a wide area and prepared to engage in combat. Rapid communications must be provided so that command and control can be effected quickly. Safeguards must be established to protect communications against enemy interference and interception. All communication planning, therefore, is concerned with three basic problems:

1. Flexibility in meeting command requirements
2. Operating limitations
3. Protection of communications.

It is essential that communication planners have a thorough knowledge of Operational Planning, Part I of this volume.

11.2.1 Flexibility. The commander of a naval operation creates the initial task organization of the ships, aircraft, and troop units at his disposal, primarily to attain the objectives of the operation as effectively and efficiently as possible. He must also be able to continually

redirect the maximum offensive power of his operating force to seize every favorable opportunity for attack and meet enemy threats. To this end, his force must be equal to every situation. Conversely, the overall plans for the operation must be compatible with the communications that can be provided.

An examination of the needs of a relatively small segment of a task organization demonstrates the effect of naval task organization on communications. For example, a gunfire support unit in an amphibious task force is designated as Task Unit 77.1.1. It is part of a naval gunfire support group, designated as Task Group 77.1, whose primary task is to deliver naval gunfire support for the operation. The task group is part of the attack force, designated as Task Force 77, one of the task forces comprising the amphibious task force. Effective control and coordination of the ships of Task Unit 77.1.1 will require the use of radio communications to serve two distinct purposes: (1) to exercise command and (2) to deliver effective naval gunfire support. Commander Attack Force (CTF 77) has command radio circuits connecting with the commanders of all of his subordinate task groups, including Commander Fire Support Group (CTG 77.1). CTG 77.1 makes use of his radio circuits to command his subordinate gunfire units, including Task Unit 77.1.1. Each commander of a gunfire support unit employs the same radio communications to command and control the individual ships in his unit.

The tasks assigned to various units in each of the task groups create the need for radio nets that link together those units that are engaged in the same activity or task. For instance, one gunfire support ship in a task unit is in contact with the commander of the task unit, with ships in the area assigned to gunfire support tasks from other task units, with particular shore fire control parties, and with spotting planes that guide her fire.

Planning for operational communications requires extreme care to provide flexibility for

the employment of facilities. Communications must meet the mobility of the forces employed and must never impose rigidity on operations. While radio circuits must be utilized fully, care must be taken against dissipating the communication effort by prescribing an excessive number of circuits. In every case, communications must meet the demands of the task organization and contribute to its tactical effectiveness.

11.2.2 Operating Limitations. The tactical employment of numerous elements of a task force over a large area and under varying conditions of visibility and security places special emphasis on the need for radio communications. Other means play a secondary, though important, role; their limitations as to rapidity, range, and security make extensive use of electronic means essential. The use of radio involves the communication planner in subsidiary areas of judgment: the selection of radio frequencies, the evaluation of equipment requirements, and the availability of personnel. NTP 6, SUPP 1, Recommended Frequency Band and Frequency Guide, is a useful source of information on frequency performance.

From the frequencies allocated to the operation by higher authority, the communication planner makes his selections on the basis of operational purpose; the geographic, seasonal, and solar influences on frequency performance; and the limitations of available equipment. It is at this point that he applies his knowledge of electromagnetic wave propagation and the characteristics of frequencies and equipment at his disposal.

11.2.3 Protection of Communications. The communication planner's concern for protecting the communications of the forces assigned to the operation against enemy interception and interference strongly influences all evaluations that he must make. He must examine all of the facilities, methods, and procedures that the force will employ in terms of security, the needs of communication deception, and the

electronic countermeasures (ECM) required for maximum protection.

11.2.3.1 Security. Put simply, security is the safeguarding of information. The selection of a frequency or provision for the use of any communication facility or means is contingent upon its susceptibility to interception. The communication planner, in his concern with security, must take into account all the conditions that are stipulated by higher authority or imposed by the particular demands of the operation on the employment of communication facilities and means. The security requirements and policies presented in NWP 4, in Department of the Navy Security Manual for Classified Information (OPNAVINST 5510.1), and in ACP 122, Communication Instructions Security, cover a wide range of devices and procedures. They include:

1. IFF, a system of interrogation generally used in connection with radar for identifying aircraft and ships
2. Authentication, which helps to establish the legitimacy of a transmitting station and the authenticity of a message
3. Use of codes and ciphers to provide cryptographic security
4. Imposition of radio silence when it is necessary to shield movements of the forces
5. Monitoring of communications circuits and analysis of traffic for disclosure of intelligence information.

In developing the communication plan, the planner must comply with the regulations for cryptographic transmission and physical security in the dissemination of security information. He must be aware of the limitations that they impose on the use of each separate communication facility or means.

11.2.3.2 Communication Deception. The measures and devices of communication

deception are part of the field of tactical deception. They are employed to mislead the enemy as to the intentions, strength, and nature of the forces assigned to the operation. For an understanding of this subject, see NWP 34, Navy Operational Deception. Communication deception affects the planner's evaluation of his problems: it makes demands on personnel and facilities that are needed for other purposes and, as in the case of security, imposes limitations on the use of certain facilities.

11.2.3.3 Electronic Countermeasures (ECM). Electronic countermeasures (ECM) concern the communication planner because they impose restrictions on electronic transmissions, which affect general communication planning. The purpose of ECM is to reduce the military effectiveness of enemy equipment and to disrupt enemy tactics that employ or are affected by electromagnetic radiations. Because of the large quantity of diversified equipment that ECM requires, its operational relationship with combat information center (CIC) functions, and its many different phases and aspects, ECM demands extensive examination. For this purpose, see NWP 33, Electronic Warfare.

11.3 THE COMMUNICATION PLANNING PROCESS

The communication planning process is a part of the commander's planning process and is always related to the basic operation plan, which considers communications along with logistics, intelligence, psychological warfare, and other aspects of the operation. The process embraces the communication planner's entire planning activity, from the moment the commander receives his mission to the completion of the operation. It comprises the planning assistance given the commander to aid him in his planning, assistance given the staff, the concurrent planning effort that results in the communication plan, and the planning that is required to execute the operation.

The commander thinks in terms of tactics that provide the scheme for the conduct of the

operation. He must also consider those aspects of communications, logistics, intelligence, and psychological warfare that may limit further his course of action. The communication officer is concerned, first, with the entire operational planning process in his role as adviser and, second, with communication planning in his role as staff communication officer. This separation of communication planning into areas of concern establishes the two phases of the entire communication planning process:

preliminary communication planning and development of the communication plan. Planning after the operation is underway is merely an extension of the development of the communication plan. There is, however, a close relationship and dependency between the two phases that gives further emphasis to the continuing, fluid nature of communication planning. Each stage of development depends directly on the stages that precede it and establishes the basis for those that follow.

CHAPTER 12

Preliminary Communication Planning

12.1 EARLY EVALUATION OF REQUIREMENTS

Preliminary communication planning contributes directly to the formulation of the course of action and is part of the commander's estimate of the situation (see paragraph 2.2.2). During this planning stage, the communication planner, acting in his advisory capacity, supplies the information and evaluations that give the commander a picture of the communication situation, just as charts and maps present a general picture of the strategic situation to him.

12.2 DEVELOPMENT OF INFORMATION

Communication planning is based on the concept of the operation that the commander has developed in his analysis of the mission. The communication planner (like the intelligence, logistics, and other planners) assembles the operational information that falls within his specialty to assist the commander in evaluating each possible course of action. Although the communication requirements of individual naval operations vary in detail, they always follow a definite pattern because of the universal need in naval warfare for rapid, reliable, and secure communications. Because of this, the information that will be needed in planning an operation can be grouped into categories that apply to any operational situation. Figure 12-1 provides a summary of communication planning information. The following paragraphs discuss what the communication planner must know for planning.

12.2.1 Task and Purpose of Commander's Mission. This information is required by the communication planner so that he can deter-

mine the general communication requirements of an operation. In an amphibious operation, it includes the communications needed during planning; organization of forces; and the training, embarkation, movement to the objective, assault, and consolidation phases. The purpose of a mission also influences communication requirements, since it affects the manner in which the operation is to proceed. If an amphibious operation, for instance, is only a raid to destroy an enemy base without subsequent consolidation or development of the area, there is no necessity for providing shore-based communications after the attack phase.

12.2.2 Specific Communication Responsibilities Assigned to the Commander. This information defines the extent of the commander's communication responsibilities during the operation. It outlines the scope of the communication plan to be formulated and establishes requirements to fulfill command relationships between adjacent and coordinate commands. The commander of a naval gunfire support unit, for instance, will not have any responsibility for communications with underwater demolition activities taking place during the operation, unless for some particular reason this responsibility is explicitly assigned to him in his mission.

12.2.3 Organization of the Forces Available to the Commander. The ships, aircraft, and troops assigned to the operation, their task organization, and the demands of supporting operational activities, such as logistics and intelligence, establish requirements for command and tactical communications. This information is derived from the initial planning directive issued by the chief of staff or senior planning officer. When the communication planner knows the breakdown of the force into task

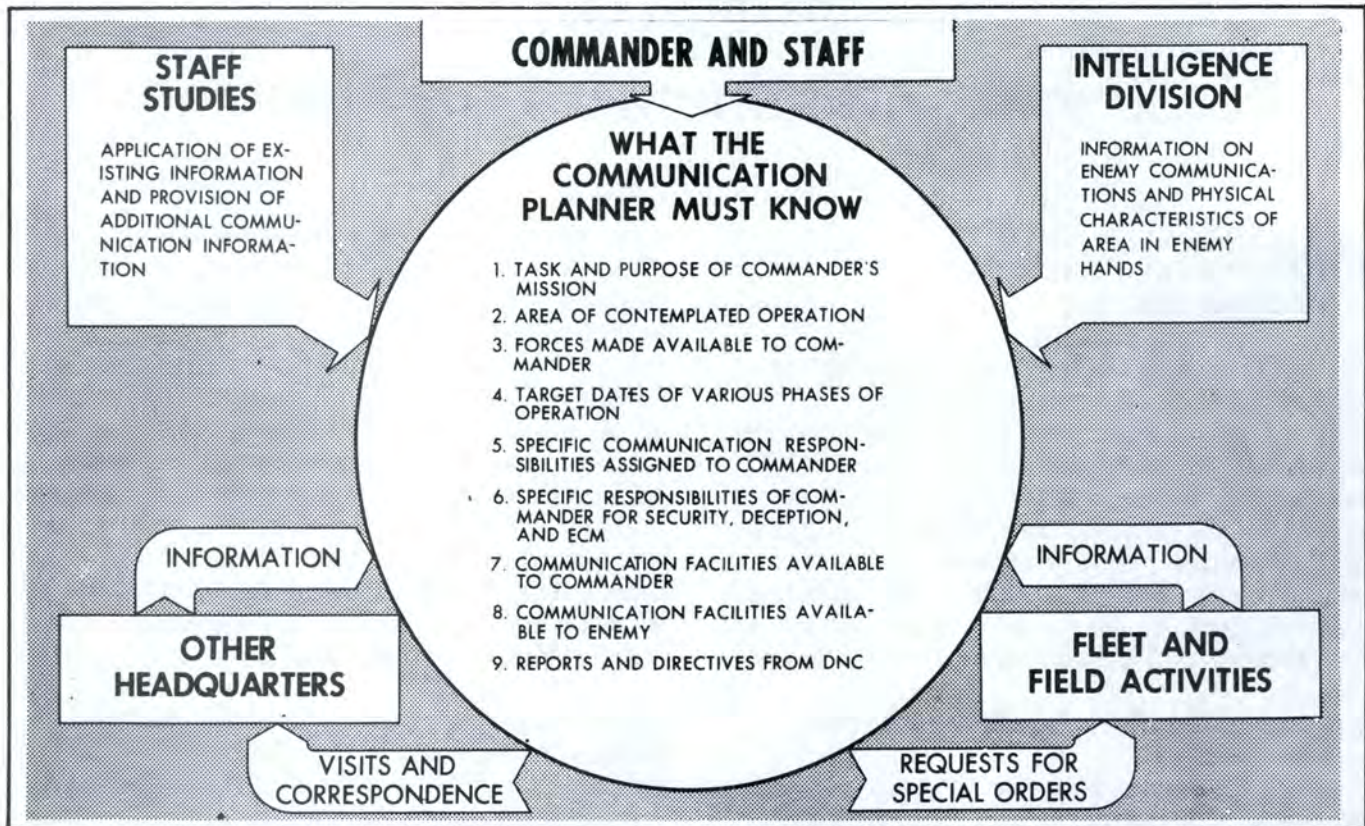


Figure 12-1. Communication Planning Information

groups, units, and elements, he can ascertain, for example, what command circuits are needed to exercise tactical command.

12.2.4 Communication Facilities Available to the Commander. The commander will have at his disposal the communication facilities of the ships, aircraft, and troops under his command and the land-based communication facilities assigned for his specific use or available to all forces in a particular area of operations.

Assembling the data on communication facilities available within the force is a research responsibility fulfilled by the communication planner. By compiling this data, he is able to determine the requirements for additional or

special communication facilities to be requested from higher authority.

The communication planner acquires data relative to communication facilities available in the area of operations from several sources. The primary source consists of the publications, letters of instruction, and plans issued by the Commander, Naval Telecommunications Command, and amplified by fleet or force commanders. Communication officers also receive operation reports and special directives concerning communication matters as they are issued. Information on newly constructed or temporary fixed installations in a particular area of operations can be obtained from the area commander and other force commands in the area.

12.2.5 Physical Characteristics of the Operational Area. Such factors as terrain, geological characteristics, weather, and vegetation affect range and reliability of communications. Separation of forces introduces the problem of communicating over long ranges. The communication planner may be able to obtain information on communication problems unique to the operational area from intelligence sources or from other commands that have operated in the area. In the absence of any concrete information, he must estimate the effect that area characteristics will have on communications. In any case, within the limits of the equipment available, he must compensate for the impact of area characteristics and distance on communications reliability by providing intermediate relay stations, if needed, or selecting the frequency or frequencies that will assure reliable communications over the distances involved.

12.2.6 Responsibilities of the Commander for Security, Cover and Deception, and ECM. The extent of the commander's responsibilities will be clearly stipulated in the mission he receives or in special amplifying directives. The policies and procedures that apply to communications-electronics activities will also be explicitly stated. Definite restrictions may be imposed on the employment of electronic equipment. The extent to which communication cover and deception is to be undertaken by the command will affect personnel and equipment requirements. Since own communications will be subject to enemy interference and interception, the communication planner must evaluate the use of each of the communication facilities to be employed to establish the special electronic countermeasures or security instructions that fall within the scope of the commander's authority.

12.2.7 Evaluation of Enemy Communication Facilities. The communication planner uses intelligence reports, photographs, and other intelligence means available to him (from other commanders as well as from sources within his own command) to evaluate enemy communi-

cation facilities to determine their type, number, and location; their capabilities and techniques; and their vulnerability to interception and interference. The electronic equipment requirements deriving from plans for electronic warfare, therefore, have an important impact on the communication plan.

12.2.8 Target Dates of Various Stages of the Operation. The dates set for the completion of the various stages of the operation determine the sequence of planning. This information is included in the first planning directive issued by the chief of staff or senior planning officer.

The communication planner can determine, by reference to the objectives, purpose, and tasks of the mission, what data will be needed in the communication estimate of the situation, in addition to the information listed in paragraphs 12.2.1 through 12.2.8. He must also consider the special communication requirements of logistic, intelligence, and other supporting activities.

The communication planner summarizes all of his communication information in the communication estimate, which at the option of the commander may be required in staff study form. The communication estimate and related communication staff studies that are prepared at the same time also contribute to the portions of the intelligence estimate that deal with the capabilities and limitations of enemy forces.

12.3 SELECTING THE COURSE OF ACTION

The statement of initial communication requirements for the operation - the first tentative communication staff estimate made early in the planning phase - undergoes constant revision as details of the operation become clearer and requirements are modified or eliminated. As a result, by the time the commander reaches his decision, the communication planner has developed a practical estimate of communication requirements for the operation.

The culmination of the commander's estimate of the situation phase is reached when the commander discards all but two or three tentative own courses of action; from these he selects a best own course of action (his decision). This step crystallizes the concept on which the commander and his staff will base the final operation plan and its supporting communication, logistic, intelligence, and other annexes or the OPGEN PAPA and its supplemental OPGEN messages.

When the commander is making his final judgment, the communication planner may contribute a more detailed and careful evaluation of the communication aspects of each of the remaining own courses of action. His recommendations to the commander must in-

clude specific information on the ability of communications to support the remaining courses of action, the limitations which may be imposed by or upon communications, and other pertinent information which will assist the commander in the selection of the preferred course of action.

The primary purpose of preliminary communication planning is to make a thorough examination and evaluation of factors that the commander must consider in his selection of the best own course of action. During the process, the communication planner compiles and considers the bulk of the information that he will require later in preparing his final communication plan.

CHAPTER 13

Development of the Communication Plan

13.1 THE PLANNING PROCESS

The communication plan annex or OPGEN ROMEO is one of the mediums through which the commander implements his decision. It provides for tactical and administrative communications between commanders, ships, aircraft, troops, and supporting shore stations; for communications needed by logistic support efforts and intelligence and psychological warfare activities; and for all other services and special tasks required to accomplish the mission.

From the development of the communication plan will emerge the detailed operational directive that establishes the communications to be employed by and for the forces assigned to the operation. This development is a continuation and refinement of the studies and evaluations made during the communication estimate of the situation.

Using for guidance the staff planning program and the planning directives that the commander and chief of staff have issued up to this point, the communication planner proceeds with the development of the communication plan through a series of steps in which information is compiled (or extracted from earlier staff studies and estimates) and evaluated. Development of the communication plan is a matter of determining the detailed communication requirements of the operation, satisfying these requirements with adequate means, and, finally, testing the plan in terms of the commander's concept of the operation.

13.1.1 Plans of Subordinate Commands. Supporting plans developed by subordinate commands should amplify the commander's basic plan, as required, by providing a more

detailed treatment of the task and mission assigned. In other words, the communication plan annex to the subordinate commander's OpPlan or OpOrder or the OPGEN ROMEO to his OPGEN PAPA should fully treat the technical communication details that are not needed for, and are usually omitted in, the plans of a superior. To facilitate the dissemination and proper use of these detailed instructions, the communication planner should give due consideration to their logical presentation and compilation, so that they may be readily extracted and used by those who must carry them out. For example, an operation that requires prolonged periods at sea or the daily detachment of units will require frequent shifts in radio guard responsibilities to allow for maintenance periods or for the accomplishment of the detached units' tasks. The inclusion of a compilation of radio guard lists on a day-to-day basis in the OPGEN ROMEO or an appendix to the communication plan annex will permit this information to be extracted and posted in the radio room for use by radio supervisors.

13.2 PLANNING INFORMATION NEEDED

During the development of the communication plan, the communication planner requires specific information, gathered from numerous sources. Appendix C provides a check list for guidance in compiling informational data. Figure 12-1 shows the categories of information. In general, the information falls into two groups:

1. Information regarding the forces involved in the operation, the task organization, and the tasks that the forces must perform

2. Information concerning the communication facilities available to the forces for the fulfillment of their tasks.

13.3 DETERMINATION OF REQUIREMENTS

The communication planner establishes the communication requirements of the operation by making an analysis of the operation on the basis of the following:

1. Command primary and secondary communications
2. Communications for logistic and other service and support activities
3. Tactical communications (the circuits that cut across command channels and connect elements of various echelons engaged in the same type of activity, such as air defense, air support, shore bombardment, or antisubmarine warfare operations)
4. Communications security, deception, and electronic countermeasures.

During development of the communication estimate of the situation and the preparation of communication staff estimates and studies, the communication planner has assembled all of the information available on the communication aspects of the operation. This information, along with the data on logistics, intelligence, and other phases of the operation, served as the foundation for the commander's decision. The communication planner supplements the communication studies and estimates developed up to this point with additional studies and estimates as required during the development of the communication plan. He now weighs his information in terms of the course of action that is to be followed and evaluates all the data in terms of the fundamental communication requirements for all naval operations as set forth in NWP 4, Basic Operational Communications Doctrine. This is his check to ensure

that all the communication aspects and considerations of the operation are taken into account.

13.4 DETERMINATION OF THE MEANS

The communication planner determines the means - the communication facilities and the procedures and policies that govern their use - that can be employed to satisfy the requirements of the operation. He has four sources:

1. Information gathered from other commands or presented in communication staff estimates and studies made up to this point
2. His canvass of forces assigned to the operation to determine the communication capabilities and facilities of each element
3. Specific information from the Director, Naval Communications, on all facilities and services provided within the framework of the Naval Communication System (including complete information on new installations, inactive facilities, and up-to-date data on the status of worldwide radio services)
4. Exact information on the frequencies available for the operation from frequency instructions issued by fleet or unified commanders.

After the communication planner has determined the means to be employed, he refers to the instructions received by the commander of the operation from higher authority and to those contained in publications issued by the Chief of Naval Operations. He is now ready to determine which means will best meet each requirement and to formulate the communication plan.

13.5 FORMULATION OF THE COMMUNICATION PLAN

The communication plan states the requirements of the operation in terms of the circuits, channels, and facilities that are to be employed

and stipulates the policies and procedures that are applicable. The communication planner applies available facilities to each requirement in turn; by this process he examines all requirements and ensures thorough consideration of the communications needed for the operation.

This process of matching facilities to requirements reveals immediately any gaps or inadequacies in available communication facilities. In determining the means of communication that will best meet the requirements, the communication planner must consider:

1. The availability of operating personnel within the forces assigned
2. The technical and operational characteristics, capabilities, and limitations of the electronic equipment available.

If there is a communication requirement for which there are no adequate means or facilities, it becomes the immediate responsibility of the communication planner to make provision for the expansion of the communication facilities in the forces or in the area. He informs the commander of the necessity for additional facilities and the commander requests them through his superior.

13.5.1 Use of Communication Planning Factors. Communication planning factors are expressions in condensed form of the performance, capabilities, and capacities of various systems, facilities, or personnel used for communicating. They are expressions of theoretical performance, modified by natural, mechanical, or human limitations, that represent the actual performance that may be expected under operating conditions.

To illustrate: The theoretical capacity of a radio teletypewriter channel for point-to-point use, operating on a simplex basis and using 100 word-per-minute equipment, would be 144,000 words per 24-hour period, computed as follows: 100 words per minute X 60 minutes = 6,000 words per hour X 24 hours = 144,000 words per

day. Obviously, this performance can never be attained because of the many limitations which reduce the actual capacity of a radio teletypewriter circuit, such as the type of equipment used, in-station handling, relay methods, procedures used, and outage factors. Actual experience would probably show that the planning factor for a 100 word-per-minute radio teletypewriter channel under optimum conditions is more realistically 93,000 words during a 24-hour period. Actual experience has shown that the accepted planning factor for a 60 word-per-minute radio teletypewriter channel under optimum conditions is 55,400 words during a 24-hour period.

More realistic figures should be used in considering the communication means to be employed. When using communication planning factors, keep in mind that they are merely guides and averages, which represent the net result of experience under varying conditions, and that they should be used only after local factors, which may affect their accuracy, have been taken into account.

Communication planning factors will change from time to time as new and improved equipment becomes available or as techniques of evaluating operating data are developed. As a practical approach to the solution of communication problems within a force or organization, the communication planner can compile and develop particular factors to meet his own needs.

13.6 COORDINATION AND LIAISON

At the outset of planning, the communication planner and all other staff planners establish both formal and informal methods of exchanging information to make sure each knows the problems and requirements of the others. Through such liaison and coordination, the communication planner has continuous knowledge of the expanding and changing communication needs of the various aspects and phases of the operation. Likewise, he makes known the communication needs that must be

satisfied by logistics, intelligence, and other planners (such as electronic material procurement, special intelligence information, or personnel requirements).

Another vital aspect of coordination and liaison is the flow of information (1) from the commander to his superiors to keep them informed of his needs and (2) from the commander to his subordinate commands so that they can fulfill the planning and operational requirements imposed on them by the operation. As the commander maintains this coordination

with other commands, the communication planner likewise maintains coordination on communication matters with planners and officers of higher and subordinate echelons.

13.7 APPROVAL OF THE COMMUNICATION PLAN

When the communication plan is complete, the communication planner submits it to the commander for approval. It is issued as OPGEN ROMEO or as the Communication Plan Annex to the basic directive (see paragraph 14.3).

CHAPTER 14

The Communication Plan

14.1 THE DIRECTIVE AND ITS ANNEXES

The communication plan is a proposed procedure for the employment of naval communications in a naval operation. It becomes the communication directive when it is issued by the commander of the operation to his subordinate commanders as part of the overall directive governing the actions and conduct of the forces. This directive, which must impart to each subordinate commander an understanding of the operation and each subordinate's responsibility in it, is placed in effect at the direction of the commander at a specified time. The different types of directives are described in Chapter 4.

The Communication Plan Annex supplements the basic operation plan or operation order. It prescribes the essential communication means and the methods of their employment that implement the commander's wishes as he has stated them in the governing directive. The annex contains the general plan covering the communication requirements for the operation. Information that is too extensive or not appropriate for inclusion in the annex may be included in an appendix to the annex; information amplifying an appendix may be included in a tab to the appendix. As in the operation plan or operation order, reference designators apply only to the source in the particular annex, appendix, or tab in which they appear (see paragraph 4.2).

14.2 THE FORM AND CONTENT

NWP 4, Basic Operational Communications Doctrine, is effective throughout as it applies to the situation; except as NWP 4 is modified or amplified by statements in the Communication

Plan Annex. Interpretation of the applicability of specific articles in NWP 4 to the Communication Plan Annex is the responsibility of the command that issues the annex. For OPGEN ROMEO format, consult APP 4.

There are further requirements for the communication plan that are essential to clarity and effectiveness. The plan must be sufficiently detailed to prevent misunderstanding, but duplication of the superior's directives should be kept at a minimum. Unnecessary repetition burdens individual ships with a bulk of written instructions that are not necessary for their operations and that tend to submerge the portions of the plan that are pertinent to their operations. Repetition also introduces the possibility of error when the originating commander issues changes to his communication plan. Reference to the applicable instructions contained in plans from higher authorities should be sufficient.

14.2.1 Content of the Communication Plan. Relegation of instructions and information to appendixes and tabs is largely a matter of judgment on the part of the communication planner. When the information is not of principal interest to all communication personnel, it is more efficient to incorporate it in appendixes and tabs. Such devices facilitate separate distribution of information to activities related to communications (see paragraph 4.2). Examples of subjects normally presented in appendixes and tabs are:

1. Communication and radar guardship lists
2. Communication instructions related to ECM and CIC operations
3. Communication intelligence

4. Communication security
5. Essential elements of friendly information (EEFIs)
6. The radio frequency plan for the operation
7. Call signs.

To illustrate the form and organization of the communication plan, Appendix C includes an example of a Communication Plan Annex to an operation plan or order. This example is inserted as a guide to assist the planner; do not conclude that the annex for every operation must contain all communication items listed. Although the radar guardship lists and communication instructions relating to ECM and CIC operations may appear in other plans of a directive, it is sound practice to include at least a cross reference in the communication plan to ensure that there are no errors or duplications regarding electronic communications, emissions, and radiations for any purpose whatsoever. The headings, source documents, and endings of the annex and its supporting appendixes and tabs should conform to the requirements of paragraph 4.2.

14.2.2 Distribution of the Communication Plan. The Communication Plan Annex is a supporting plan of the basic directive. It may be either bound with the basic directive or bound separately. In the latter case, it may be — and frequently is — mailed separately. It is also a common and desirable practice to provide additional copies of the annex, since extra copies will make the information more widely available down through the communications organization.

14.3 EXECUTION AND SUPERVISION

No directive, no matter how well prepared, can possibly provide for every eventuality

which may arise during its execution. Chapter 5, which describes the supervision of planned action and subsequent amendment of the plan if required, should be followed closely. The communication planner assists the commander in this continuing effort by maintaining a running estimate of the communication situation. He will, therefore, be in a position at all times to advise and inform the commander and key staff members concerning the exact state of communications within the operating forces for which he has planned.

The conduct of communications requires close supervision as the operation progresses toward its conclusion. The communications planner must always be sensitive to the responsiveness of communications to the needs of the command. If his running estimate of the situation discloses serious communication inadequacies, he must take action and issue changes, if necessary, to overcome the deficiencies. Once the directive has been issued, it is obvious that the communication planner should make only necessary changes and that his changes must be made in a form that cannot be misunderstood.

14.4 JOINT COMMUNICATION PLANNING

The importance and complexity of communications-electronics in exercising command and control of operational forces necessitates adequate communications-electronics (C-E) planning, particularly joint planning, since the C-E capabilities of more than one service and possibly other governmental agencies will be employed in unison to achieve optimum command and control relationships. JOPS, Vol. I, and ACP 121, US SUPP 1, contain format outlines, descriptive materials, and control relationships to assist in the preparation of joint C-E plans and C-E annexes to joint operation plans (see also Figure C-5 in Appendix C).

PART IV

Intelligence Planning

- Chapter 15 The Nature of Intelligence**
- Chapter 16 The Intelligence Division and the
Intelligence Officer**
- Chapter 17 The Process of Intelligence Planning**
- Chapter 18 The Intelligence Estimate**
- Chapter 19 The Intelligence Annex**
- Chapter 20 Supervision of the Planned Action**

CHAPTER 15

The Nature of Naval Intelligence

15.1 USE OF THE TERM NAVAL INTELLIGENCE

This term has two distinct meanings:

1. When the initial letters are capitalized, "Naval Intelligence" is a general term that refers to those organizations which, under the Director of Naval Intelligence, carry out the Navy's intelligence missions. These missions include the foreign intelligence, counterintelligence, investigative, and security requirements and responsibilities of the Department of the Navy and certain functions in support of fleet intelligence activities.

2. When the initial letters are not capitalized, "naval intelligence" is an abstract term that refers to intelligence of naval interest. This may include either intelligence information or finished intelligence on foreign navies and merchant and fishing fleets.

15.2 NAVAL INTELLIGENCE ORGANIZATION

The organization for Naval Intelligence consists of the following components. For mission and function statements, refer to NWP 12-9, Naval Tactical Intelligence.

15.2.1 The Office of Naval Intelligence (Op-009). The organization of the Office of Naval Intelligence is shown in Figure 15-1.

15.2.2 The Naval Intelligence Command. The organization of the Naval Intelligence Command is shown in Figure 15-2. This command contains the following:

1. Headquarters elements
2. Naval Intelligence Support Center (NISC)
3. Naval Intelligence Processing System Support Activity (NIPSSA)
4. Navy Operational Intelligence Center (NOIC) (including Naval Ocean Surveillance Information Center (NOSIC)).

15.2.3 Fleet Intelligence Activities

1. Fleet intelligence centers
2. Intelligence staff components of the operating forces, sea frontiers, and overseas bases
3. Fleet intelligence detachments and support centers
4. Fleet air intelligence detachments and support centers.

15.3 CATEGORIES OF NAVAL INTELLIGENCE

Those organizations which carry out the Navy's intelligence missions provide inputs for two broad categories: operational intelligence and strategic intelligence. Because the categories invariably overlap, the terms are used only to denote general areas of interest.

15.3.1 Operational Intelligence. Operational intelligence is the information required by operational commanders for planning and executing all types of operations. It is similar to combat intelligence, except that the latter term implies a situation involving actual hostilities. It is sometimes confused with combat or tactical

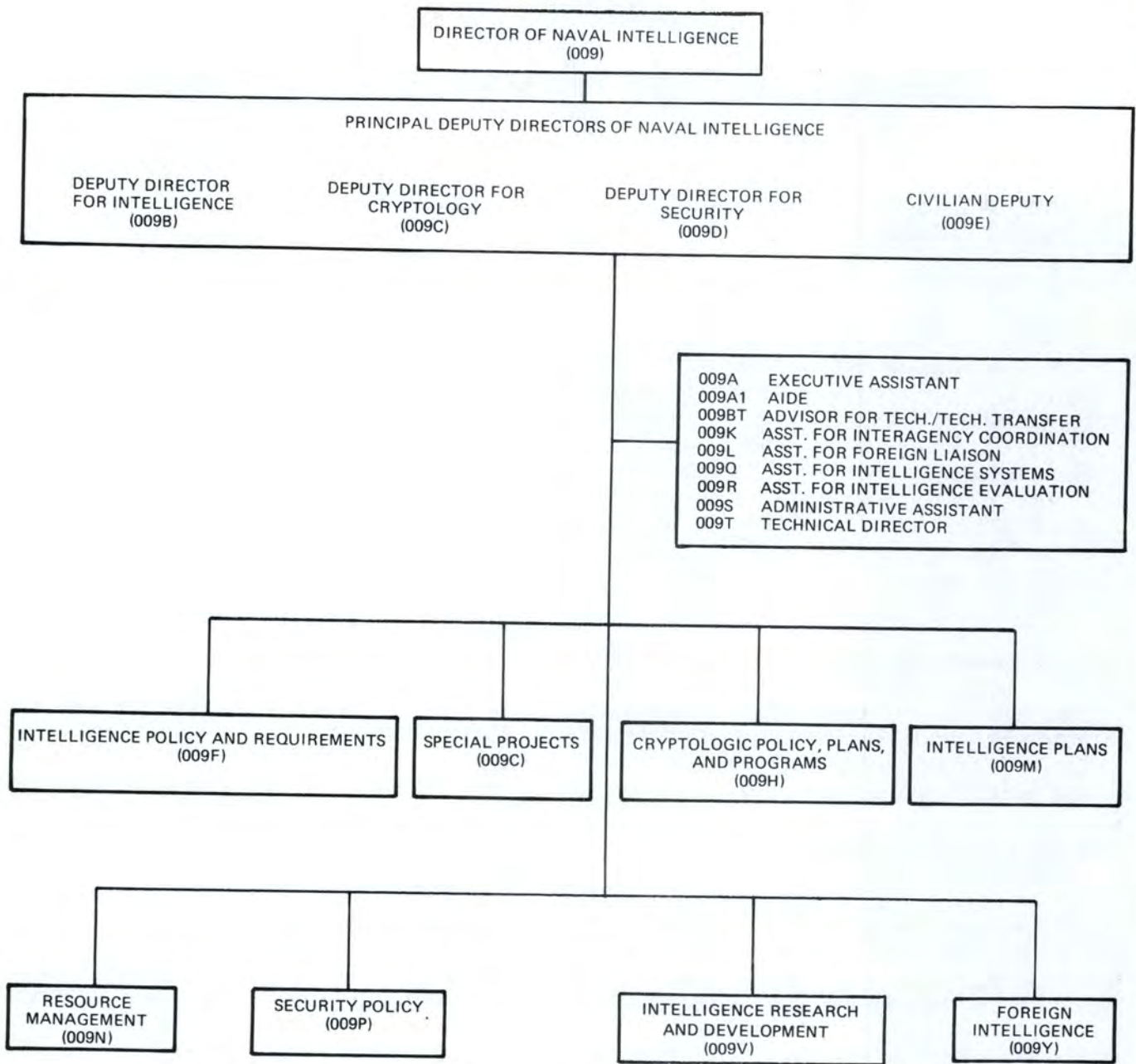


Figure 15-1. Organizational Relationship of the Office of Naval Intelligence

NAVAL INTELLIGENCE COMMAND

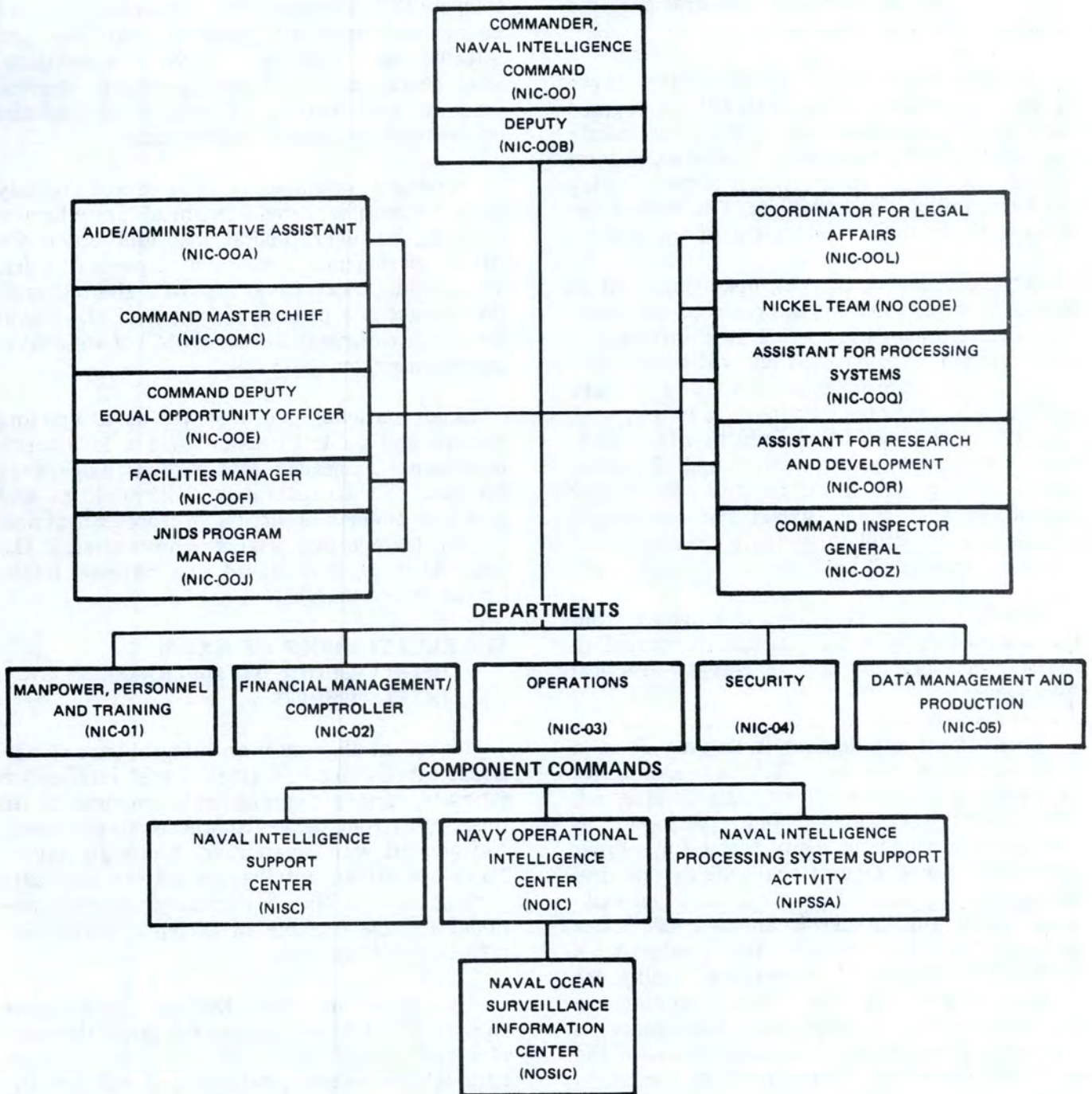


Figure 15-2. Organizational Relationship of the Naval Intelligence Command

surveillance, which attempts to provide a systematic watch over a battle or operations area to obtain timely information.

At the Department of the Navy level, operational intelligence is required to support the Navy's peacetime responsibility for assessing indications of impending hostilities, general war, or developing international crises. During wartime, operational intelligence is needed for defense of the nation and control of the seas.

At the operational level, operational intelligence is conditioned by the needs of the command or commands for which it is intended; it must contain information that will help to accomplish the operational mission. The primary interest of operational commands is in information on specific situations which affect their tasks. Consequently, the main thrust of operational intelligence is information on enemy capabilities that could thwart the operational commander in employing available courses of action to accomplish his mission.

The subject of operational intelligence from the perspective of a tactical unit is treated in detail in NWP 12-9, Naval Tactical Intelligence.

Operational intelligence is derived from a wide variety of sources. Collected intelligence information is processed, evaluated, analyzed, integrated, interpreted, and produced as finished intelligence in many forms for a great number of users. Operational intelligence, including indications and warning, ocean surveillance data, and in-depth analysis of Soviet strategy, doctrine, tactics, and readiness, is produced by the Naval Operational Intelligence Center (NOIC) of the Naval Intelligence Command (NIC). Operational intelligence is produced in response to the requirements of the Joint Chiefs of Staff, Department of the Navy, Defense Intelligence Agency, and joint commands.

15.3.2 Strategic Intelligence. Strategic intelligence is required for the formation of policy and military plans at national and international levels. Like operational intelligence, strategic intelligence is derived from a wide variety of sources. It includes operational intelligence information.

Strategic intelligence is produced mainly from scientific and technical intelligence analysis; however, operational and order-of-battle intelligence also have important roles. The production of naval scientific and technical intelligence is a primary function of the Naval Intelligence Support Center (NISC) of the Naval Intelligence Command (NIC).

Since national policy serves as a standing precept and guide to action over a long term, intelligence is needed that affords long-range forecasts of the capabilities, vulnerabilities, and probable courses of action of foreign nations. Such a strategic appraisal, when prepared at the national level, is produced as a national intelligence estimate (NIE).

15.4 RELATIONSHIP OF NAVAL INTELLIGENCE TO NATIONAL INTELLIGENCE

Naval intelligence is an integral part of national intelligence. Strategic naval intelligence estimates are of considerable importance to those NIEs that deal with the strategic threat and general war capabilities of foreign navies. Navy operational intelligence plays a very important part in the production of various national and Department of Defense current intelligence publications.

Functions of the Defense Intelligence Agency (DIA) do not appreciably alter the mission and responsibilities of naval intelligence, although the actual production of military intelligence is the responsibility of DIA, which provides for the activities and operations.

CHAPTER 16

The Intelligence Division and the Intelligence Officer

16.1 THE INTELLIGENCE DIVISION

Because intelligence planning is a major component of operational planning, it requires a division in naval staff organization. By combining the estimate prepared by the staff intelligence division with the estimates prepared by other staff officers, the commander constructs his own estimate of the situation and proceeds to the development of his operation plan. The end product of the planning process — the operation plan — will contain an intelligence annex. It is toward the preparation of this annex that the greater part of the intelligence division's efforts are directed.

The staff intelligence division is divided into three branches, which are usually titled administration, intelligence, and security.

16.1.1 Administration Branch. The administration branch provides the services by which the intelligence and security branches accomplish their missions. Aside from such customary administrative activities as control of personnel, fiscal, and supply, branch services include the facilities used for the effective graphic presentation of the intelligence that is collected, evaluated, and recorded by the intelligence division; printing and other forms of reproduction; photography; cartography; construction of models; and storage. The branch also lends guidance and aid in establishing format and determining distribution.

16.1.2 Intelligence Branch. The intelligence branch is concerned directly with the collection of information and the production of intelligence. It prepares estimates, maintains visual presentations, disseminates spot or special

intelligence, supplies technical aids, and maintains liaison outside the intelligence division. It studies, in effect, everything relative to positive intelligence, whether concerned with geography, armed forces, technical civil matters, type warfare, or target aspects.

The head of the intelligence branch maintains direct control over the activity of his branch, channeling effort toward collection of information and production of intelligence in support of plans. With the aid of his assistants, he compiles intelligence estimates, with specific responsibility for keeping the estimates current and complete, and maintains situation plots and other charts. These plots and charts are the graphic forms of the estimates, visualizing movements, order of battle, geography, positioning, targets, gun emplacements, radar, supply dumps, harbors, defenses, hideouts, and other factors. As information and analysis indicate, the head of the intelligence branch alters and improves the plots, providing quick and current pictures of the enemy situation.

The intelligence branch may be divided into sections assigned specific tasks. But any of the sections must be adaptable to changing needs. For example, an amphibious warfare section should be prepared to become a submarine section or an unconventional weapons section, depending on current conditions. The target analysis section might be subdivided several times, if the task of selecting special targets is emphasized. In other words, the intelligence officer must adapt the organization of the branch to the demands of the task that the command was ordered to undertake. In a small division, the intelligence planner adopts the same categorization of tasks, even though he may

have to perform most or all of the tasks unaided.

16.1.3 Security Branch. The security branch recommends measures to protect the command against enemy intelligence activities, espionage, subversion, and sabotage. Special functions of the branch include:

1. Planning, implementing, and supervising active and passive counterintelligence measures
2. Preparing counterintelligence estimates, plans, and reports
3. Coordinating counterintelligence activities and information within the command and maintaining liaison with other commands and security organizations regarding counterintelligence and investigative matters.

At high command echelons, the security branch may require staff billets. On smaller staffs, the functions are usually assigned as a collateral duty.

16.1.3.1 Aiding Force Operations. The security branch seeks to utilize security information from various sources to directly benefit force operations. For example, counterintelligence information supplied by the Naval Investigative Service (NIS) may provide useful positive intelligence on the enemy or the area of operations. Prisoner interrogation, captured document analysis, investigation of enemy agents, or reporting on local insurgent groups may develop information that has a direct bearing on current or projected operations.

Deception planning must be closely coordinated with and supported by the security branch so that:

1. Deception measures may be best tailored to what is known of the enemy's intelligence efforts

2. Deception measures do not reveal to the enemy any indication of our knowledge of his intelligence efforts and sources.

The deception plan is conceived as an operation of its own. By superficially duplicating the efforts of the actual preparations, the deception operation attempts to convince enemy intelligence that our situation is other than it really is, and thereby weaken and unbalance enemy forces. The deception planning group, which is generally a separate staff of specialists, is closely coordinated with the operations division. (See NWP 34, Navy Operational Deception.)

In addition, recommendations on cover and camouflage projects are also a function of the security branch.

16.1.3.2 Security Liaison Function. The security branch maintains liaison with the Naval Investigative Service (NIS) and other commands regarding security matters. Counterintelligence and investigative information of security interest to the command is normally developed or reported by NIS, since NIS fulfills the investigative and counterintelligence responsibilities of the Department of the Navy (less those combat-related counterintelligence activities under the functional responsibility of the Marine Corps).

NIS is represented in local areas by Naval Investigative Service Offices (NISOs). To provide timely investigative and counterintelligence support to commands, NISO commanding officers have additional duty for these matters on the staffs of the senior local commanders (naval district commandants, force commanders, etc.). The information they provide serves as a basis for developing preventive security measures. NISOs, as authorized channels for liaison with other government counterintelligence, security, and law enforcement organizations, can expand the scope of security and counterintelligence information through their contacts with these organizations.

16.2 INTELLIGENCE OFFICER'S FUNCTIONS

Broadly speaking, the staff intelligence officer has five functions:

1. To supply the commander with intelligence on the strength, disposition, capabilities, and probable movements of enemy forces and on the characteristics of the area of operations
2. To assist the commander in applying counterintelligence and in establishing security measures that will conceal own intentions and activities and neutralize the effectiveness of enemy intelligence
3. To disseminate to lateral and subordinate commands intelligence pertaining to their missions that he has gathered in the course of meeting his own needs and to assist lateral and subordinate commands in the collection, processing, and distribution of intelligence for which they have particular need but are not in a position to collect
4. To supply the Office of Naval Intelligence and other appropriate senior commands with information and intelligence of value to them and to plan and supervise intelligence collection by subordinate units
5. Although not an intelligence function, knowledge of the amount of information potentially available to the enemy through communications insecurities is necessarily of interest to the security branch as an aspect of any counterintelligence effort and as an integral part of deception planning.

In order to do an effective job of intelligence planning, all intelligence planning officers must be thoroughly familiar with Operational Planning, Part I of this volume.

16.2.1 Liaison. For the intelligence officer to function most effectively on the staff, he must maintain close liaison with departmental agencies and higher echelon intelligence divisions that can help him provide the knowledge of the enemy needed by the commander and his operating forces. The operational intelligence officer serves, therefore, both as an assistant to his commander and as a channel for all military intelligence. The intelligence officer depends on the agencies of higher command for much of the initial information in any given operation.

16.3 ANALYSIS OF THE MISSION

Every level of command will have a different perspective regarding the mission. At the area level, developing plans will create new missions for lower echelons; these will, in turn, create other missions for still lower echelons. Unit commanders will finally receive orders directing them to the most specific objectives (targets). But the intelligence planning process is essentially the same at all command levels; the first step in planning is to interpret the mission in the light of purpose and objectives, then outline the tasks to be undertaken to accomplish the objectives. This is as applicable to intelligence planning as it is to other staff responsibilities. Not until this analysis is complete is the staff in a position to begin the intelligence estimate for a specific situation and to assist the commander in developing the plan that will lead to the course of action that will accomplish his mission.

CHAPTER 17

The Process of Intelligence Planning

17.1 CRITERIA OF INTELLIGENCE

Information alone is not intelligence, any more than iron ore is steel. Intelligence is processed information, gathered and prepared for a specific purpose and use. It is developed logically, from the original plan for information collection to the final dissemination of processed information to operating agencies. In final form, intelligence develops a theme that connects a set of facts from which conclusions may be drawn that bear on the requirements of an operation. The significance of the theme varies according to its degree of completeness and the specialized interests of the persons who use it. Before information becomes intelligence, it must be tested for validity, analyzed, correlated with all other bits of information on hand, and given form; and it must have meaning and unity. Finally, intelligence is channeled according to the end in view.

17.2 THE INTELLIGENCE CYCLE

At the outset, two characteristics of the intelligence cycle (Figure 17-1) should be set firmly in mind: first, that the four steps of the cycle are so thoroughly interdependent that no one of them can have any meaning without the others and, second, that the cycle is continuous because intelligence is seldom complete and soon becomes outdated if it is not continually reviewed and revised as new information is received. The four steps are:

1. Direction — Determination of a collection plan, issuance of orders and requests to information collection agencies, and a continuous check on the productivity of collection agencies.

2. Collection — The exploitation of sources of information by collection agencies and the delivery of this information to the proper intelligence unit for use in the production of intelligence.

3. Processing — The step whereby information becomes intelligence through evaluation, analysis, integration, and interpretation.

4. Dissemination — The timely conveyance of intelligence, in an appropriate form and by any suitable means, to those who need it.

17.3 COLLECTION

Planning for the collection of information involves consideration of the intelligence problem at hand. Even though no operational mission has been assigned, collection is part of the routine duty of the intelligence officer, primarily in anticipation of future missions for which basic information will be required. Planning in advance of an assigned operational mission resembles detailed operational planning, except that almost all information (rather than just the most pertinent information) has intelligence value. Figure 17-2 shows a sample collection plan, which illustrates the discussion in the following paragraphs.

17.3.1 Essential Elements of Information.

As soon as the intelligence problem has been defined by the commander's mission, the intelligence officer arranges a method for answering pertinent questions about the enemy. First, he lists the essential elements of information (EEIs). These are simply requirements for information that is essential to the completion of the mission but unobtainable within the intelligence division. EEIs are usually stated as questions. For example, an EEI might be the

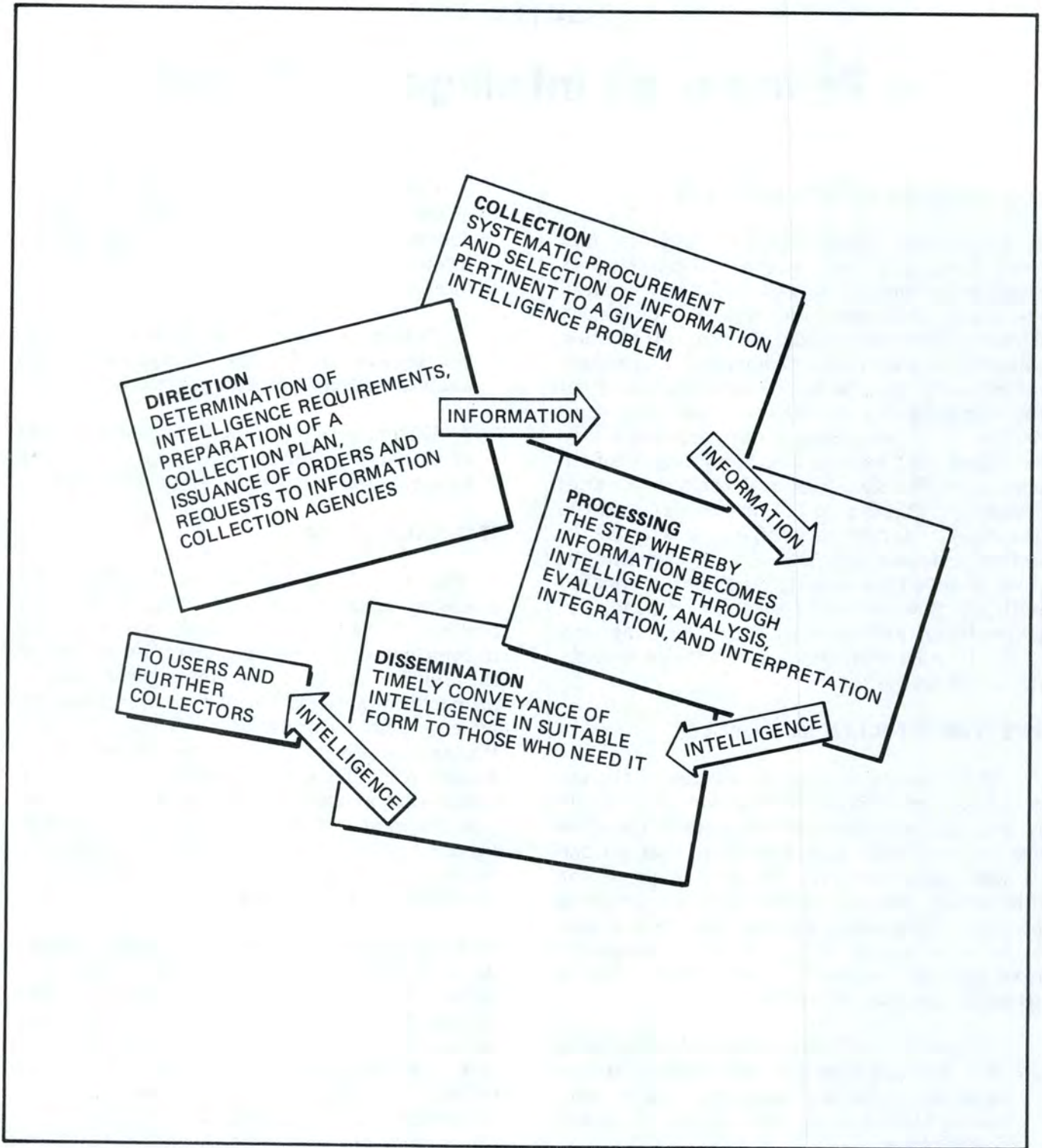


Figure 17-1. The Intelligence Cycle

ESSENTIAL ELEMENTS OF INFORMATION	INDICATIONS	COLLECTION AGENCIES				TASKS OR REQUESTS
		SEAL TEAMS	COLL. TEAMS	AIR REC.	WHEN DESIRED	
1. Will the enemy defend on the beaches or inland?	(a) Beach defense construction	X		X	D-60, D-20, D-1	<p>SEAL TEAMS</p> <ol style="list-style-type: none"> 1. Report status of construction in beach area by D-60, D-20, D-1. 2. Locate and report observation points in beach area by D-20, D-1. 3. Report position and destruction of underwater obstacles by D-60, D-20, D-1. <p>COLLECTION TEAMS</p> <ol style="list-style-type: none"> 1. Locate and report gun positions by D-10. 2. Report location of observation points by D-20, D-1. 3. Report increased supply activity by D-60, D-30, D-5. 4. Report change in radio traffic by D-30, D-5, D-1. 5. Report presence of new or strange equipment by D-5. 6. Report increased security in localized areas by D-30. 7. Report new uniform markings or presence of civilians by D-5. <p>AIR RECONNAISSANCE</p> <ol style="list-style-type: none"> 1. Report status of and identify construction in beach area by D-60, D-20, D-1. 2. Locate and report gun positions by D-10. 3. Report location of observation points by D-20, D-1. 4. Report increased supply activity by D-60, D-30, D-5. 5. Report increase in bivouac areas by D-20. 6. Report presence of new or strange equipment by D-5. 7. Report increase in small boat activity by D-20, D-5.
	(b) Location of gun positions		X	X	D-10	
	(c) Location of observation points	X	X	X	D-20, D-1	
	(d) Position of underwater obstacles	X			D-60, D-20, D-1	
2. Will the enemy reinforce prior to D-day?	(a) Increased supply activity		X	X	D-60, D-30, D-5	
	(b) Increased radio traffic		X		D-30, D-5, D-1	
	(c) Increase in bivouac areas			X	D-20	
	(d) Increase in small boat activity			X	D-20, D-5	
3. Will the enemy employ unconventional weapons?	(a) Presence of new types of equipment		X	X	D-5	
	(b) Increased security in localized areas		X		D-30	
	(c) Presence of special technicians		X		D-5	

Figure 17-2. Sample Collection Plan

query, "Will the enemy resist an amphibious landing at Beach Red?"

17.3.2 Indications. Next to the questions the intelligence officer lists the indications which, if he knew them in detail, would provide the answers. Indications are those evidences of enemy activity, either positive or negative, which point toward the enemy's adoption or rejection of a particular course of action. The absence of positive indications in one direction may tend to strengthen those pointing in another. For example, positive indications might be:

1. "The presence of emplaced artillery in the vicinity of Beach Red."
2. "The movement of reinforcements to Beach Red."
3. "The relocation of command posts well forward in the area."
4. "The recent placement of underwater defenses off Beach Red."

17.3.3 Collection Agencies and Their Tasks. After the intelligence officer has listed the essential elements of information and indications, he determines the sources of information available to him: higher and collateral agencies, intelligence and other specialist teams, agents, and subordinate forces. He must schedule their employment, but with an eye on timing, other duties, and urgency of need.

Next to the indications he lists the collection agencies, the tasks which they should perform, and the schedule by which they should complete the tasks. For one indication, the collection agency is an aerial reconnaissance squadron; the task, to conduct photographic reconnaissance; and the schedule, to begin on D-90 and continue through D-1. For another, a seal team is the logical collection agency; the task, to conduct underwater and beach reconnaissance; and the schedule, from D-14 through D-10.

During war, the difficulties involved in collecting information are considerably heightened because of the more determined measures that the enemy takes to frustrate our intelligence system. The methods we use, therefore, must be those which cannot be thwarted or which at least stand a reasonable chance of success. Photographic, submarine, and radar reconnaissance and covert agents or agencies generally must be used to ensure profitable collection. Tasks are distributed according to the ability of the collector. For information on a landing area, a submarine may be assigned the task of obtaining horizontal views, an air reconnaissance squadron may be detailed to get vertical and oblique photography, and an agent may be employed to obtain order of battle information.

17.3.4 Supervision of Collection. The intelligence officer continues planning for collection throughout the combat phase to maintain a constant flow of information to the commander. Previous intelligence may be superseded due to new conditions, may be found to be inaccurate, or may be affected by combat circumstances. Although the whole planning process is considerably speeded up during battle, the essential planning approach remains constant. Essential elements of information, indications, and collection agencies are still arranged and checked, though the arranging and checking may be done entirely in the mind of the intelligence officer.

17.3.5 Priority. The intelligence officer determines the priority of incoming information by answering the following questions:

1. Is it information of the enemy or of the characteristics of the area of operations?
2. Is it information needed immediately and, if so, by whom?
3. Is it information of future value?
4. Is it information of value to this unit or to lower, higher, or collateral echelons?

17.4 PROCESSING

Information about the enemy should never be brought to bear on operations until it has been thoroughly processed. This is the indispensable second step of the intelligence cycle and it must be thoroughly understood, if intelligence furnished the operating forces is to be of any value. Information must first be recorded. It must then be evaluated for reliability of source and accuracy of content, analyzed for its meaning, and interpreted for its effect on own operations.

All information should be regarded as suspicious until it has been processed. It must be tested, not only for its credibility and accuracy, but also for its pertinence to the problems of the particular operation. As the intelligence officer weighs each item of information, he should ask himself such questions as:

1. "Is it confirmed or substantiated by, or does it conflict with, other information already received?"
2. "What additional information do I need to determine its validity and full significance?"
3. "Does it change the evaluation and significance of information previously received?"
4. "Does it supply the answer which we must have to complete this operation?"

Intelligence thus developed must be sifted so that only the most salient facts are passed on to the commander. The complexity of modern warfare does not permit an operational commander to determine for himself the value of each separate item. Staffs and standard procedures have been established to clear away the vague and the unnecessary, leaving only essential, significant, and crucial indications of enemy capabilities and courses of action.

17.4.1 Recording. Before the intelligence officer begins studying his information, he organizes it for immediate reference. He examines incoming information at once for items of immediate tactical importance. After his preliminary examination to determine possible urgency, he records the information according to its time of arrival; posts it on a map or chart, if possible; and sorts, groups, and lists it by subject for handy comparison and study. It is then ready for processing.

17.4.1.1 Intelligence Journal. The intelligence journal summarizes the files which contain the originals and details of all items recorded in the journal. It thus serves as a guide to the development of information collection and dissemination by recording those items which have gone through, or are presently within, the intelligence cycle.

17.4.1.2 Situation Plot. Once incoming items have been logged in the intelligence journal, they are (if possible) posted on the situation plot — a map or chart of the operating area containing the movements, positions, defenses, and establishments of the enemy and sometimes of own forces. Standard symbols and conventional signs are used wherever possible to clarify the plot and avoid cluttering it.

The situation plot is a visual counterpart of written reports. It is never used as a substitute for, but rather in conjunction with, other means of recording information. For the quickest and most vigorous presentation of the enemy's physical situation, the plot has no rival. Maps, charts, and terrain models used in the dissemination process are often derived directly from it. It also serves as the basic graphic means of presenting the enemy situation to the commander and his staff.

The situation plot is a plot of the present situation only and should contain only the most up-to-date information. Past situations are placed in the files for reference and for the development of ideas. The latest plot is issued as often as the collection schedule will permit.

In addition to the situation plot, an incident plot may be maintained to spot sightings; unexplained lights, flares, and explosions; and miscellaneous suspicious incidents. It may be used as a handy chart for the detection of patterns and possible correlations of unexplained incidents.

17.4.1.3 Intelligence Work Sheet. The intelligence work sheet is a highly useful recording device. It contains groups of items sorted by subject. Information is so arranged in the work sheet that related facts will be correlated in one page or section. It is frequently used in the preparation of tentative outlines for special aspects of the enemy situation.

The work sheet is a handy memorandum that groups and lists in one place all information on a particular question. A quick check of any one subject should turn up everything the inquirer needs to know about it, as far as his particular operation is concerned. All information listed should be current; obsolete material is deleted when supplemented by more accurate data or when found to be questionable. Items are entered in the work sheet with their:

1. Serial number (coordinated with the journal)
2. Time of occurrence
3. Source of the information
4. Extract of the item.

If one item confirms or contradicts another, a notation should be made near both entries to that effect, citing the journal serial number and the page and paragraph of the work sheet.

17.4.1.4 Intelligence Files. The intelligence files are a warehouse of collected information. They contain originals or transcriptions of all messages and documents passing through the intelligence office, including maps, charts, and orders. They are cataloged and cross-indexed for quick and full reference, using the United

States Intelligence Subject Code (ISC) as a guide. During periods of stabilization or inactivity, a good deal of information will be collected that is of no immediate value; but an item of only casual interest at one time may be precisely the fact needed later to focus an enemy capability or probable course of action.

It is exceedingly important that the intelligence files provide thorough coverage of the area of operations and of the potential enemy. When a mission is assigned, an inventory of the files and other quickly available information should provide enough knowledge of the enemy to make the original basic intelligence estimate. The journal and the work sheet may serve as aids or memoranda for the intelligence officer; but it is the intelligence files that contain the basic and complete data.

The staff intelligence officer is not always in a position to request detailed information from higher commands, nor should he expect them to anticipate all his needs. Consequently, each intelligence division must maintain, to the limit of space and authority, suitable and efficiently organized intelligence files to serve best the needs of the command. Each intelligence division shall use the U.S. ISC as a guide.

17.4.2 Evaluation. Once the intelligence officer, through recording, has established the order and priority of his material, he begins detailed evaluation to determine its truth and accuracy. He has two means of establishing the truth of his information: one based on the weight of credibility that can be given to the source, the other based on the conformity of the content with the rest of intelligence.

Evaluation requires a simple and informative means of grading credibility and truth. By this means, other intelligence officers can inform themselves at a glance of previous evaluations and proceed accordingly. Figure 17-3 provides the evaluation code for rating the reliability and accuracy of information in two independent categories, one by grading the degree of reliability of a source and the other

SOURCE	CONTENT
A COMPLETELY RELIABLE: NO QUESTION EXISTS AS TO AUTHENTICITY, TRUSTWORTHINESS, AND COMPETENCE	1 CONFIRMED BY OTHER SOURCES: FULLY COHERENT AND COMPATIBLE
B USUALLY RELIABLE: AUTHENTIC, BUT SOME QUESTION MAY EXIST AS TO TRUSTWORTHINESS OR COMPETENCE OR BOTH	2 PROBABLY TRUE: UNCONFIRMED, BUT COHERENT AND COMPATIBLE; OR CONFIRMED, BUT SOME DOUBT AS TO COHERENCE OR COMPATIBILITY
C FAIRLY RELIABLE: AUTHENTIC, BUT CONSIDERABLE DOUBT EXISTS AS TO TRUSTWORTHINESS OR COMPETENCE OR BOTH	3 POSSIBLY TRUE: COMPATIBLE, BUT SOMEWHAT CONTRADICTED BY OTHER REPORTS OR SOMEWHAT INCOHERENT
D NOT USUALLY RELIABLE: PAST EXPERIENCE LEAVES DOUBT AS TO AUTHENTICITY, TRUSTWORTHINESS, AND COMPETENCE; OCCASIONAL VALID REPORTS HAVE PROBABLY BEEN RECEIVED	4 DOUBTFULLY TRUE: NOT DECISIVELY CONTRADICTED, INCOHERENT, OR INCOMPATIBLE, BUT BELIEVED UNLIKELY
E UNRELIABLE: PREVIOUS REPORTS HAVE BEEN FALSE OR HAVE FAILED COMPLETELY ON TWO OR THREE TESTS; THE TREND OF FALSIFICATION MAY STILL BE OF VALUE	5 IMPROBABLE: CONTRADICTED BY OTHER REPORTS, INCOHERENT, AND INCOMPATIBLE (TO BE USED CAUTIOUSLY)
F RELIABILITY CANNOT BE JUDGED: USED WHERE SOURCE IS UNKNOWN; NO WAY OF DETERMINING AUTHENTICITY, TRUSTWORTHINESS, OR COMPETENCE	6 TRUTH CANNOT BE JUDGED: TO BE USED IN TRANSMITTING A REPORT WHICH DOES NOT CONCERN THE IMMEDIATE COMMAND AND WHICH CANNOT BE EVALUATED DUE TO LACK OF BACKGROUND

Figure 17-3. Evaluation Code

by grading the degree of accuracy of the content.

17.4.2.1 Reliability of Source. The intelligence officer's first step in evaluating information is to determine the degree to which he can believe the source. The three principal tests he applies are:

1. Authenticity — "Does the report come from the source it purports to come from?"
2. Trustworthiness — "Are the sources supplying the material of proven integrity?"
3. Competence — "Is the source a qualified observer of the matter reported?"

Alphabetic ratings are given for reliability of source. The reliability rating of "A" (completely reliable) is given to a source which meets these three tests beyond question. "B" (usually reliable) passes test 1, but leaves some doubt as to test 2 or 3. "C" (fairly reliable) still passes test 1, but leaves considerable doubt as to test 2 or 3 or both. "D" (not usually reliable) indicates that past experience of the source leaves doubt as to its qualifications on all three tests. "E" (unreliable) means that past reports from the source were completely untrue or deliberately falsified. "F" (reliability unknown) means that the source has not yet been tested or that tests or evaluations have been inconclusive to date.

A major consideration in evaluation of the source, although more difficult to estimate, is the purpose of the source. If the intelligence officer can ascertain the motivations behind the contribution of information, he has gone a long way toward establishing its reliability. A member of our forces, for example, has a stronger motivation to supply accurate information than does a prisoner of war.

Past performance should be carefully noted whenever possible. If the previous record of the source is good, the probability is that the source will continue to remain reliable;

although the evaluator should always be on the watch for deception.

The rating for reliability of source will inevitably have some influence on the rating for accuracy of content. Keep the two scales as independent as possible, however, so that two separate judgments can be made, further ensuring the validity of the evaluation.

17.4.2.2 Accuracy of Content. The intelligence officer's second step in evaluating information is to determine accuracy of content. The evaluation code for accuracy is more difficult to apply and depends to a certain extent on the intelligence officer's command of the whole body of intelligence received. The three principal tests he applies are:

1. Confirmation — "Is the item confirmed by information already at hand?"
2. Coherence — "Is the item consistent with the existing known situation?"
3. Compatibility — "Is the item congruous with the whole body of previously received intelligence?"

Note

Test "2" includes test "1" and test "3" includes tests "1" and "2"; the order of their application is a matter of increasing generality.

Numerical ratings are given for accuracy of content. They are independent of the alphabetic ratings for reliability. An improbable report can come from a very reliable source; or a report which is probably true can come from an unreliable source. Even unconfirmed items coming from a not usually reliable source may merit some measure of credence, if they fit in with the reasonable capabilities of the enemy.

1. Positive Ratings. A report that is confirmed by another independent source and is compatible with the rest of the intelligence

on hand may be rated as "1" (Positive). Care should be taken that the sources do not have a common origin for the information or that details of the information do not conflict. Where they do, only those parts of an item which do not contradict are considered as confirmed. Frequently, a confirmed item is automatically considered accurate, but the positive rating should be used sparingly.

2. Probable Ratings. If an item cannot be confirmed, but is very probable because of consonance with previously processed intelligence and general knowledge, it may be rated as "2" (Probable). When an item is partially confirmed, but doubt exists as to whether it fits in with the rest of our knowledge of the enemy, it may also be rated as "2".

3. Possible Ratings. An item is rated as "3" (Possible) when it has not been definitely contradicted and is compatible with existing intelligence. Such an item may be theoretically possible, according to our knowledge of the enemy, even though it is not entirely consistent with the operational situation or other items. Details of one item may be in conflict with details of another, but the essentials may be possible from what is already known.

4. Doubtful Ratings. A report that is inconsistent with enemy capabilities or the general enemy situation should be rated as "4" (Doubtful). The report in this case is not decisively contradicted by what is already known, but simply does not seem consistent with the situation.

Note

Treat possible or doubtful reports with great care, since they may have considerable value, regardless of their questioned veracity. The evaluator's efforts to confirm such reports may open new avenues of knowledge. These avenues may be

the first indications of a decisive enemy trend, or they may reveal deceptive measures, or they may lead the evaluator to suspect other items. Inconclusive as a possible or doubtful item may be, it should always be regarded as potentially informative.

5. Improbable Ratings. Items which are completely contradicted by other positive information are rated "5" (Improbable). Because of what we know, the report in question is impossible and should not be used. This rating should be used as sparingly as "1" (Positive). An improbable rating should not be confused with the term negative intelligence — the absence of significant indications — which is frequently valuable as an indication of enemy intentions or capabilities.

6. Unevaluated or Inapplicable Information. When, for whatever reason, information cannot be evaluated by the echelon which received it, the symbol "6" is used to indicate that no evaluation was possible. This designation may be used for information which does not concern the command and which is transmitted as information to a higher echelon, but only when the intelligence officer has no related data.

17.4.3 Analysis. After the intelligence officer has established the worth of the information, he must, through his evaluation tests, analyze the item from the viewpoint of meaning. He should ask himself such questions as:

1. "What does the item indicate?"
2. "What does it tell us of the enemy?"
3. "Granted that it is true, what will be its effect?"
4. "Is it probable that the enemy is aware that this information has been obtained by us and, if so, is he likely to make any

changes in his plans or selection of courses of action?"

Sometimes the significance is obvious: a flight of enemy bombers will usually be aiming at only a limited number of possible targets or the movements of enemy barges may indicate the reinforcement of one particular position only. More frequently, however, several alternatives will be possible. The disposition of our forces, the characteristics of the area, and the enemy situation may all affect the inference to be drawn from any one item of information. The appearance of enemy tankers may mean the refueling of an enemy task force at sea or it may be a sign of the resupply of an enemy base in preparation for an offensive, depending upon other factors in the situation at the time. The intelligence officer should always place himself in the role of the enemy commander (1) to calculate properly the courses open to the enemy and (2) to draw accurate conclusions about any one particular item in reference to the whole set of enemy capabilities.

Most items of information have a first and a second meaning. The first meaning concerns the items alone. The flight of bombers means that the enemy is after certain targets. The movements of barges mean that the enemy is intent on reinforcement. But for what purpose?

The bomber flight may indicate an attempt to destroy our force or it may mean that the enemy is bent on harassing and possibly delaying our projected operation until he can bring his own surface force to bear. The movements of barges may indicate enemy intent to attack when he has sufficient strength or they may mean that the enemy is going to dig in and defend his present position indefinitely. These second meanings — the purposes for which particular actions are undertaken — have infinite possibilities, unless the intelligence officer trims them down, basing his judgment on a knowledge of the enemy situation as well as his own. What the enemy is doing 2,000 miles away may have as much bearing on the

operation as what he is doing 2,000 yards away.

Second meanings sharpen our estimate of enemy capabilities and pinpoint the relative order of probability. The intelligence officer, whenever he is able to deduce second meanings from the context of the enemy situation, should note both his conclusions and the facts and assumptions on which his conclusions are based. Assumptions are as carefully annotated as facts; but they must be clearly indicated as assumptions and must never appear as actualities.

17.4.4 Interpretation. Second meanings of information lead quite naturally into the interpretation step of intelligence processing — the most important step in the formulation of the enemy capabilities portion of the estimate of the situation. Operations and intelligence officers should develop jointly answers to such questions as:

1. "What does this intelligence mean to us in the light of our own contemplated courses of action?"
2. "How does it affect us?"

Interpretation of evaluated intelligence requires a determination of (1) its exact relation to existing intelligence and (2) its effect upon existing conditions. As each new item is evaluated, analyzed, and interpreted, the intelligence officer's view of the enemy should be altered or confirmed in some degree. He will discover new enemy capabilities and discard old ones. The relative probability of enemy capabilities will become clearer and enemy aims more apparent. These changes will be noted in the current estimates and should, as our knowledge grows, reduce the number of alternatives open to the enemy.

The interpretation of intelligence may be a continual process, covering days or weeks of collection and processing; or it may be, as is frequently the case with enemy contact reports, an almost instantaneous judgment. Whatever

the length of time required, the accurate interpretation of information demands of the intelligence officer the most complete appreciation of (1) the enemy's strength and disposition and (2) the permanent or temporary factors which determine enemy capabilities.

17.5 DISSEMINATION

17.5.1 Criteria. If the whole process of turning information into intelligence is to have any point, it must be backed by an effective dissemination plan. The intelligence officer has a knowledge of the enemy that is needed quickly by the operating forces, other planners, and other command echelons. But, because of the process to which it has been subjected, it may be overspecialized and technically phrased. He must now organize it for clarity and ease of communication, without sacrificing any of the criteria of good dissemination:

1. Intelligence must be placed in the hands of the ultimate user in time to permit his formulation of plans and his initiation of action under the existing situation, before the intelligence picture has changed.
2. Only essential intelligence that can be used by the unit concerned should be sent out.
3. Communications must be secure, within the limits of timeliness and importance.
4. Disseminated matter should be in usable form.

17.5.2 Documentation. The routine methods of disseminating intelligence are by oral briefings and by issuance of intelligence documents. The variety of types of intelligence documents are reviewed below:

1. Photo interpretation reports identify enemy activities and installations. They are the most reliable source of current information on terrain under the enemy's control.

2. Captured documents, in translation, if proven to be valid, may furnish accurate and valuable information, inasmuch as they were written by the enemy for his own use. Often they reveal definite enemy plans, orders, or results of operations.

3. The intelligence annex of the operation plan summarizes the enemy situation up to the date of promulgation of the operation plan. It is a further means for reaching all recipients and arranging the whole intelligence picture.

4. The intelligence estimate is presented primarily for the use of the commander in making his decisions. Running estimates keep the commander and other staff officers informed of the progress of the enemy situation.

5. Intelligence summaries (IntSums) compile pertinent intelligence for the echelon requesting it. Prior to an operation or at other appropriate times, higher echelons may publish an intelligence summary in one or more volumes containing a detailed resume of all available intelligence. Tactical units use intelligence summaries as brief consolidated reports of intelligence facts previously sent out during a prescribed period. On higher levels, intelligence summaries sometimes review intelligence in a more encompassing form than the periodic intelligence report.

6. Order of battle books and pamphlets contain the designations, identifications, strength and composition of units, and data on the personalities and histories of commanders.

7. The periodic intelligence report (PIR) sums up the intelligence processed during a given period. It is a convenient means for keeping higher, lower, and collateral units informed of the enemy situation, enemy capabilities, and conclusions within the

cognizance of the headquarters preparing the report. Information originally disseminated by special message or other rapid means is frequently included and expanded in the PIR to present a full picture and to ensure complete distribution. Reports which give details on the enemy's disposition of forces or capabilities should include significant changes or trends.

8. Prisoner of war interrogation reports detail the intelligence gained from interrogation of POWs, which is frequently of great value.

9. Situation plots and overlays depict the location and disposition of enemy forces and installations. They lend themselves to rapid interpretation and dissemination of intelligence. Special plots are used for dissemination whenever the enemy situation changes rapidly.

10. Special reports covering items of immediate concern should be transmitted to commands by the most rapid means.

11. Tactical studies of weather and terrain furnish detailed information on climate and weather, hydrography, drainage, relief, soil, vegetation, and lines of communication. They are used as a supplement to maps and

plots. Weather information is also disseminated by radio reports and bulletins.

12. Technical intelligence summaries offer a complete resume of such subjects as enemy weapons, equipment, and technical methods. They are used mostly by interested specialists.

13. Information reports contain data on a particular subject collected by own sources and forwarded unprocessed to higher echelons, including the Office of Naval Intelligence (ONI).

The type of intelligence document chosen depends to a large extent on the purpose of the dissemination and the kind of material presented. Since the time element may be a factor, selection of the means of preparation should be guided by the urgency of the need for the content. Drafting, cartographic reproduction, typing, proofreading, and the other details of publishing should be carefully considered in the dissemination plan and schedules realistically set and closely adhered to. The ultimate use of intelligence is to assist (1) the commander in making sound and timely decisions and (2) other staff members in the execution of their missions. Reliable intelligence forewarns; a warning received too late is as useless as no warning at all.

CHAPTER 18

The Intelligence Estimate

18.1 GENERAL

The intelligence estimate of the situation is usually referred to simply as the intelligence estimate. It may be prepared in many forms and at any level and may be presented to the commander formally or informally, in writing or verbally, and in detail or summarized. The scope of the intelligence estimate may be sufficiently great to cover the entire situation of a large area or so narrow as to present only the factors that concern a special operation or a series of related operations.

In combat operations, the various forms of intelligence estimates run from the simple intelligence briefing, given to personnel about to undertake a bombing mission, beach reconnaissance, or scouting patrol, to the elaborate presentation of detailed data given to an area commander, whose assigned mission is the neutralization of the enemy's industrial potential and the destruction of his military forces.

Because sufficient time is available during the planning phase of an operation, the intelligence estimate should be a written document. Since, for large operations, the intelligence officer has such a vast amount of material, the estimate is usually written so that all necessary material is presented to the commander in a clear and concise form.

Continuing intelligence estimates, made as the operation progresses, are generally called for on short notice. They are usually based on small amounts of new material and may be presented orally, possibly supported by a situation map and some notes. However, these changes must be incorporated into the basic estimate as soon as time permits.

The requirements at each level of command determine the scope, form, and substance of the intelligence estimate. These requirements are based on consideration of the following:

1. Purpose for which the estimate is made
2. Ultimate uses of the estimate
3. Degree of guidance in the estimate required by subordinate and adjacent commands
4. Desires of the commander whose intelligence staff division prepared the estimate.

Since the requirements differ, there also are differences in the types of intelligence estimates prepared at various levels — from the national Joint Chiefs of Staff and Department of the Navy levels to the force commander level.

The intelligence estimate prepared for a force commander is specifically intended to provide the commander and his subordinates with a basis for planning the conduct of military operations.

18.1.1 Responsibility for the Intelligence Estimate. The intelligence estimate is prepared by the intelligence officer. It should assist the commander in making sound and timely decisions by providing needed information on the enemy situation. It should also help other staff members in preparing plans for their own areas of responsibility.

The intelligence estimate is furnished the commander by the intelligence officer, either upon his own initiative, when warranted by developments in the situation, or when required

by the commander. It summarizes the enemy situation and capabilities.

Because intelligence estimation is a continuing process, the duties of the intelligence officer do not end with writing the initial estimate. As factors change, the estimate must be revised. The intelligence officer can usually anticipate the need for an estimate or an update; in any case, he must be prepared to furnish it to his commander when required.

18.2 PURPOSE OF THE INTELLIGENCE ESTIMATE

The intelligence estimate is designed to bring together significant information regarding the area of operations and the enemy situation, present the enemy's capabilities, analyze them in relation to one another, and consider each capability in relation to the friendly mission. With the intelligence estimate, the commander can balance enemy capabilities against his own courses of action and choose his own most favorable course of action.

18.2.1 Primary Purpose. The primary purpose of the intelligence estimate is to determine the courses of action open to the enemy or potential enemy and the probable order of their adoption.

18.2.2 Secondary Purposes. The secondary purposes of the intelligence estimate are:

1. To disseminate information and intelligence on the possible area of operations and the enemy military situation to the commander, the staff, and interested superior, subordinate, and adjacent commands
2. To disseminate to intelligence officers of subordinate commands the intelligence officer's assessment of the identification, strength, and disposition of enemy forces that might be employed against each subordinate command

3. To determine the essential elements of information (EEIs) concerning the possible area of operations and enemy forces, which must be collected prior to or during operations.

18.2.3 Relationship to the Commander's Estimate. There is a close relationship between the commander's estimate and the intelligence estimate. In the sequence of the planning process, the staff members write their specialized estimates and submit them to their commander. He, in turn, prepares his commander's estimate, which culminates in his decision.

Like the intelligence estimate, the commander's estimate may or may not be a formal written document. However, if it is written, both estimates are interrelated:

1. Paragraph 2 of the commander's estimate, **THE SITUATION AND COURSES OF ACTION**, comes largely from paragraphs 2 and 3 of the intelligence estimate, **ENEMY SITUATION** and **ENEMY CAPABILITIES**. These paragraphs normally can be lifted verbatim and inserted into the applicable portions of the commander's estimate.
2. Most of paragraph 4 of the intelligence estimate, **ANALYSIS OF ENEMY CAPABILITIES**, is integrated into paragraph 3 of the commander's estimate, **ANALYSIS OF OPPOSING COURSES OF ACTION**.

18.3 SCOPE OF THE INTELLIGENCE ESTIMATE

In form and scope, the intelligence estimate is mainly designed to satisfy the primary purpose of determining enemy capabilities against the command that prepares the estimate. In relation to its primary purpose, the intelligence estimate serves as an initial and essential step in the process by which the commander evaluates and compares the enemy and friendly situations, decides upon a course of action in light of

these situations, and plans the conduct of the course of action.

The intelligence estimate serves its secondary purposes only in a limited way. The estimate can never include all the information and intelligence required by other staff divisions and subordinate commands. Such an estimate would be too lengthy and unwieldy. Nor can it always provide an adequate basis for determining all the essential elements of information (EEIs). These often are not determined until the commander's estimate of the situation or perhaps the operation plan is in preparation.

It is essential during preparation of the intelligence estimate that its form, scope, and content be geared to its primary purpose. There are other intelligence media for accomplishing the secondary purposes. In preparing an estimate, if there is difficulty and conflict in satisfying both primary and secondary purposes, give overriding consideration to the primary purpose — determining enemy capabilities.

The intelligence estimating process is closely linked to intelligence collection. Usually, in preparing the estimate, there will be noticeable gaps in knowledge of the enemy, especially in the initial stages. This is not surprising since the enemy has an extensive security program designed to prevent disclosure of information concerning his own forces. To fill the gaps in knowledge, the intelligence officer sets down questions (EEIs) to be answered by intelligence collectors. The answers may cause him to revise the intelligence estimate; the revision, in turn, may lead to a new series of questions. Preparation of the intelligence estimate thus involves the intelligence officer in a continuing cycle of estimating, collecting, and revising.

18.3.1 Continuing Intelligence Estimate. The commander must know immediately of any significant changes in enemy capabilities. To keep him apprised of such changes, the intelligence officer must maintain in current status a continuing intelligence estimate. This

updating — sometimes called a "running intelligence estimate" — continually recomputes enemy strength, reappraises the enemy situation, and provides new analyses of enemy capabilities. Outdated and irrelevant intelligence is eliminated and appropriate new material is added. Whenever there is new intelligence that bears on the capability of the enemy to affect the commander's planned operation, there is a probable need to revise the intelligence estimate.

The continuing estimate has the same function as the basic estimate: it analyzes enemy capabilities. Occasionally, it may be concerned with the overall enemy situation, but usually it reveals the need for a specific friendly action caused by a specific new enemy circumstance.

The continuing estimate is usually contained in a loose-leaf binder so that new material can be quickly and easily inserted without destroying the entire document. It must allow for the fact that new intelligence is constantly being obtained and that operations are continually changing. Maximum use is made of overlays, plots, and short summaries, because these media increase the flexibility of the estimate and make it easier to revise.

Accuracy regarding the most probable enemy courses of action is particularly important in the continuing intelligence estimate, since it can have an immediate effect on our own tactics. Occasionally, it produces intelligence of so drastic a nature as to change completely the commander's decision. In this circumstance, the continuing estimate becomes a valuable base for a new, formal, intelligence estimate of the situation.

18.3.2 Use of the Intelligence Estimate in Long-Range (Future) Planning. Current intelligence of the enemy situation and enemy capabilities is required for the intelligence estimate and the commander's estimate. But what are the implications when planning for an operation to take place many months in the future?

Under such conditions, paragraph 2, ENEMY SITUATION, should be prepared in such a way that it will depict conditions as of the date of the future operation. (In a sense, any intelligence estimate covers a future situation, but going beyond the "immediate future" introduces an added consideration into the planning process.) For example: A high-level headquarters prepares a plan that lists phased operations to be conducted during the next 2 years. Subordinate commands under that headquarters must prepare their plans. Among the plans is one for Phase III of the plan, scheduled for 18 months after issue of the plan. To prepare their plans, the subordinate commands each use the planning process sequence: enemy capabilities, commander's estimate (decision), and plan. In this process, assume that an intelligence estimate has been made by a subordinate command, using the current situation, and that the commander has used that estimate in the conventional manner to figure enemy capabilities.

What are the consequences? The enemy capabilities in the commander's estimate reflect the enemy situation at the time the estimate was prepared. They are not necessarily enemy capabilities for Phase III, some 18 months in the future. If the enemy situation changes appreciably, enemy capabilities will change accordingly. This is an unsatisfactory situation for the commander, since he does not have adequate information for a sound decision based on the changed enemy capabilities. In this circumstance, the commander should have an intelligence estimate that develops a "future" enemy situation — one that reflects, as nearly as possible, the situation as it will exist in Phase III.

18.3.2.1 Use of Assumptions. How can the enemy situation 18 months in the future be developed? Only by the use of assumptions. These assumptions, used to bridge gaps in knowledge, must be as reasonable and realistic as possible. They should be held to a minimum and include only the assumptions that are absolutely essential to the estimate, for an

estimate loses its usefulness if it is based on a long list of assumptions that cover every conceivable contingency.

The assumptions should be drawn up only after full consideration of all factors that could have some bearing on their validity. It is desirable that the assumptions have the concurrence of the N-2 and the N-3. They must have the approval of the commander. (Assumption is used here in the broadest sense and the single word encompasses a complex process. For example, in formulating assumptions, national and joint intelligence estimates provide a basis for developing an estimate projected 2 years into the future.)

18.3.2.2 Types of Essential Assumptions.

The types of assumptions that are essential concern the assumed results of friendly operations in previous phases and the effect these operations will have had on the enemy situation. Examples of such assumptions are:

1. "Air and naval superiority in the area of responsibility has been established and will be maintained."
2. "Pressure on other fronts will prevent substantial enemy withdrawals or reinforcements to or from other areas."
3. "The enemy nuclear weapon stockpile and production level is such that his nuclear warfare potential is 50 percent of that held at the beginning of hostilities."
4. "Neither side will resort to chemical, biological, or radiological warfare."
5. "Though the enemy's war-making potential has been seriously reduced and his lines of communication disrupted in many areas, he is still capable of maintaining 65 percent of his original strength, equipment, and material for his ground, naval, and air forces opposing our forces."

6. "Friendly operations will have reduced enemy naval combat strength by 20 percent and air force strength by 25 percent."

7. "Enemy naval forces must operate from bases over 1,000 miles from the area of Phase III operations."

8. "Enemy exercise of governmental functions in the Phase III area of operations will be characterized by an increasing dependence of the central government on the independent emergency functioning and decisions of local area political chieftains and a resulting drastic decrease in the currently strong centralized governmental control of those areas."

18.3.2.3 Application of Assumptions. After the assumptions have been refined and approved, they should be applied against the current intelligence estimate. This is the most important step in formulating a short-range estimate. The purpose in applying the assumptions to the current estimate is to determine what important changes will develop. In effect, the short-range estimate deals in the main with, and places emphasis on, these changes. It will therefore not be as complete or detailed as an estimate of the current situation, which may be regarded as a companion document to be referred to for details not repeated in the short-range estimate.

18.3.2.4 Form and Content. In the main, the content and form for the short-range estimate follow that of the intelligence estimate, with two principal exceptions:

1. The assumptions should be stated after the mission (relative to the future operation).
2. The discussion of those factors included under Characteristics of the Area of Operations, Enemy Military Situation, and Enemy Unconventional and Psychological Warfare Situation will treat only the important changes that can be expected to develop.

18.3.2.5 Other Methods of Using Intelligence Assumptions. The preceding paragraphs described one means of using assumptions for intelligence estimating: taking into account changes in the enemy situation during the period between the initiation of planning and the initiation of the operation. The assumptions, developed by the coordinated effort of the N-2 and the N-3, must be approved by the commander.

There are two other methods of using approved assumptions in the planning process:

1. They can be disseminated to all staff divisions, which then apply them to the staff estimate for which each division is responsible.
2. They can be included only in the commander's estimate of the situation, along with the other assumptions made by the commander.

18.4 PREPARATION OF THE INTELLIGENCE ESTIMATE

This paragraph provides a detailed discussion of the contents of each paragraph of the written intelligence estimate. The format is shown in Figure D-1 of Appendix D.

18.4.1 Heading and Ending. The heading and ending are important parts of a written estimate because they tell when and where the estimate was prepared, its classification, and its author. (For an oral estimate, such information is automatically supplied by the circumstances which exist at the time the estimate is given.)

The heading includes the name of the office preparing the estimate, the headquarters in which the estimate is prepared, the name of the place (or APO/FPO number) where the headquarters is located, and a date-time group with the name of the month spelled completely.

Note

The hour might not be included in the date-time group, if termination of the estimating process cannot be determined precisely or is considered unimportant. However, the date is always important, because it indicates to the reader the day the estimating process ceased (the estimator can always determine the day).

The date is followed by the title, **INTELLIGENCE ESTIMATE**, and its numerical designation. Next, all the charts necessary for an understanding of the situation described in the estimate are listed. Include enough information about each chart to identify it, so that others using the estimate can procure the correct charts, and include the scale of each chart. Include the number and designation of each pertinent photograph, special chart, etc., used in the estimating process and needed for a complete understanding of the estimate.

18.4.2 Mission Paragraph. In preparing an intelligence estimate, it is necessary to proceed step by step in an orderly and logical fashion. In paragraph 1, **MISSION**, state the mission concisely (either the one directed by higher authority or the one deduced by the commander). Since the principal purpose of the intelligence estimate is to determine the enemy capabilities that the commander will use in his estimate of the situation, the repetition of the mission here serves to focus attention on it and show the relationship of the remainder of the estimate to the mission.

The mission is placed in the estimate to ensure that the officer preparing the estimate and the reader both understand the mission for which the estimate was prepared and the problem confronting the command at the time it was prepared. If the intelligence officer does not have the mission correctly and firmly in mind when he prepares his estimate, he may

obtain a wonderful solution to the wrong problem.

If the mission involves the accomplishment of several tasks, all are stated. If priorities have been assigned, they are indicated. If the reasons for the assignment of the mission to the command are known, they are also indicated.

18.4.3 Enemy Situation Paragraph. In paragraph 2, **ENEMY SITUATION**, the intelligence officer (N-2) describes and discusses the enemy situation under three main subheadings: Characteristics of the Area of Operations, Enemy Military Situation, and Enemy Unconventional and Psychological Warfare Situation. The N-2 must consider the amount of information available to him and whether the factor under consideration is important enough to the commander to require detailed treatment.

The degree of detail included in the intelligence estimate depends on the operating situation in which it is written. When a staff has been working together for a considerable length of time in an operating situation, its members normally know quite a bit about the current enemy situation as a result of staff meetings, conferences, daily intelligence briefings, weekly intelligence summaries, and other intelligence dissemination devices used in the headquarters. When this situation exists, the intelligence officer need not include extensive detail in his intelligence estimate to bring the staff up to date. For example, if a command has been operating against MiG-21s for 6 to 8 months and their characteristics are known to the staff, it should not be necessary to include those characteristics in the intelligence estimate. On the other hand, when the staff is newly organized, has many new members and a new commander, or when the situation has undergone a great change, more detail is usually necessary.

The estimate should include under **ENEMY SITUATION** all of the data used later in **ANALYSIS OF ENEMY CAPABILITIES**. A full list of pertinent facts must be made in

order that a solution to the problem may be developed. Sufficient data must be presented to indicate all general capabilities of the enemy to affect our mission. However, if it is obvious, when listing facts in ENEMY SITUATION, that these same facts must be repeated in detail in the ANALYSIS OF ENEMY CAPABILITIES, which follows, and if exclusion of these facts does not eliminate certain capabilities, then it is permissible to place them in the analysis paragraph rather than in the situation paragraph. In this way, conciseness is aided and clarity is not sacrificed. But as a general rule, no new intelligence is inserted after ENEMY SITUATION.

18.4.3.1 Characteristics of the Area of Operations. Describe in this paragraph each significant characteristic of the area of operations as it is expected to exist during the conduct of operations and include the effects of each characteristic on possible enemy operations and on the mission of the friendly command.

Determination of characteristics to be included in the estimate is based on consideration of the purpose of the estimate and the degree to which the characteristic will affect enemy capabilities or the friendly mission.

If a purpose of the estimate is to disseminate intelligence on the area of operations (only a secondary purpose), certain characteristics may be included, even though they will have no effect on enemy capabilities or the friendly mission. If the only purpose is to derive enemy capabilities, characteristics that will have no effect are listed, but are followed by a short negative statement, such as: "Hydrography. No effect on enemy capabilities or the friendly mission." Normally, only those characteristics that will affect enemy capabilities or the friendly mission are discussed in detail.

Other factors to be considered are: Is the particular characteristic pertinent? Does it exist in the area of operations? For example, there is no requirement for including a discussion of

sociology, if the area of operations has no inhabitants. In this case, "Sociology" would be listed, followed by the short statement, "Not applicable." But sociology may be a characteristic of vital importance, if the area of operations is densely populated. Similarly, hydrography and landing beaches would be important in a situation in which ground forces face an amphibious landing.

The extent of the discussion of any particular characteristic depends primarily upon the degree to which that characteristic is expected to affect enemy capabilities or the friendly mission. For instance, climate and weather always affect enemy capabilities and the friendly mission. In an Arctic region or in a tropical zone, their effects may be critical; they would therefore receive considerable attention and space in the estimate. In a temperate area, in which their effects may be much less important, they would receive less attention in the estimate.

Each topic discussed under Characteristics of the Area of Operations will include three sections in the following order:

1. Existing situation
2. Effect on enemy capabilities
3. Effect on friendly courses of action.

If appropriate, include also a discussion of the effects of the characteristic (e.g., mountainous terrain) upon the employment of nuclear, chemical, and biological weapons.

Discussion of the effects of each characteristic on possible enemy operations normally includes consideration of the effects on the enemy's ability to attack, defend, and withdraw. It may also include consideration of other possible operations and of his possible employment of particular weapons, methods, techniques, or forces.

The extent of the discussion of the effects of each characteristic on the friendly mission is limited by the nature of the mission. Thus, when the mission is offensive, the discussion does not include the effects of the characteristic on the friendly defense.

Avoid lengthy discussion, if possible. Make maximum use of maps, charts, graphics, and pictorial presentations. To prevent undue bulk and in the interest of brevity, it may be advisable in certain instances to summarize the main points of the situation for inclusion in paragraph 2 and include detailed studies as addenda to the intelligence estimate.

Brevity can also be obtained when finalizing the estimate by eliminating duplication of analyses. Frequently, an extensive analysis in paragraph 2, ENEMY SITUATION, is repeated in paragraph 4, ANALYSIS OF ENEMY CAPABILITIES. One of the two can be a brief of the other.

(1) *Military Geography.* Terrain features or other factors of military geography in the area of operations almost certainly will affect accomplishment of the mission; therefore, the estimate should describe them. If this portion of the estimate is bulky, it may be treated separately and attached as an appendix.

When other staff members require geographic studies of friendly territory, the intelligence officer should prepare or obtain them. But he should present them to the staff in a form other than the intelligence estimate, partly because the estimate is a study of enemy territory and partly because the form of the estimate is not suitable for terrain studies.

(a) *Topography.* Include all possible information concerning the military characteristics of the area, such as critical terrain features, obstacles, avenues of approach, rivers, streams, lakes, and any other natural or manmade features which may have an effect on military operations within the area. Specific mention

should be made of the effects on the employment of nuclear and CB weapons.

(b) *Hydrography.* This is an important subject in any contemplated naval operation. Discuss such items as currents, ice conditions, sonar conditions, submarine listening performance, and human survival in the water. For an amphibious assault, include such items as general relief of beaches, beach approaches and surf conditions, tides and inshore currents, navigational aids, identifying features, channels, water depth, rocks and shoals, obstacles (both natural and manmade), anchorages, beach trafficability, compartmentation, effects on employment of supporting arms and logistics, and coastline and contiguous islands.

(c) *Climate and Weather.* Describe these elements as they affect enemy capabilities and friendly courses of action. Complete coverage is given to temperature, precipitation, icing conditions, cloud cover, visibility, winds, storms, daylight and darkness, and phases of the moon. Specific mention should be made of weather effects on employment of nuclear and CB weapons.

Weather is defined as the condition of the atmosphere at a given place or in a region; it can be stated factually. When day-to-day intelligence estimates are being prepared, a weather forecast fits readily under ENEMY SITUATION. If the estimate is for a single operation, summarize weather only for the period of the mission.

For estimates that cover a general situation over a long period of time, a long-range forecast may be used, based on a general climatology study of the enemy area for the past year. Climate is defined as the statistical collection of individual conditions of weather and climatic intelligence and the scientific analysis of climate for determining its useful application to intelligence. This intelligence is not factual in the same sense as a weather forecast. It is general and broad in scope and is not as objectively applied.

Climatic intelligence belongs under ENEMY SITUATION, but because of its general and bulky nature, it requires more space in the estimate than is justified in comparison with elements of equal importance. For balance in treatment among various elements, it is desirable to place climatic intelligence in an appendix of the estimate.

A weather officer is usually not assigned to the intelligence staff, so the intelligence officer must go to the staff meteorologist for this information. Meteorologists can be assigned to any level of command.

(2) *Transportation.* Describe all forms of civil transportation, including roads, railways, airways, pipelines, and inland waterways. Treat the following as necessary: capacities, surface conditions of rolling stock, motor and air transport, barges, freighters, and other inland waterway craft. Discuss vulnerabilities in as much detail as necessary to present a clear picture.

(3) *Telecommunications.* Describe the availability and condition of existing telecommunications systems and equipment, both military and civil. Indicate critical shortages and sensitive bottlenecks.

(4) *Politics.* Discuss the political, economic, sociological, and scientific and technical topics (subparagraphs (4) through (7)), if they have a bearing on enemy capabilities or on the friendly mission. Generally, information on these subjects is provided by higher authority. In this subparagraph, include the political organization of the area, the extent of civil and military control of the region, the amenability of the civilian population to political control, the political organizations, and the key political figures.

(5) *Economics.* Area economics is included only to the extent demanded by the operation to be conducted. Certain types of information will be invaluable to the command. Discuss

resources and facilities in the area that are available to the enemy or that may be available to friendly forces when occupying or passing through the area. Also indicate the lack of any specific economic resources which may be necessary for the conduct of the operation.

(6) *Sociology.* This topic deals with the people of the area; their psychology, social customs, characteristics, and religions; the minority or dissident groups; allegiance to either the enemy or friendly forces; and other items that indicate military government requirements, the necessity for troop indoctrination, and so on.

(7) *Science and Technology.* These topics are discussed to provide a basis for comparison of weapons and equipment and to consider the possibility of the enemy's employment of new weapons, equipment, and techniques during the course of the operation.

18.4.3.2 Enemy Military Situation. Describe in this paragraph the enemy's military and paramilitary forces, facilities, and equipment and indicate their particular strengths and weaknesses.

(1) *Strength.* This subparagraph may be combined with the one following. Include a statement of the combat strength of enemy forces in terms of vessels and aircraft. Remarks on the state of training and morale may be included, although these two factors are more appropriately discussed under Significant Strengths and Weaknesses.

(2) *Composition.* Include the identification (when known) of all enemy units that may affect enemy capabilities and the accomplishment of the friendly mission. Include a summary of the enemy's surface force guns, surface-to-air missiles (SAMs), and anti-aircraft guns. In discussing composition of enemy forces, give only a summary of the enemy order of battle. If enemy air defenses are of paramount importance to our mission, fighter interceptors may be listed along with anti-aircraft guns, etc., and a notation made in the enemy air order of

battle summary that the interceptors are listed with other air defense weapons.

(3) *Location and Disposition.* The location and disposition of the enemy's forces, facilities, and logistic installations can best be shown on a map or overlay, with a brief written description of those matters not subject to visual portrayal. To help understand enemy capabilities, indicate pertinent information on the overlay regarding enemy order of battle and disposition of forces. Include the known and suspected locations of enemy SAM and surface-to-surface missile (SSM) sites, with a summary of missile types and control systems.

Knowledge of the disposition of relatively strong and weak enemy units may be the basis for decisions on employment of our own offensive and defensive forces. This knowledge also may indicate enemy capabilities for future moves. For example, the movement into an area of highly efficient logistics units, while another sector receives less well-trained units of the same category, might indicate enemy plans for an offensive in the first area.

Air defenses are relatively impotent without the coordination of early warning and control radar; therefore, a complete intelligence estimate will contain known or probable sites and platforms, with a summary of probable characteristics and employment.

Sometimes the communication staff's estimate will contain the enemy electronic situation, if the mission statement has indicated to the communications officer that he needs to include this information in his estimate. This information should also be included in the intelligence estimate.

(4) *Availability of Reinforcements.* Compile a list of all known reinforcements available to the enemy. Exercise care in its preparation to ensure that the problem is approached realistically. The enemy cannot be expected to abandon his effort in one area just to provide reinforcements in another. It is expected that

friendly forces will continue to exert pressure on all areas in order to prevent such an enemy move.

(5) *Movements and Activities.* Provide a description of all significant enemy movements that may affect the friendly mission and enemy capabilities. Include those activities that may give some clue to the relative priority of adoption of enemy capabilities.

(6) *Logistics.* Of particular importance in the estimate is the discussion of the enemy's logistic situation and the description of his air and naval facilities. They are essential factors in considering the enemy's ability to maintain his naval forces, aircraft, and ground forces. Availability of air facilities will control disposition of his air forces; availability of naval facilities will determine his capability of supporting naval forces.

In this portion of the estimate, describe all elements of the enemy's logistic system, transportation, storage, distribution, levels of supply, critical shortages, and bottlenecks. Also discuss such items as fuel storage, repair facilities, runways, port facilities, etc., as they may affect enemy capabilities.

(7) *Operational Capability to Launch Missiles.* Include numbers and types of missiles, guidance systems, ranges, types of warheads, and types of launching sites (if fixed, whether hardened or not). For mobile launchers, indicate mobility, rate of fire, and readiness time; for other than land launch, state whether air, surface, or submarine launch is the capability. If kill effectiveness has been estimated, include it also.

(8) *Serviceability and Operational Rates of Aircraft.* It is important to express the rate in terms of sorties per type of aircraft per stated period of time. For example: "500 fighter-bomber sorties per day in the initial period, or 300 medium-bomber sorties per day for an indefinite period." The serviceability rate is the percentage of TOE aircraft that the enemy is

capable of maintaining in operation for a specific period of time.

Estimates on the serviceability factor may come from information obtained from a number of different sources. A detailed study of photographs of enemy airfields, may provide the number of partially disassembled aircraft, indications of movement of aircraft on the ground from day to day, and signs that maintenance is being performed. Valuable information may be derived from questioning prisoners of war from enemy air units. Reports dealing with enemy reactions to missions by our forces against critical enemy targets may indicate the approximate number of defenders available for a maximum strength interception. Friendly radar that ranges into enemy territory may give valuable information on the strength and activity at airfields within their coverage.

If information is not available from such sources, the intelligence officer may relate to enemy units the experience of friendly units with aircraft of generally similar types. Probably no other air force surpasses our in-commission status for aircraft. Applying these averages to enemy air forces will give them the benefit of the doubt, but ensures that the estimate is conservative.

(9) Operational Capabilities of Combatant Vessels. Discuss in terms of type of vessel, modernness or obsolescence, armament, fire control systems, armor, speeds and cruising radii, underway replenishment, number of vessels on station, aircraft warning and control systems, naval aviation cover or protection, and state of training and morale of crews.

(10) Technical Characteristics of Equipment. Discuss the technical aspects of weapons, weapon systems, and equipment that are different from those of friendly forces; clearly state the superiority and inferiority of the characteristics.

(11) Electronics Intelligence. Describe the enemy's electronic and counter-electronic

potentials; concentrate on his electronic equipment and his methods of employing electronic countermeasures.

(12) Nuclear, Chemical, and Biological Weapons. Discuss the enemy's nuclear, chemical, and biological weapons, if the information is available, in terms of type, yield, number, method of delivery, and enemy doctrine for use.

(13) Significant Strengths and Weaknesses. The discussion of significant strengths and weaknesses should provide the material which, on analysis, may disclose specific enemy vulnerabilities. It should also describe any other peculiarities of the enemy situation that are not properly presented elsewhere in the intelligence estimate and that may influence the commander's choice of a course of action. The source of information for significant strengths and weaknesses is the discussion portion of each topic under Enemy Military Situation.

Information on the relative efficiency of combat units facing a commander is of critical importance to him. It would be particularly significant in a large area of operations and where enemy units vary widely in effectiveness. There is no established method for deriving the relative efficiency factor. When it is desirable to estimate enemy effectiveness and a sufficient quantity of intelligence information is available, any method may be used that results in a simple comparison of enemy units. For example, in estimating the enemy's air capabilities, the number of assigned enemy aircraft in commission would be more significant than the number of enemy aircraft indicated by the table of organization.

18.4.3.3 Enemy Unconventional and Psychological Warfare Situation

(1) Guerrilla. This discussion covers the enemy's experience in, and ability to organize and conduct, guerrilla warfare against friendly areas and areas newly seized from the enemy.

Include details on his methods of organization, control, and support of guerrilla forces; information concerning the likelihood of the native population's participation in the enemy's guerrilla movement; and a discussion of the areas most sensitive to guerrilla warfare.

(2) *Psychological*. The discussion of psychological warfare includes enemy methods and facilities for the conduct of propaganda, the susceptibility of the population of the target area, and the major or main line of the enemy's psychological warfare effort.

(3) *Subversion*. The treatment of the enemy's subversive warfare effort includes a study of the susceptibility of the native population to subversion, likely targets among civilian and military personnel, methods employed by the enemy, and his successes and failures, with the reasons therefor.

(4) *Sabotage*. The description of the enemy's sabotage effort includes information concerning his methods, targets, sensitive targets in the area of operations, and successes and failures.

18.4.4 Enemy Capabilities Paragraph. In paragraph 3, ENEMY CAPABILITIES, the N-2 states the enemy capabilities that he has determined. His primary and ultimate purpose is to inform the commander what the enemy is physically capable of doing that will affect the accomplishment of the commander's mission.

Enemy capabilities are considered in the intelligence estimate, the commander's estimate, and in the intelligence annex to the operation plan or operation order. Enemy capabilities are defined as:

"Those courses of action of which the enemy is physically capable and which, if adopted, will affect the accomplishment of our mission. The term 'capabilities' includes not only the general courses of action open to the enemy, such as attack, defense, or withdrawal, but also all the

particular courses of action possible under each general course of action. 'Enemy capabilities' are considered in the light of all known factors affecting military operations, including time, space, weather, terrain, and the strength and disposition of enemy forces" (Dictionary of Military and Associated Terms.)

It is important to note the distinction between general capabilities (e.g., attack, defense, and withdrawal) and particular capabilities. In many situations, an intelligence estimate is prepared on the basis of an assumption that the enemy will attack. Hence, in such situations, the general course of action (attack) is assumed — the task is to enumerate the particular capabilities under the category of "attack."

As a rule, general enemy capabilities will be stated in the commander's estimate, such as, "Attack WHITE surface forces;" in the intelligence estimate, this capability will be stated more specifically, to include in what strength, where, and when; for example, "Commencing now, attack with 4 cruisers and 3 destroyers WHITE surface forces in the Phillipine Sea area." However, the intelligence officer does not make or list assumptions in his intelligence estimate. It is the commander who, in this example, makes the assumption the enemy will attack; the intelligence officer prepares an intelligence estimate for the defensive friendly posture the commander has assumed.

The scope of enemy capabilities that are expressed in an estimate will depend on the level of command, the situation (whether formulated prior to the outbreak of hostilities or after war has broken out), and the intelligence available. A joint estimate at the level of the Joint Chiefs of Staff considers enemy capabilities on a global basis. A unified command considers enemy capabilities that will affect the mission of the command — usually on a theater basis. A naval task force is concerned with enemy capabilities expected in its area of operations. In a prehostilities phase, the intelligence available to

estimate enemy capabilities will be in less detail than that which can be developed during wartime. After hostilities have begun, sources of combat intelligence will open up which facilitate a more complete and definite statement of enemy capabilities.

An enemy course of action may favor rather than hinder accomplishment of the friendly mission. This concept is often overlooked. However, the listing of enemy capabilities favoring our mission should be accomplished realistically. The statement, "He can surrender," is unrealistic and not amenable to analysis. The enemy might withdraw his light bombers to support operations against a distant ally of our friendly forces and make accomplishment of our mission easier. Korea furnishes an example: The communist enemy storming the United Nations' perimeter around Pusan, Korea, in late summer 1950, was caught between our forces as a result of the United Nations' wide envelopment by amphibious assault in the Inchon area near Seoul and a simultaneous major offensive launched by our entrapped forces within the perimeter. A capability available to the communist forces surrounding the perimeter was that of retreating northward toward Seoul, thus relieving the pressure on our perimeter forces and expediting the link-up of our northern and southern forces. The enemy did retreat and the joining of UN forces did occur.

Knowledge of a possible enemy course of action that will aid the accomplishment of the friendly mission may prepare the commander to take advantage of a weakness developing in the enemy situation. Such knowledge will enable him to save men, time, and material. He also may gain a more favorable position from which to continue action against the enemy. The intelligence officer must be alert to situations in which enemy capabilities favorable to friendly forces might have an important bearing on the action. For these reasons, enemy capabilities favoring the accomplishment of the friendly mission should not be overlooked.

Any set of enemy capabilities must be focused on our own mission and must present every significant line of enemy action that will produce a significant effect on the accomplishment of our mission. The enumeration of enemy capabilities is not an end in itself; instead, it serves as a starting point and an integral part of a planning process that enables the commander to weigh the result of each of his own possible future courses of action against each of the enemy's in order to determine which of his own courses of action are most promising. Therefore, in the intelligence estimate, enemy capabilities should be expressed in terms of what the enemy is capable of doing, without considering action on our part to prevent or hinder the execution of that capability. (In the intelligence estimate, the planner develops enemy capabilities without considering any military opposition; in the commander's estimate, the commander considers the effect of opposition to enemy capabilities.)

A theater or area joint commander is operationally concerned with a series of operations over a period of time and an extended area (a campaign) encompassing related operations in the air, on the land, and on the sea. Therefore, he wants to know the enemy's total capability to oppose his operations in the air, on the land, and on the sea; the total opposition to the land campaign, in particular, clearly includes combined action by enemy land and air forces and, in some situations, by sea forces. He further wants to know the enemy's campaign capabilities by logical phases over the entire period of the campaign; that is, from D-day to the ultimate objective of the campaign.

This concept differs somewhat for a joint task force, particularly a smaller one. The joint task force commander is generally concerned with a single operation (a battle) or a series of closely related operations over a limited area. He also wants to know the enemy's total (joint) capability against his operation, but he is not so concerned with this capability over an extended area or time.

Statements of enemy capabilities must therefore be expressed in terms of total force in the air campaign, sea campaign, and land campaign and must be carried through to the ultimate defensive or offensive objective. However, there will be occasions when the enemy can employ one element of his forces in a separate and independent action that would have a significant effect on our mission. An example of this is an air or submarine campaign, with or without concurrent action of the other forces at the disposal of the enemy. In these and similar activities, each should be considered for inclusion as a separate enemy capability.

In a campaign, the joint commander is particularly interested in how much time he has to prepare for various operations. No specific plans for operations on our part have been made; consequently, the statement of enemy capabilities cannot reflect the effect of planned action against him. Therefore, in determining how fast the enemy can move, the planner does not consider how long it would take the enemy to penetrate a certain defensive line; but he does consider that the enemy is moving under the constant threat of action on our part. This means that naval forces will have adequate air defense for amphibious operations, since surface vessels cannot operate without normal support (air defense, antisubmarine defense, etc.); that submarines moving to and from stations must do so submerged during periods when they normally would be in danger of detection; and that aircraft normally employed in air defense should not be considered totally available for attack. In determining rate of advance of the enemy's land forces, it is necessary to consider dispersion, security, and consolidation of gains; capacity of lines of communication; and rear area security. Occupation requirements must be considered in determining available strengths. In other words, "unopposed" means unopposed by specific, planned action by our forces, but opposed by the threat of action on our part.

Statements of enemy capabilities should be objective — not influenced by timidity or

recklessness, by preconceived notions, or by suppositions of what friendly forces would do in similar circumstances. They should be concise and to the point, with no discussions of order of battle, doctrine, tactics, or strategy. Each statement of an enemy capability must contain, however, as each pertinent information as is necessary to answer five questions:

1. What is the enemy capability that will affect the friendly mission? If the estimate is based on the assumption that the enemy will attack, then each particular course of action under the category of "attack" must be stated as part of the "what."
2. Where? In the case of ground forces, if the action is of an extended or continuous nature, indicate routes to probable objective. In the case of air and naval forces, indicate areas which could be brought under attack.
3. In what strength? In the case of ground forces, if the action is of an extended or continuous nature, indicate strengths or reinforcements at key intermediate stages. For air forces, give initial strike and monthly sustained sortie rates by type of aircraft. For naval forces, give the number of combatant vessels on station. In all cases, maximum forces should be shown.
4. When can the enemy execute this capability? The earliest time the enemy can initiate each capability is computed. Time calculations for the conduct of the operations are considered in the most favorable light from the enemy's point of view. They are computed so as to determine the earliest time by which the given capability or parts thereof can be effected.
5. From where will the enemy initiate this capability? For example, "Will attack from the east with" Often this question is answered by the replies to queries listed above — What and Where?

In determining the initial list of enemy capabilities, use the following procedure as a guide:

1. Consider the overall enemy and strategic situation.
2. Answer such questions as:

"Is the enemy committed on other fronts?"

"Is this operation a part of a general strategic offensive or defensive?"

"Is this the enemy's major effort?"

3. Add any other considerations of a similar nature that may help to gain understanding of the significance of this area to the enemy, including enemy objectives.

In summary: list all the enemy capabilities that can affect accomplishment of the friendly mission. Consider the availability of enemy ground, naval, and air forces. For each enemy capability, carefully note the pertinent facts derived from answering the five questions above. Eliminate from the list capabilities that are grossly disadvantageous, insignificant, or entirely unreasonable.

Reevaluate the list and then group smaller, related capabilities and supporting operations into major capabilities that indicate possible intermediate and final enemy objectives in light of the friendly mission. This reevaluation is extremely important, because each enemy capability must be analyzed against each friendly course of action in the commander's estimate. Consequently, as a practical matter, the number of enemy capabilities should be limited to as few as will state adequately the enemy's combined potential against the friendly command. Further, the possibility of duplication and resulting error is greatly increased when a large number of capabilities are considered.

Reword each enemy capability until it is clear and concise, but still adequately expresses the capability. Certain capabilities may be expressed in a simple sentence or two. Some joint capabilities may require three or more sentences in order to make the meaning absolutely clear. Use only enough words, phrases, and sentences to ensure that the commander is left in no doubt as to what the enemy capability is.

Finally, state each separate enemy capability in a lettered subparagraph of paragraph 3 of the intelligence estimate. List the capabilities either in order of relative importance in affecting the accomplishment of the friendly mission or in the relative chronological order of initiation by the enemy.

18.4.5 Analysis of Enemy Capabilities Paragraph. In paragraph 4, ANALYSIS OF ENEMY CAPABILITIES, the N-2 analyzes each enemy capability separately. He makes the analysis in the same sequence in which the capabilities were listed in paragraph 3. In each analysis, he considers, where appropriate, the effects of all factors discussed under the various subheadings of paragraph 2.

No enemy capability will be eliminated with the statement "None" or "Has no capability." If there is nothing to discuss about a listed capability, if no analysis is possible, it should be removed from paragraph 3. Each capability open to the enemy is worthy of complete and detailed analysis. Whereas paragraph 3 considers broad action, paragraph 4 analyzes details.

Time and space should be carefully analyzed to determine maximum enemy strength by types of force during each period or phase and the reinforcement potential in the execution of the capability analyzed.

The enemy should be given the benefit of the doubt. Thus, the intelligence officer must always assume, in the absence of positive facts to the contrary, that the enemy will make the

best possible tactical decisions, will conduct a maneuver in the best possible way, and will execute movements in the shortest possible time. Hence, to expect the worst guards against surprise. For example, in estimating the time of a possible enemy attack, the major interest from the intelligence viewpoint is the earliest possible time of attack. If own forces can be prepared to resist an immediate attack, they certainly can be ready at a later time. The intelligence officer's approach differs from that of the operations officer, who is concerned primarily with the capabilities of own forces.

Throughout his analysis, the N-2 should be alert for indications that the enemy will or will not adopt a particular capability. He should consider how adoption of the capability will affect accomplishment of the friendly mission and discuss vulnerabilities that make the enemy especially liable to damage, deception, or defeat. In his analysis, the N-2 considers the factors listed under Significant Strengths and Weaknesses; the characteristics of the area; enemy tactical doctrine; and his own background knowledge of the enemy. The vulnerabilities he considers should be actual vulnerabilities, either known or deduced.

The purposes of paragraph 4 are to:

1. List significant known facts regarding each enemy capability
2. Examine these facts in order to fully understand the capability
3. State those facts that specifically facilitate or hinder enemy execution of the capability
4. Determine whether each capability listed is a major capability that requires a separate listing or one that should be grouped with other capabilities
5. Determine which auxiliary capabilities should be analyzed in connection with each major capability

6. Determine the effect of each capability on the friendly mission

7. Point up evidence that tends to indicate the relative order in which the enemy might adopt his capabilities.

State the relative probability only when it can be justified; it must be based on sound indications and known facts — not on guesswork. The intelligence officer should give reasons for the selected relative order of enemy capabilities.

18.4.6 Conclusions Paragraph. In paragraph 5, CONCLUSIONS, the N-2 states his interpretation of the evaluated information that he has presented, analyzed, and integrated in the preceding paragraphs. It contains the statements of enemy capabilities which the evidence indicates the enemy is most likely to adopt, listed in the relative order of priority of adoption, if this can be determined. If the probability cannot be determined, the N-2 should so state.

Paragraph 5 is the N-2's statement of conclusions reached through a comparative study of the preceding analysis and discussion of enemy capabilities. Since his determination of probable enemy capabilities is based on his interpretation of the intelligence that is indicative of future enemy action, his determination must be fully justified by the analysis and discussion of each enemy capability in the pertinent paragraph of the estimate. It is objective. It is not an attempt to guess what the enemy will do. It is an attempt to decide from available evidence what the enemy is most likely to do.

Probable capabilities are stated in paragraph 5 only insofar as available evidence justifies the statement. If the enemy is capable of implementing two or more capabilities simultaneously, the fact should be plainly indicated. This also applies to any combination of the listed capabilities. Paragraph 5 should also include,

when possible, a concise statement of the effects of each enemy capability on the accomplishment of the assigned mission.

Where possible, the five standards should be covered in the statements of enemy capabilities: (1) What it is, (2) Where (in what area) it can occur, (3) In what strength it can be accomplished, (4) When it can occur, (5) From where the enemy can carry it out.

In the final part of paragraph 5, the N-2 lists exploitable vulnerabilities. The list is his statement of conclusions reached through comparative study of the vulnerabilities discussed in the previous paragraph and is confined to vulnerabilities that may be exploited by friendly forces. In determining what enemy vulnerabilities should be listed, the N-2 must necessarily give some consideration to the feasibility of exploitation by his commander. However, the recommendation to the commander of courses of action to be adopted is not within the province of the N-2, but belongs to the N-3, after careful coordination and consultation with the N-2. Therefore, the N-2 lists those vulnerabilities that may be exploited by the commander and makes no recommendation for specific exploitation.

18.4.7 Recapitulation. The following list emphasizes precautions that the intelligence officer should take when preparing the intelligence estimate:

1. State the mission clearly.
2. In paragraph 2, do not merely list facts; interpret the facts in the light of possible enemy operations and the friendly mission.
3. State enemy capabilities clearly, concisely, and completely.
4. Analyze enemy capabilities from the enemy's point of view, not from the point of view of what friendly forces would do in a similar situation.

5. In the conclusion, give the order of probable adoption only when there is sufficient evidence in the estimate to justify such a statement; otherwise, state that no order of adoption can be determined.

6. Remember that the purposes of the estimate are to assist the commander in his analysis of opposing courses of action and to help him to arrive at a sound decision.

18.5 FORM AND DISTRIBUTION OF THE INTELLIGENCE ESTIMATE

18.5.1 Form. Many forms and outline guides have been prepared and published for the preparation of the intelligence estimate. They differ according to the purpose for which the estimate is prepared and the nature of the service or agency preparing the estimate. There are differences, for example, between the requirements of an intelligence estimate for the Strategic Air Command and those for one for an Army corps. However, despite differences in requirements, there is considerable uniformity in intelligence estimates made by military organizations. They all include a statement of the mission, intelligence on the enemy and the area, and enemy capabilities. One form for intelligence estimates in current use is the "Intelligence Estimate of the Situation" in Unified Action Armed Forces (UNAAF). It is the basis for the form used in Figure D-1 of Appendix D and in the Joint Staff Officers Guide (AFSC PUB 1).

Appropriate treatment of any topic included in the intelligence estimate is determined by the sense in which that topic applies to a particular operation and its possible area of operations. When cogent reasons exist, the estimate may be modified to permit appropriate treatment of any topic. If any topic is not pertinent or not applicable to the specific estimate, the topic is listed, followed by the words, "Not applicable."

The intelligence estimate should be clear and brief. Coverage must be adequate, but distinctly limited to the specific mission at hand. Brevity is not necessarily a virtue; however, it can help increase convenience in the use of the estimate by other members of the staff.

The intelligence estimate should be a document complete in itself. References to other intelligence documents should be avoided. Persons reading it should not be forced to search other documents to find details pertinent to the estimate. However, annexes may be used and order of battle overlays may be attached to the estimate to provide a graphic portrayal of enemy dispositions.

18.5.2 Distribution. The entire intelligence estimate should be distributed to other staff sections for several reasons:

1. It contains much information on the enemy forces that has a bearing on accomplishment of the friendly mission.
2. It enables them to understand the "Why" of the enemy situation as well as the enemy's possible actions.
3. It is desirable that they are aware of less likely enemy capabilities and the reasons why the capabilities are not listed as probable.
4. It helps keep them fully informed on all aspects of the enemy situation, thus reducing rumor and speculation.

5. If only the conclusions section is distributed, they will not benefit from understanding the facts and reasoning involved in the estimate.

If the commander disseminates his estimate of the situation to higher echelons for approval or to adjacent ones for coordination or information, he does not normally accompany it with the intelligence estimate, because his estimate includes information from the intelligence estimate.

A numbered air force, a field army, or a naval task force, for example, might reproduce its intelligence estimate in its periodical intelligence publication. That command might think its monthly intelligence publication a proper dissemination medium for the entire intelligence estimate. It is more likely, however, that only the paragraphs dealing with enemy capabilities would be reproduced.

In some instances, the intelligence estimate might be included as an appendix to the Intelligence Annex of the operation plan or order. This is not standard procedure, however, as the portions on the enemy situation and enemy capabilities in the annex are extracted from the estimate. There is seldom justification for furnishing all of the estimate to lower units that receive the annex. The entire estimate would be included only if the recipients needed more intelligence than the annex provided.

CHAPTER 19

The Intelligence Annex

19.1 RELATION TO THE OPERATION PLAN

The intelligence officer provides the commander with the intelligence considerations that bear on his estimate of the situation; he also provides the intelligence information that the commander includes in his written directive. In most cases, the intelligence information for the directive is so lengthy that it requires publication in a separate annex, known as the intelligence annex. This annex (Figure D-2 in Appendix D) is an integral part of the commander's directive. It may be regarded as the plan for intelligence supporting the basic directive.

If the planned operation is small and the intelligence required to be disseminated with the plan is very brief, there may be no formal annex. The material normally contained in the annex may merely be listed in the body of the plan under "Enemy Forces" and "Task Assignment"; however, this is rare. Any action large enough to require a written plan will also need an intelligence annex.

19.2 PREPARATION OF THE INTELLIGENCE ANNEX

19.2.1 Categories of the Data in the Annex. The preparation and presentation of the intelligence annex is part of the dissemination phase of the intelligence cycle, since it is through the plan that the commander informs his forces of the role they will play in the projected action. The material contained in the annex falls into two broad categories:

1. Data on the enemy and the area of operations that is of immediate concern to units of the force

2. Plans and directives for the conduct of intelligence activity.

19.2.2 Need for Brevity. In preparing the annex, the intelligence officer should remember that the intelligence it contains must be pertinent. Operating units are not interested in background nor can they be bothered with a long catalog of facts. What they want to know is — how their particular tasks will be affected by the circumstances of the operation. For example, data on the probable duration of the monsoon should be translated into such precise conclusions as the number of days that will be suitable for flight operations.

The body of the annex (that part bearing directly on our operations) should, above all, be brief. Any elaboration or explanation, which the intelligence officer considers necessary for a full understanding of various factors in the situation, should be brought out in appendixes to the annex. If the operation is complicated and requires detailed study, the appendixes can be broken down into tabs. Intelligence factors that the intelligence officer considers vital to success should be amply treated; however, he should summarize them concisely in the body of the annex before discussing them in all their potential aspects.

19.2.3 Summary of Enemy Situation. Describe the situation in detail to aid the commander in developing enemy capabilities. Generally, this paragraph follows the instructions for paragraphs 2 and 3 of the intelligence estimate (see paragraph 18.4).

19.2.4 Command Mission. State the mission of the command as a whole. It serves to focus attention on the area of operations, the enemy

forces to be opposed, and the task(s) and purpose of the commander.

19.2.5 Intelligence Information. This paragraph may briefly recapitulate the original collection schedule, which was issued separately after the initial study of the assigned mission; however, it is generally slanted toward collection efforts after the promulgation of the operation plan. By this time, the intelligence officer has a better idea of the gap in his knowledge and knows more precisely (1) which units will be available to him and (2) what intelligence tasks they can accomplish consistent with other assigned duties.

With the issuance of the intelligence annex, the time has passed for generalities. It is too late to say it would be helpful to know particulars about the enemy and that indications will turn up in the course of general reconnaissance. List essential elements of information (EEIs) and indications in terms of precisely what we must know, state definitely the means for fulfilling these needs, and provide an exact time schedule for collection.

All questions posed by the EEIs must be answered precisely. The intelligence officer should, by this time, have the facts on which to base his indications. For example: "The enemy's Nth Armored Division is based at X-Ray, 20 miles inland from Beach Red; while beach exits are poor, a hard-surfaced road leads from X-Ray to a point 3 miles north of Beach Red; trafficability over the sand is poor, but adequate for light armor. On the other hand, the bombardment will lift at the same time on Beach Green where no landing is planned."

Precision in stating indications should bring the intelligence officer increasingly satisfactory reports from his collectors. In the example just cited, if an aerial spotter knows that he is looking for definite moves on the part of the Nth Armored Division, he is in a better position to furnish pertinent information than he would be if he had been given the general task of reporting troop movements.

The form for recording EEIs should remain constant, regardless of the amount of information remaining to be collected by the time the intelligence annex is promulgated. Advantage will be taken of spot developments (intelligence targets of opportunity). The intelligence officer should record them at the earliest possible moment, even if he recognizes them as indications of an EEI. The purpose of recording is not so much to maintain a permanent record, as it is to present the whole intelligence picture, a review of which might lead to new indications or new EEIs.

19.2.6 Intelligence Acquisition Tasks. Since the original collection plan has probably been operating for some time before the intelligence annex is prepared, a certain amount of the collection work can be presented as accomplished fact. Whether or not the intelligence information has already been processed, it should at least be mentioned in summary to give some idea of how current needs developed.

Note that the source of intelligence is the one aspect of collection over which the intelligence officer has little direct control. Occasionally, his own subordinates may originate some information, but the opportunities for this on an operational staff are rare. In general, the intelligence officer must depend on four major sources for the information he will process:

1. Personnel and facilities of Naval Intelligence, whose services he may request as a matter of course
2. Military personnel of his own operating force, whose use depends on the decision of the commander as to priority of tasks
3. Personnel of friendly units, from whom information may be requested but not necessarily required

4. Attache organizations and intelligence divisions of other branches of the armed services.

The amount of assistance the intelligence officer will receive from personnel of his own operating force and friendly units is frequently up to the individual intelligence officer. It is his business to convince his commander of the importance of fulfilling a vital EEI. It is also his business to smooth the way for his own requests by agreeing, whenever it will not interfere with his own mission, to perform similar services for other friendly forces.

In arranging the collection plan, the intelligence officer should maintain the closest possible liaison with operations. If he neglects to do this, he may forget that intelligence collection is only one responsibility of the operating forces — and a collateral one at that. The intelligence officer cannot himself assign a collection task to any operating unit or personnel, other than those directly under his control. But, in requesting assignment of units or personnel, he should take the initiative in rearranging his schedule to suit the convenience of operations, within the time limits available for the production of necessary intelligence.

The intelligence officer must have the prior approval of the commander before listing collection tasks for any subordinate units. In the preparation of his suggested task list, he should not forget the needs of other staff planners. If he is to expect their continued cooperation, he should arrange to ascertain and supply their needs for specialized intelligence to assist them in preparing their own plans.

The intelligence officer should carefully list tasks only for those units which are directly assigned to the commander's force. While friendly forces, special teams, and agents may be extremely valuable as collectors of intelligence, they are not on the distribution list for the basic directive and they are frequently not under the operational control of the commander.

Any requests for their services are the subject of separate letters or dispatches.

Except for availability of forces, there is no limit on the number of intelligence tasks which the intelligence officer may request for assignment to any one unit or group in the commander's force. For example, one collector may be capable of performing several functions — weather reporting, hydrographic reconnaissance, boarding of enemy fishermen, and so forth.

With this in mind, the intelligence officer sets up a detailed collection schedule. At H minus 2 hours, for example, he schedules reconnaissance aircraft to report the position of the Nth Armored Division — whether it is still at X-Ray, whether it is moving toward Beach Green, or whether it has pulled out to the rear, leaving Beach Red without reinforcements. Depending on the information received at this time, he will develop other indications and, if further means of developing them are needed, he will state them just as precisely.

Intelligence information that the enemy may obtain concerning an operation could remove the element of surprise or enable him to thwart or disrupt the courses of action available to the commander. Therefore, during the planning phase of the operation, the intelligence officer must define that information which, if available to the enemy, would require re-evaluation of courses of action or could affect the outcome of the selected course of action. He lists this information as specific statements of essential elements of friendly information (EEFIs) and makes provision for having their compromise reported to him for evaluation. For example, an EEFI might be stated: "Indications of an impending air strike more than 2 hours prior to time over target." Information that could become available to the enemy may be learned through counterintelligence and monitoring and analysis of our communications traffic.

19.2.7 Supplementary Intelligence Activities. The intelligence officer uses this paragraph to provide the detailed operational procedure by which intelligence within the command is to be supplied and maintained.

Standing operating procedures (SOPs) will generally cover a large percentage of the contingencies that might be anticipated in any given operation. In such cases, a reference to the appropriate SOP will suffice. In cases in which the SOP is inadequate, or when special collection techniques require departure from the SOP, the intelligence officer must fully detail the new instructions and provide the

hour at which they become effective. They may include provisions for submission of the reports described in paragraph 17.5.2.

19.2.8 Reports and Distribution. The intelligence officer should use this paragraph for a statement of reports required, publication distributions, and timing considerations.

19.2.9 Miscellaneous Instructions. This is an open-ended paragraph in which the intelligence officer may examine factors, not specifically mentioned otherwise, in the light of requirements, availability, and limiting factors.

CHAPTER 20

Supervision of the Planned Action

20.1 SUPERVISION

Until the operation begins, the work of the intelligence officer is regarded as practical but unproven. Theoretical planning ended with promulgation of the intelligence estimate; its place was taken by the factual presentations of the intelligence annex to the operation plan.

The test of the quality of the product of intelligence planning lies in the actual circumstances of the battle or operation, with the important reservation that no intelligence is ever complete. With this in mind, the intelligence officer can watch the plans, which he had helped to formulate, become military realities. His errors or misunderstandings will become glaringly apparent; his successes may never be noticed.

Since the intelligence picture of any action constantly changes with the minute-by-minute circumstances of the action, the intelligence officer must not assume that once the operation is under way, the need for collecting, recording, processing, and disseminating intelligence is over and done. Changes in knowledge about the enemy or about the composition of own forces and modifications of the commander's mission make it essential for the intelligence officer to constantly supervise and correct intelligence plans and products.

20.2 RUNNING ESTIMATE

Naval operations and preparations for operations are never static; as conditions change, the commander must be ready with revisions to his operation plan. To prepare these, he needs continuing recomputations of enemy capabilities and reappraisals of the

situation, eliminating irrelevant or unsuitable intelligence material. Any changes, whether in the nature of the capability or the order of probability of adoption, must be communicated immediately to him and to other appropriate commands. The initial intelligence estimate and the intelligence summary promulgated in the plan are not absolute statements of enemy striking power; they are final only for the moment when they were made.

The intelligence officer, therefore, keeps abreast of all the changing factors of the operation by means of a running estimate, in which he recomputes capabilities and reassesses the enemy situation, as circumstances dictate. There is no set moment for beginning his running estimate. In its essentials it merely continues the process that was set in motion by the assignment of the mission. The intelligence officer constantly reestimates the situation; the intelligence estimate and the intelligence summary may, in fact, be regarded merely as progress markers in an overall running estimate.

With the promulgation of the intelligence annex to the operation plan, however, the need for and function of the running estimate become more clearly defined. The operating forces now have a formal guide for action. Whenever and wherever an intelligence item bears in any way on the power of the enemy to affect our chances for success in the planned operation, there exists also a very probable need for a reestimate of the situation.

20.2.1 Function. The running estimate performs precisely the same function as all other estimates: it investigates and weighs the capabilities of the enemy. But more often than

not, it now indicates the need for decision on a specific action caused by specific circumstances. Occasionally, it is concerned with the overall enemy situation; but if the intelligence officer has been thorough in his previous estimates, the running estimate will detail some particular enemy capability of immediate concern.

20.2.2 Format. Forms can be outlined for the preparation of the running estimate, but they must serve as guides only. Any running estimate must be extremely adjustable to allow for the constant revisions necessary in continually changing operations, no two of which are ever alike in all particulars. Overlays, plots, and short summaries are the most flexible and are probably the best methods of presenting the running estimate. In fact, presentation is probably less formal at this point than in any other step of the intelligence cycle.

20.2.3 Principles. Accuracy in determining the most favorable enemy courses of action is particularly important in preparing the running estimate, since the effect of the enemy's actual course of action on our own tactics is immediate. If the intelligence officer knows our situation and the enemy's capabilities, he should be in a better position to predict what the enemy should do than the enemy commander. At its best, the running estimate duplicates the enemy's staff work: the intelligence officer puts himself on the enemy commander's staff and selects for him the most profitable courses of action according to his knowledge of the missions of both forces.

The possibilities inherent in the running estimate are unlimited. Occasionally, it can produce intelligence of so drastic a nature as to change completely the commander's decision. Alteration or reversal of the operation plan does not, however, change the estimate method; the running estimate would merely provide the basis for a new estimate of the situation, whether formally stated or not.

During an operation of any sort, the intelligence officer must maintain the closest

possible relations with operating units. He must be constantly alert to fill their intelligence needs. These commands, in turn, will assist intelligence by verifying and confirming information already received. They will formulate requests for further intelligence data and will, in turn, obtain timely operational data of possible intelligence value.

20.3 MODIFICATION OF INTELLIGENCE COLLECTION AND DISSEMINATION

20.3.1 Effect of the Operation. Time and mechanical factors both work against extensive collection of information during an operation. Yet the intelligence officer must have a continuing flow of data, if he is to maintain his running estimate. His difficulties arise partly from two factors: as the action phase of the operation approaches, his needs for precise facts about the enemy become more detailed and exacting; at the same time, the force's communication network is more and more heavily burdened with operational traffic.

20.3.2 Measures. If the intelligence officer has planned well, he will have received and processed all his background and long-term information before the operation moves into high gear. He should keep his requests and messages to a minimum during the action. Those which he must originate should be brief and precise and should request only pertinent information, clearly unobtainable during the preaction phase — in general, information occasioned by the course of the operation.

Similar considerations affect the intelligence officer's dissemination of intelligence during the planned action. Intelligence of vital urgency to the conduct of the operation may be disseminated to subordinate units by message. Since the urgency of any particular item is a matter of fact to be determined at the time, no firm rule can be issued specifying exactly what intelligence is considered urgent. Common sense and staff cooperation should eliminate any difficulties in this regard.

It is easier to list material which the intelligence officer will probably disseminate sooner or later, but which should not crowd the communication circuits. This includes any material which would serve its purpose if disseminated in the war diary or the action report; detailed studies of lessons learned; technical reports on any aspect of the enemy's effort; and reports of new or unusual enemy tactics, unless they affect the outcome of the current action.

Nothing should interfere, of course, with the intelligence officer's primary duty to keep his commander informed at all times of any intelligence factors in the progress of the action. Normally, this involves no tax on any communication facilities; but in any case, failure to supply the commander adequately and promptly with all intelligence affecting his plan is inexcusable.

20.4 POST-OPERATION ASSESSMENT

The intelligence officer, no less than other division heads, has the duty of analyzing his own role in the completed operation, particularly his errors and omissions. There has never been sufficient intelligence for the perfect planning of any naval engagement. Human error makes it probable that the information on hand was never perfectly processed nor the intelligence perfectly disseminated and used.

The intelligence officer's responsibility is still primarily to provide data on the enemy's forces. His first task, after the operation has ended, is to determine the extent of the damage his own force inflicted on the enemy, and thereby aid in the commander's determination of the extent to which the assigned mission was accomplished.

More vital to subsequent operations, however, is his detailed assessment of how far short of perfection the various factors of intelligence fell. If his intelligence estimate failed to take into account some enemy capability — whether that capability was successfully acted

upon or not — he should note the fact. He should report any failures in his collection schedule with reasons for the failure and any criticisms of the completeness or feasibility of the intelligence annex.

If the running estimate necessitated drastic changes in the commander's battle plan, thorough investigation should determine whether the intelligence division could have foreseen the circumstances. If special intelligence techniques were devised, which aided the accuracy and thoroughness of reports and plots, they should be noted for appraisal and further dissemination.

20.4.1 Action Reports. Upon the conclusion of the operation, the most immediate duty of the intelligence officer is the preparation of another intelligence annex — this time the annex to his commander's action report. He should discuss the effects of the intelligence provided to command, its failures and shortcomings, and its usefulness and accuracy and note in detail any pertinent recommendations which might affect similar operations in the future. The intelligence officer, at this point, should regard the operation in which he has been engaged as a part of the basic body of intelligence, to be drawn upon by other intelligence officers in planning other operations.

The intelligence officer should evaluate any new and corroborative (or contradictory) information regarding either the enemy or the area of operations, which has been acquired as a result of the operation, and disseminate it either in the action report or by other more effective means, depending on the type of information and the circumstances. He should reevaluate photographic interpretation in the light of actuality and assess from the intelligence viewpoint the damage from gunfire, bombing, rocket fire, or underwater demolition.

Certain special reports may also be required. Among these might be an assessment of the effectiveness of propaganda warfare, an analysis of the enemy's intelligence organization, or a

study of the defensive installations encountered.

In smaller operations, where no formal intelligence annex is issued, the intelligence officer is responsible for the preparation of that part of the action report which concerns damage inflicted on the enemy.

As in the preparation of the intelligence estimate, the intelligence officer's first step is collection; although the probability is that no formal collection plan will be necessary. All operating units report their accomplishments as a matter of course. The main task of the intelligence officer is processing these reports in the light of what he already knows or has learned regarding the enemy situation.

The steps of processing remain constant for damage assessment, although they may be handled with less formality. The intelligence officer should evaluate a report of the results of a bombardment, for example, just as he did an intelligence report received prior to the action. He should analyze it on the basis of what it meant to the enemy and what it probably accomplished in interfering with his ability to resist.

It is in the interpretation step of the process that the intelligence officer applies the results of his assessment to our force. It is not enough to say that certain damage was inflicted on the enemy, thereby cutting down his strength by so much. The intelligence officer should also determine what this meant to the mission of his own commander and in what way it eased or otherwise affected the outcome of the mission as a whole.

As a corollary responsibility, the intelligence officer must study and analyze the action reports submitted by subordinate echelons. By this means, he increases his familiarity with the details of the operation and keeps abreast of new developments in enemy material and techniques. If possible, he should also study the

action reports of other commands operating in the same area or against a common enemy.

20.4.2 Intelligence Recommendations. The intelligence officer should utilize the period between the end of one operation and the assignment of a mission for another for a comprehensive assessment and review of his techniques. His aims should be to improve his own handling of the intelligence cycle and to provide others in the intelligence organization with the benefits of his practical experience. He should particularly make sure that any factual intelligence he has learned — whether it deals with enemy tactics, techniques, capabilities, or potentialities — becomes a part of the Navy's permanent intelligence files, where it may be drawn upon for guidance as needed.

The intelligence officer's responsibility is a dual one: first, he provides his commander with the intelligence necessary for the successful conduct of operations; second, he channels suitable material to Naval Intelligence. During the post-operation stage, the latter comes more into prominence than at any other time. He should certainly forward any recommendations regarding the practicability of particular arrangements or techniques in the intelligence cycle, especially those resulting from battle experience. If they are not too complicated, or if they do not involve radical revision of the whole body of intelligence policy, they can be handled in the action report. In cases in which a discussion of some length is required, it should be the subject of a special report.

20.5 CONTINUATION OF THE CYCLE

With the final step in dissemination, whether it is the issuance of the action report or the forwarding of special recommendations, the intelligence cycle automatically renews itself. For a specific operation, the intelligence cycle commences upon receipt of a mission and ceases when action is complete and final reports have been made; however, the intelligence cycle for an operation is merely a phase of the continuing strategic intelligence cycle or a part

of a continuing operation. Every intelligence item processed not only serves as background information for some future operation but also suggests new collection possibilities for the intelligence officer doing the processing. The cycle is, to a certain extent, self-renewing in all its other phases. Initial collection draws on the

finished intelligence already available as the result of previous cycles. Recording and processing invariably suggest new collection possibilities as well as transform raw information into intelligence. The process constantly repeats as each step in the cycle leads inevitably into further steps.

PART V

Psychological Warfare Planning

Chapter 21 Psychological Operations

CHAPTER 21

Psychological Operations (PSYOP)**21.1 ROLE OF PSYOP**

Many activities of the Navy affect the perceptions and attitudes of foreign groups. Peacetime force presence reaffirms foreign policy commitments. Naval operations and exercises demonstrate capabilities to accomplish successful operations. Contacts with foreign nationals through port visits, civic action, cultural exchange programs, and public information efforts affect the impressions of the United States held by individuals in foreign nations. Operational security (OPSEC) measures and military deception operations affect the perceptions of foreign military and political leaders and the staffs and intelligence organizations supporting them. Finally, combat operations affect the morale of enemy forces, leaders, and general populace.

Psychological operations (PSYOP) in the Navy, as differentiated from the foregoing, is the deliberate use of channels of communication to systematically sway particular group attitudes in a manner desired. Channels that might be used include radio, television, newspapers, leaflets, loudspeakers, speeches, books, pamphlets, posters, wall writings, songs, skits, slogans, plays, paintings, rumors, and intelligence systems.

21.2 GENERAL DOCTRINE FOR USE OF PSYOP

During peacetime, PSYOP is generally not needed for support of routine naval operations. Strategically, however, PSYOP may be appropriate to increase the willingness of foreign nations to provide facilities which support U.S. Navy operations, to reduce their willingness to support naval operations of potentially hostile

powers, and to retaliate for foreign actions that adversely affect or interfere with naval operations. The use of PSYOP in peacetime is directed from the national level.

During crises and the execution of associated short-term military operations, PSYOP should be conducted to gain support from foreign nations for U.S. positions, to influence the military and civilian personnel of the nations against which operations may be undertaken in order to gain objectives without the need for combat, and to support the achievement of the objectives of military operations in minimum time with minimum casualties.

During war, combat operations may be conducted in or on the periphery of a single country, be limited to a single theater, or be conducted worldwide. Regardless of the extent of the area of conflict, ideological warfare in the form of PSYOP should be conducted on a worldwide basis. Three basic reasons for this are to gain support for U.S. actions, to isolate enemy nations from outside support, and to establish a psychological climate to achieve postwar goals.

Against enemy nations, PSYOP campaigns are conducted to weaken the enemy's military forces, to reduce the will to fight among the enemy populace and leadership groups, and to degrade the ability of commanders and political leaders to act decisively.

With reference to allies, PSYOP should be conducted to strengthen cohesion and will to fight. In support of campaigns and specific operations, PSYOP is used to limit damage to civilians; to encourage enemy desertion and surrender; to hasten the collapse of morale within

enemy ranks; and to confuse, distract, and foster the indecisiveness of commanders.

21.3 TYPES OF PSYOP

There are three types of PSYOP. White PSYOP is overt, with the source of information acknowledged. Grey PSYOP leaves the source of information indeterminate. Black PSYOP is that in which the source of information is attributed to other than the actual source.

21.4 PSYOP AND MILITARY DECEPTION

Planning for PSYOP must be closely coordinated with planning for military deception. PSYOP themes and the desired perceptions of military deception plans should support rather than counteract one another. PSYOP channels may be used to convey information in a military deception operation, and vice versa. The use of deception means to conduct PSYOP against hostile intelligence and security forces and senior leaders can be of particular value. PSYOP and military deception operations, when used in combination to achieve particular goals, will reinforce one another.

21.5 USE OF PSYOP IN SUPPORT OF NAVAL WARFARE

PSYOP may be conducted to support naval, national, joint, or combined PSYOP objectives. In any case, PSYOP may be supported by other services and civilian agencies. In support of naval warfare, PSYOP targets may include:

1. Elements of enemy naval and maritime forces
2. Foreign intelligence organizations
3. Foreign security elements ashore or embarked with enemy naval forces
4. Nations providing assistance to enemy naval forces

5. The population in an area of naval operations.

21.5.1 Objectives of PSYOP in Support of Naval Warfare. PSYOP in support of naval warfare would include these general objectives:

1. Reducing the morale and effectiveness of enemy maritime forces, subverting their loyalties, and fostering mutinous behavior
2. Diverting enemy resources to the maintenance of internal security, causing the imposition of security procedures which degrade enemy mobility and command and control, increasing the cost of enemy maritime commerce, and restraining enemy population movements in coastal areas
3. Creating distrust between enemy military officers and their political leaders
4. Subverting the loyalties of security and intelligence personnel supporting enemy commanders
5. Disrupting the provision of support by third party nations to enemy forces
6. Encouraging the treatment of prisoners of war in accordance with the Geneva Convention and fostering assistance to personnel in distress, evading, or escaping
7. Increasing the acceptance of U.S. military presence in an area and increasing the willingness of the populace and prisoners to provide information of intelligence value.

21.5.2 Naval Staff Organization for PSYOP Planning. PSYOP planning is generally done by fleet and numbered fleet staffs; however, subordinate commands may become involved in the execution of PSYOP tasks. In the Navy, PSYOP is a collateral duty planning task. Formal training for planning, if desired, can be requested from the U.S. Army or U.S. Air

Force. The U.S. Navy has no PSYOP training courses.

21.6 PLANNING PSYOP

Commanders preparing operation plans should consider PSYOP as an integral part of their operational strategy to support the effective achievement of objectives. It is particularly essential that contingency and general war plans show the role PSYOP is to play. It is the nature of PSYOP that the military benefits realized will be no greater than those capabilities and objectives postulated in plans. The plans of other agencies will not provide for support to naval commanders, unless naval plans indicate such support is required.

21.6.1 PSYOP Capabilities. To plan and conduct PSYOP, capabilities are necessary for:

1. Research and analysis of characteristics, traits, and attitudes of target audiences
2. PSYOP message design and presentation planning
3. The preparation, dissemination, and effectiveness evaluation of PSYOP material.

21.6.2 Research and Analysis

1. Primary responsibility for research and analysis in support of PSYOP is assigned to the U.S. Army. Support for planning may be requested through the commanders of the unified commands.
2. Studies have been produced which can aid PSYOP planning for countries specified by the commanders of unified commands. These include basic PSYOP studies, special PSYOP studies, and estimates contained in war plans.
3. The countries against which U.S. PSYOP will be directed are primarily authoritarian. The means of communicating with target groups are often limited. Authoritarian

governments are, however, vulnerable to PSYOP in that generally they will possess internal security forces, there will be rival centers of power, and rival groups will not share information. These characteristics can be exploited in time of war.

21.6.3 Message Design and Presentation. Messages to be provided to a target group must be tailored to the group. The communication technique used to present the material should be selected to best ensure that the target group will accept the message. In general, both these tasks will be accomplished by PSYOP and country specialists.

21.6.4 PSYOP Material Preparation. PSYOP material will normally be prepared by media specialists, e.g., radio productions will be prepared by scriptwriters and printed material will be prepared by graphics specialists. The production of material, however, can be done by any available facility of the appropriate type, e.g., printing, tape reproduction, or photographic reproduction. Naval forces generally do not have specialized capabilities to prepare PSYOP material and are largely dependent on reproduction capabilities intended for other purposes.

21.6.5 PSYOP Material Dissemination. There are many means of disseminating PSYOP material. The key to success is timing the spread of material so that the PSYOP message is reinforced by actions and events observed by the target audience or by statements and actions of those whom they trust. Naval means of delivery could include loudspeaker operations from units appropriately equipped; leaflet delivery from aircraft or balloon; radio broadcasts from shipboard transmitters; float operations using current, wind, and tide; and delivery of material by hand. Demonstrations of power by naval forces may be considered an implicit means of delivering a PSYOP "message."

21.6.6 PSYOP Effectiveness Evaluation. The effectiveness of a PSYOP campaign is often difficult to measure, as it is only one of a

number of means of attacking enemy morale and capabilities. To aid such evaluation, the PSYOP Effects Analysis System (PEAS) has been developed. PEAS is a joint activity conducted for the commanders of the unified commands.

21.7 COUNTER-PSYOP

Foreign nations can easily exert influence on groups within the United States by exploiting our constitutionally guaranteed rights of free speech and a free press. Often the ideals and lack of experience of the young are exploited to gain a degree of control over their attitudes and actions. Problems such as racial incidents, high UA and desertion rates, ship fires, bomb threats, suspected sabotage, long deployments, and general overall image can be distorted through the foreign and domestic media. Emphasis must be placed on open and effective communications channels and command information programs that recognize the potential problems and ensure that the truth is kept in perspective.

21.8 THE PSYOP PLAN

PSYOP plans should be incorporated into major operation plans or orders in two ways. First, there should be a general description of the role PSYOP is intended to play in the commander's operational strategy. Second, a PSYOP appendix to the operations annex should be prepared. The following topical paragraphs of the PSYOP appendix are based on the format prescribed in the Joint Operation Planning System (JOPS).

APPENDIX 4 TO ANNEX C TO (ISSUING HEADQUARTERS) OPLAN (U)

PSYCHOLOGICAL OPERATIONS (U)

(U) REFERENCES: List plans, estimates, basic PSYOP studies, and other documents bearing on the PSYOP planned.

1. () SITUATION: Summarize the operations planned and the psychological situation which might affect the success of operations or which may result from the conduct of operations. Indicate higher command PSYOP activities or guidance.

2. () ASSUMPTIONS: State assumptions, if any, upon which PSYOP planning is based.

3. () CONCEPT OF OPERATIONS:

a. General. State the general concept for using PSYOP to support achieving the operational mission and ensuring that the psychological effect of the operation will be to the advantage of the United States.

b. Target Groups. Identify the specific foreign groups PSYOP will influence.

c. Objectives. State the national and foreign policies supported by the operation and the objectives of PSYOP in support thereof.

d. Themes. State the themes to be conveyed and those which should be avoided. When appropriate, indicate how operational and personal actions should and should not be carried out to support PSYOP objectives.

4. () EXECUTION:

a. Tasks. State tasks that must be accomplished to prepare for and execute the concept of operations.

b. Coordination. Indicate coordination required with other commands and agencies in the execution of PSYOP tasks.

TAB A - RESOURCES REQUIRED. List the resources that will be required to execute the concept of operations. Indicate where and when resources must be ready to execute PSYOP actions related to the commencement of operations.

PART VI

Crisis Action and Operational Reporting

Chapter 22 Crisis Action Planning

**Chapter 23 Operational Reporting
(OPREP) System**

CHAPTER 22

Crisis Action Planning

22.1 THE CRISIS ACTION SYSTEM

Although this publication is designed primarily to support the commander in his war fighting role, it also has wide applicability in planning for routine peacetime operations. Deployed naval forces are often among the first units tasked to respond to various crises that occur in the normal peacetime environment.

Such crises often involve command and control of assigned forces from the National Command Authority (NCA), down through the chain of command, to the on-scene commander. Clear recognition of the need to provide uniform methods of command and control, operational planning, and execution during crisis situations has resulted in establishment of the Crisis Action System. This system, established by the Joint Chiefs of Staff (JCS), is described in Joint Operational Planning System (JOPS), Volume IV (SM-657-82).

The Crisis Action System (CAS) uses commonly accepted planning procedures and is intended to facilitate:

1. Rapid exchange of pertinent information
2. Development of feasible courses of action
3. Analysis of situations affecting possible courses of action
4. Decision-making process to select the best courses of action

5. Final definition and coordination of plans and orders to implement NCA or JCS decisions.

The CAS is intended to be conducted in six phases. Each phase begins with a deliberate action (order, report, or event) and ends with a decision. The phases in the CAS are:

1. Phase I — Situation Development
2. Phase II — Crisis Assessment
3. Phase III — Course of Action Development
4. Phase IV — Decision
5. Phase V — Execution Planning
6. Phase VI — Execution.

The CAS progresses through a logical sequence of events from problem recognition through execution of operation orders. Several points are identified in this sequence where decisions must be made to continue planning, hold at a certain planning phase, or revert to a previous planning phase. In certain fast-moving situations, phases may be compressed, conducted concurrently, or eliminated, depending on conditions. A decision to commit forces shortly after an event occurs necessitates compression of phases II through V.

22.2 COURSE OF ACTION DEVELOPMENT

After the decision is made that a crisis situation exists that warrants military preparation or action, JCS normally publishes a

Warning Order.* This order is a planning guidance message to the appropriate commanders and agencies, with an information copy to the services. The Warning Order initiates Phase III.

The Warning Order establishes the command arrangements; designates the supported and supporting commanders; informs the supported commander of possible courses of action; projects lift allocation; provides the supported commander all pertinent information available at the JCS level; and includes the objectives, missions, constraints and, if applicable, major forces available for planning. It normally sets a deadline for the supported commander to submit a commander's estimate to JCS.

Based on the guidance provided, three actions may be initiated:

1. Development of course(s) of action to be recommended to JCS
2. Force selection/alerting and preparation
3. Deployability posture reporting.

Using the missions stated or implied in the Warning Order, the supported commander develops a course of action to be recommended to JCS. Alternative courses of action may be considered and the one desired will be recommended to JCS or an order of priority will be established in the commander's estimate. Courses of action may originate from the following sources:

*In certain fast-breaking situations, the Warning Order could be a telephone conference among appropriate general or flag officers. A follow-on record communication Warning Order should be transmitted as soon as possible, even if detailed guidance is not available, to ensure that all crisis participants are kept advised of the situation. Additional information and guidance can be transmitted in message form, referencing the initial Warning Order.

**In rapidly developing situations, the decision phase (IV) may occur without having a formal planning phase (III). Under these conditions, no Warning Order will be published; the Alert Order will provide planning and operational guidance and the NCA decision, including identification of the major combat forces, movement priority, lift allocation, length of operation, and the tentative C-day.

1. If an operation plan in complete format (OPLAN) is available, it may be modified as required and recommended to JCS for use.

2. If an operation plan in concept format (CONPLAN) is available, it may be expanded as required and recommended to JCS for use.

3. If no plan is available, the basic portions of a plan should be developed by the supported commander for recommendation to JCS for approval.

22.3 DECISION

After review of the preliminary deployment estimates and review and approval of the courses of action proposed by the supported commander, JCS refines and presents, in order of priority, courses of action to the NCA for decision. Following the NCA decision, JCS normally issues an Alert Order** to the supported commander, supporting commanders, and other participating agencies, with information copies to the services.

22.4 EXECUTION PLANNING

Execution planning is that part of the CAS cycle that translates the NCA decision, developed in Phase IV, into an operation order (OpOrd) prepared by the supported commander that can be executed at a designated time. The execution planning phase begins upon receipt of the Alert Order. This order defines the politico-military situation, the mission to be

undertaken, the strategic guidance, and the anticipated date of execution (D-day). Phase V ends when the decision is made to execute the OpOrd, when the requirement is placed in a hold status, or when it is canceled.

The Alert Order reflects the NCA decision and identifies the military course(s) of action selected for execution. The primary task of this phase is the timely development of operation orders that can be implemented when directed by the NCA. Execution planning is directed toward completing and refining the planning accomplished in Phase III. The tasks associated with execution planning are essentially the same, whether using an OPLAN, CONPLAN, or no plan; only the speed of completion is affected. For example, if an OPLAN's assumptions, concept of operations, forces, movement requirements, etc., are still valid, relatively little planning should be required, and the supported commander's basic OpOrd can be quite short with frequent references to the OPLAN.

The OpOrd will be published with an actual force list, instructions for the conduct of operations in the objective area, and the logistic and administrative plan for support of the operation.

The OpOrd does not require approval by JCS; however, if the OpOrd is contrary to instructions provided in the Alert Order, if events have altered the situation, or if JCS determines that changes are required, JCS informs the supported commander.

22.5 EXECUTION

JCS, reflecting the decision of the NCA, orders the supported commander to execute the OpOrd in this phase. The Execute Order establishes the execution time and provides the latest guidance. The supporting commands, the services, and component commands execute their operation orders in support of the supported commander's OpOrd.

CHAPTER 23

Operational Reporting (OPREP) System

23.1 PURPOSE OF OPERATIONAL REPORTS

The operational reporting (OPREP) system has been designed to provide all echelons of command with essential information concerning the planning, initiation, termination, and results of military operations. The OPREP system also provides for the reporting of any event or incident which may attract national level interest, whether or not it is related to possible military involvement.

23.2 TYPES OF OPERATIONAL REPORTS

There are two general categories of operational reports: operational status reports (OPREPs 1, 2, 4, and 5) and event incident reports (OPREP 3).

23.2.1 Operational Status Reports. Operations concerning military units are broadly classified as ground, sea, and air actions. Therefore, it is possible that OPREPs 1, 2, 4, and 5 may be implemented in each of these three categories. The initiation of OPREP 1, 2, 4, and 5 is not automatic. OPREP reports may be implemented at the direction of the commander of a unified or specified command, the service headquarters, or a lower command, when and where operations may justify. Implementation directives identify which reports are required and contain specific information on content. Implementing instructions also specify submission times and report frequency.

23.2.1.1 Specific Reporting Instructions

1. OPREP 1. Operation(s) Planning Report. This report is used to describe planned operations for specific situations.

2. OPREP 2. Operation(s) Start Report. This report is used to execute a plan or fragment of a plan or to advise, in conjunction with an OPREP 1, that an operation has started.

3. OPREP 4. Operation(s) Stop/Results Report. This report is used to advise of the completion of an operation or phase of an operation and its results or estimated results.

4. OPREP 5. Operation(s) Summary Report. This report is designed to provide summarized statistical data.

23.2.1.2 Report Contents. OPREPs are formatted using descriptive paragraphs. The paragraphs are used as a "shopping list" for formatting OPREP reports for which there is no established format or in adding to preformatted reports.

23.2.1.3 Paragraph Descriptions

1. Paragraph A — Operation Description. Briefly describes the operation and includes the commander's estimate, if appropriate.

2. Paragraph B — Narrative. Contains enough general information to give more meaning to paragraph A.

3. Paragraph C — Objective(s). Lists the objectives of the operation.

4. Paragraph D — Force. Indicates what force is involved in carrying out the operation being reported.

5. Paragraph E — Routes. Indicates the path that the forces will take to and from the area(s) of operation being reported.
 6. Paragraph F — Special Tactics. Specifies any special activity which the forces may undertake or have undertaken in the performance of the operation.
 7. Paragraph G — Profile. Provides depth to tabular or statistical information.
 8. Paragraph I — Ordnance Expended; Cargo/Passenger Delivered. Shows the disposition of ordnance, cargo, or passengers.
 9. Paragraph K — Loss/Damage. Indicates losses or damage.
 10. Paragraph L — Search and Rescue. Describes any rescue operations currently underway and any operations which may have been completed and not yet reported.
 11. Paragraph M — Conditions/Qualifications. Includes all statements which indicate constraints or limits to be applied to any phase of the mission.
 12. Paragraph N — Statistical Data. Provides statistical data.
 13. Paragraph O — Unit. Submits data identifying actual units to fill the force requirements identified.
 14. Paragraph P — Resupply and Filler. Submits critical resupply and/or filler personnel requirements data.
 15. Paragraph Q — Unit Move Transportation Requirement (STONs). Identifies unit cargo and personnel to be transported.
 16. Paragraph R — Unit Move Transportation Requirement (MTONs). Similar to paragraph Q, but reports MTON data.
 17. Paragraph S — Movement. Reports flow schedule data resulting from movement planning by transportation operating agencies.
 18. Paragraph X — Corrections. Submits changes, additions, or corrections to previously reported data.
 19. Paragraph Z — Remarks. Includes any additional comments or observations relating to the report which have not been placed within appropriate paragraphs.
- 23.2.2 Event/Incident Reports.** An OPREP 3 is normally the first indication to a senior authority that an incident has occurred which is of national interest or of high U.S. Navy interest. OPREP 3 includes two series: PINNACLE, which contains those reports of high national level interest; and NAVY BLUE, which contains those reports which are not of national interest but are of great concern to the Chief of Naval Operations and other senior naval commands.
- 23.2.2.1 PINNACLE Descriptions**
1. PINNACLE/NUCFLASH — Any accidental or unauthorized incident involving a possible detonation of a nuclear weapon by U.S. forces which could create the risk of nuclear war.
 2. PINNACLE/FRONT BURNER — Any attack or harassment of U.S. forces.
 3. PINNACLE/EMERGENCY DESTRUCTION/DISABLEMENT — Those operations involving the emergency distribution or disablement of nuclear weapons.
 4. PINNACLE/EMERGENCY EVACUATION — Those operations involving the emergency evacuation of nuclear weapons.
 5. PINNACLE/BROKEN ARROW — Covers accidental detonation without war risk, burning or nonnuclear detonation,

radioactive contamination, seizure, theft or loss, and public hazard.

6. PINNACLE — Any event or incident where national interest is indicated, other than those listed above.

23.2.2.2 NAVY BLUE Descriptions

1. NAVY BLUE/BENT SPEAR — Any nuclear weapon significant incidents, other than nuclear weapon accidents or war risk detonations, actual or possible.

2. NAVY BLUE/DULL SWORD — Any nuclear weapon incidents other than significant incidents.

3. NAVY BLUE/FADED GIANT — Any nuclear reactor or radiological accidents in-

volving equipment used in connection with naval nuclear reactors or other naval nuclear energy devices while such equipment is under the custody of the Navy.

4. NAVY BLUE — Any event or incident where high Navy, vice national, interest is indicated, other than those listed above.

23.3 REFERENCES

Because the OPREP system is highly formatted, this chapter provides only a brief look at the system. For detailed reference on operational status reports, see JCS Pub 6, Volume II, Part 2. For detailed reference on event/incident reports, see JCS Pub 6, Volume II, Part 3, and also OPNAVINST 3100.6C, which is preferred for Navy use.

APPENDIX A

Supplement to Operational Planning

A.1 JOINT FORMATS

A.1.1 References. Unified Action Armed Forces (UNAAF), Allied Maritime Message Formats (APP 4), JCS Pub 2, and Joint Operations Planning System (JOPS), Volume I, promulgate the procedures and formats required for the planning and support of joint military operations. JOPS, Volume II, is functionally oriented and provides directional, procedural, and planning guidance keyed to certain annexes. JOPS, Volume III, describes the automatic data processing support system for joint operation planning. These references apply to plans prepared by the unified and specified commands in response to JCS requirements and to supporting plans prepared by other unified and specified commands, their subordinate commands (normally a service component or subordinate unified command), and DOD agencies. They are not directive with respect to uni-service operation plans and orders that do not support joint plans or to standard operating procedures.

A.1.2 Formats. The following UNAAF, JOPS, and OPGEN (APP 4) formats are shown in this appendix for information:

- Figure A-1 UNAAF Format for a Commander's Estimate of the Situation
- Figure A-2 UNAAF Format for an Intelligence Estimate of the Situation
- Figure A-3 UNAAF Format for a Campaign Plan
- Figure A-4 JOPS Operation Plan in Complete Format (JOPS OPLAN)

Figure A-5 UNAAF Format for an Operation Order

Figure A-6 OPGEN Message Formats

A.1.3 Objectives of JOPS. JOPS objectives include: standardization of plan format and content, reduction of the number of plans which must be prepared in complete detail, provision for effective review of plans, and identification of force short falls and limiting factors. JOPS formats are intended to satisfy the general provisions of international agreements concerning operation plans and operation orders.

A.1.4 JOPS Operation Plan in Complete Format (OPLAN). The OPLAN can be translated into an operation order with minimum alteration (see Figure A-4).

A.1.5 JOPS Operation Plan in Concept Format (CONPLAN). The CONPLAN is an abbreviated form of the JOPS OPLAN. It requires expansion to permit conversion into an operation order. The CONPLAN indicates in broad outline how the assigned mission is to be accomplished; normally it does not contain annexes. The CONPLAN includes:

1. All normal elements of an OPLAN in summary form, except that the mission, situation, assumptions, and concept of operations are developed fully
2. A summary of mobility and logistic support requirements
3. Summaries of any existing major constraints as regards forces, movement, or

logistic support that would significantly affect the execution of the plan.

A.1.6 Implementation and Use of JOPS.

JOPS format shall be used for plans prepared in support of joint operation plans that are submitted to a commander of a unified or specified command or his subordinates for review. JOPS format should be used for other Navy operation plans and operation orders as practicable. (See paragraph A.1.7 for Navy use of JOPS format.)

A.1.7 JOPS Format. This paragraph and Figure A-4 provide information for use of the JOPS format in Navy operation plans and operation orders. (Note: this information does not contain all the requirements of JOPS. OPLANs prepared in response to JCS promulgated requirements should be in accordance with JOPS, Volume I.)

A.1.7.1 Short Titles of Operation Plans. The short title of each operation plan is unclassified and denotes the supported commander, the type of plan, and the plan identification (PID) number (e.g., USCINCEUR OPLAN 4999 or CINCLANT CONPLAN 2500). The PID is assigned by the supported commander and is not revised when the operation plan is revised, superseded, or converted into an operation order; nor is it reused when the requirement for the plan is canceled. Operation plans prepared by subordinate and supporting commanders should, when practicable, be assigned a PID identical to that of the supported plan.

When the supported plan provides for alternate courses of action that require separate identification, the alternative shall be identified by adding an alphabetic character (except I and O) to the PID. The alternative so designated should be clearly stated in the plan.

A.1.7.2 Organization of Operation Plans. OPLANs should include the following elements, as shown in Figure A-4, in the order listed below:

1. Cover
2. Letter of Transmittal
3. Security Instructions and Record of Changes
4. Plan Summary
5. Classification Guidance
6. Table of Contents
7. Basic Plan
8. Attachments (Annexes, Appendixes, Tabs, Enclosures, Maps, etc.)
9. Execution Checklist (Annex X)
10. Distribution List (Annex Z).

A.1.7.3 Format of Operation Plans. The arrangement of information in each element should conform to the outline formats shown in Figure A-4. The paragraph and subparagraph headings and designations should always appear as shown. When information contained in the outline of content is not required in the plan, that paragraph or subparagraph should be listed and annotated as "not applicable." Further subdivisions which may be required should conform to the basic system of paragraphing (see paragraph A.1.7.4).

Annexes, appendixes, tabs, and enclosures are assigned the designations shown in the Table of Contents of Figure A-4. These annex designations are mandatory; the designation of other attachments is preferred. Additional annexes may be incorporated when necessary to permit distribution separate from the basic plan or when information must be included for which no provision is made in standard annexes. When included, additional annexes should be designated by letter beginning with L (the letters I and O should not be used as annex designations).

All elements of the plan that are to be promulgated should be listed in the table of contents, as shown in Figure A-4. Major elements, including the designated annexes, that are not required for the plan should be listed in the table of contents as "not applicable." Attachments other than annexes (i.e. appendixes, tabs, etc.) that are not required in the plan need not be listed in the table of contents. When an annex is not included in the plan, no attachments for that annex should be included or listed in the table of contents. If Annex C or D is not to be included in the plan, then the concept of operations paragraph of the basic plan should state the conditions or assumptions which make these annexes "not applicable."

A.1.7.4 Administrative Instructions

1. Pages are numbered at the bottom center according to the page order within each element of the plan, as shown in the Table of Contents of Figure A-4.
2. Each separate element of a plan should bear the date of issue or, when appropriate, revision. Until a plan is revised, all elements should bear the same or original date of issue.
3. The basic plan and each annex is signed or authenticated by an appropriate officer. Full signature blocks are used. Appendixes, tabs, enclosures, and maps do not require signature or authentication, except when distributed separately from the basic plan.
4. Annex designations have **SOLID CAPITALS** in all references to specific annexes. Other attachment designations have Initial Capitals.
5. Paragraph titles are underlined and have **SOLID CAPITALS**.
6. Subparagraph titles have Initial Capitals and are underlined.

7. Sub-subparagraph titles have Initial Capitals and are not underlined, except where forces, commands, or agencies are identified or tasked; these are underlined and have **SOLID CAPITALS**. When a paragraph is subdivided, it shall have at least two subdivisions.

(a) When paragraphs are subdivided, numbered, and lettered, they are designated as follows: 1, a, (1), (a), 1, a, (1), (a).

(b) Each progressive subdivision of a paragraph is indented additional spaces.

8. In the text of operation plans, place names have **SOLID CAPITALS**.

9. Upon the first occurrence of a title or designation in a basic plan and in each annex, it should be spelled out and followed immediately by the approved abbreviation in parentheses. Within that element of the plan, the abbreviation alone may be used thereafter.

10. When page changes are made, the change number and date of the change are placed in parentheses (Change 2 — 25 Feb 82) below the page number.

A.1.7.5 Use of References. The use of standard references instead of reproducing technical information in operation plans is encouraged. References should be documents that are readily available to users of the plan.

A.1.7.6 Classification and Security Markings

1. Each plan shall be assigned an overall security classification based on its content.
2. The long title of an operation plan is classified when it associates the PID with a planned operation, country, or other geographical area. The long title of a plan is not used in the attachments to basic plans.

3. Each element of a plan, including the security instructions, the plan summary, table of contents, and each annex, appendix, tab, enclosure, and map is classified separately in accordance with the highest classification of any portion of its contents.

4. Any element containing Restricted Data, NOFORN information, or other special access requirements shall bear appropriate markings as required by pertinent security instructions.

5. The classification of each major paragraph within the plan shall be shown by inserting the abbreviation of the appropriate classification in parentheses immediately following the paragraph number. However, any element which is wholly unclassified omits paragraph classification and each page is marked "unclassified." When a paragraph is unnumbered, the classification notation is placed at the beginning of the paragraph.

6. The classification of charts, diagrams, tables, and maps shall be shown by notation immediately following the title.

7. Declassification instructions should be in accordance with Executive Order 11652, as amplified by DOD Instruction 5200.1 series and the Navy Security Manual (OPNAVINST 5510.1).

A.1.7.7 Operation Orders. JOPS format for an OPLAN is intended to be basically the same as the format for an operation order. Thus, if the OPLAN assumptions and planned actions are sufficient, the OPLAN can be promulgated as an operation order with a minimum of content changes and format alterations.

A.1.8 OPGEN Message Formats. Refer to Figure A-6. For details on use, see APP 4, Allied Maritime Message Formats.

(SECURITY CLASSIFICATION)

Issuing Headquarters
 Place
 Day, Month, Year, Hour, Zone

COMMANDER'S ESTIMATE OF THE SITUATION

References: Maps, charts and relevant documents

1. MISSION

State the assigned or deduced task and its purpose. If the mission is multiple, determine priorities. List any intermediate tasks, prescribed or deduced, necessary to the accomplishment of the mission.

2. THE SITUATION AND COURSES OF ACTION

a. Considerations affecting the Possible Courses of Action. (1*) Determine and analyze those factors which will influence the choice of a course of action as well as those which affect the capabilities of the enemy. Consider such of the following and other factors as are involved, and include under each a statement of each fact (or an assumption if necessary (2*)) and a deduction of its probable influence on enemy or friendly actions.

(1) Characteristics of the area of operations (3*) including:

- (a) Military geography
 - 1. Topography
 - 2. Hydrography
 - 3. Climate and weather
- (b) Transportation
- (c) Telecommunications
- (d) Politics
- (e) Economics
- (f) Sociology
- (g) Science and technology

(1*) Omit or add subparagraph as applicable.

(2*) Normally in a commander's long range estimate.

(SECURITY CLASSIFICATION)

Figure A-1. UNAAF Format for a Commander's Estimate of the Situation (Sheet 1 of 2)

(SECURITY CLASSIFICATION)

- (2) Relative combat power
- (a) Enemy
1. Strength
 2. Composition
 3. Location and disposition
 4. Reinforcements
 5. Logistics
 6. Time and space factors
 7. Combat efficiency
- (b) Friendly
1. Strength
 2. Composition
 3. Location and disposition
 4. Reinforcements
 5. Friendly force assistance
 6. Logistics
 7. Time and space factors
 8. Combat efficiency.

b. Enemy capabilities. (3*). State the enemy capabilities which can affect the accomplishment of the commander's mission.

c. Own Courses of Action. State all practicable courses of action open to the commander which, if successful, will accomplish the mission.

3. ANALYSIS OF OPPOSING COURSES OF ACTION

Determine the probable effect of each enemy capability on the success of each of the commander's own courses of action.

4. COMPARISON OF OWN COURSES OF ACTION

Weigh the advantages and disadvantages of each of the commander's courses of action with respect to the governing factors. Decide which course of action promises to be the most successful in accomplishing the mission.

5. DECISION

Translate the course of action selected into a concise statement of what the force as a whole is to do, and so much of the elements of when, where, how, and why as may be appropriate.

(Signed) _____
Commander

ANNEXES: As Required

DISTRIBUTION:

(3*) Obtained from intelligence estimate of the situation.

(SECURITY CLASSIFICATION)

Figure A-1. UNAAF Format for a Commander's Estimate of the Situation (Sheet 2 of 2)

(SECURITY CLASSIFICATION)

Issuing Headquarters
 Place
 Day,Month,Year,Hour,Zone

INTELLIGENCE ESTIMATE OF THE SITUATION

References: Maps, charts, and relevant documents

1. MISSION

State the assigned task and its purpose

2. ENEMY SITUATION

State conditions which exist and indicate the effect of these conditions on enemy capabilities and the assigned mission.

a. Characteristics of the Area of Operations

- (1) Military Geography
 - (a) Topography
 - (b) Hydrography
 - (c) Climate and weather
- (2) Transportation
- (3) Telecommunications
- (4) Politics
- (5) Economics
- (6) Sociology
- (7) Science and technology

b. Enemy Military Situation (ground, naval, air, service)

- (1) Strength
- (2) Composition
- (3) Location and disposition
- (4) Availability of reinforcements
- (5) Movements and activities
- (6) Logistics

(SECURITY CLASSIFICATION)

Figure A-2. UNAAF Format for an Intelligence Estimate of the Situation (Sheet 1 of 2)

(SECURITY CLASSIFICATION)

- (7) Operational capability to launch missiles
- (8) Serviceability and operational rates of aircraft
- (9) Operational capabilities of combatant vessels
- (10) Technical characteristics of equipment
- (11) Electronics intelligence
- (12) Nuclear and CB weapons
- (13) Significant strengths and weaknesses

c. Enemy Unconventional and Psychological Warfare Situation

- (1) Guerilla
- (2) Psychological
- (3) Subversive
- (4) Sabotage

3. ENEMY CAPABILITIES

List separately each enemy capability which can interfere with the accomplishment of the assigned mission.

4. ANALYSIS OF ENEMY CAPABILITIES

Analyze each capability in light of the assigned mission, considering all applicable factors from paragraph 2, above, and attempt to determine and give reasons for the relative order of probability of adoption by the enemy. Discuss enemy vulnerabilities.

5. CONCLUSIONS

Conclusions resulting from discussion in paragraph 4, above, and including when possible a concise statement of the effects of each enemy capability on the accomplishment of the assigned mission. Cite enemy vulnerabilities where applicable.

(Signed) _____

(I-2)

ANNEXES: As desired

DISTRIBUTION:

NOTE: Omit or add sub-paragraph as applicable

(SECURITY CLASSIFICATION)

Figure A-2. UNAAF Format for an Intelligence Estimate of the Situation (Sheet 2 of 2)

(SECURITY CLASSIFICATION)

 COPY NO. _____
 Issuing Headquarters
 Place of Issue
 Date/Time Group of Signature

 CAMPAIGN PLAN FOR THE – COMMAND (AREA)
 (Number or Code Name)

References: Maps, charts, and relevant documents

1. SITUATION

Give briefly the general picture, so that recipients of the plan will understand the overall situation under the following headings:

- a. **Directive.** Provide a resume of data contained in the directive received from high authority which is pertinent to the plan.
- b. **Enemy Forces.** Provide a summary of the pertinent intelligence data, including information on the composition, disposition, location, movements, estimated strength, identification, and capabilities of enemy forces. Assumed information should be separated from factual data. References may be made to the intelligence annex.
- c. **Friendly Forces.** State here information of friendly forces other than those covered by the campaign plan which may directly affect the action of the command.
- d. **Assumptions.** State here assumptions applicable to the plan as a whole.

2. MISSION

State clearly and concisely the task of the commander and its purpose.

3. OPERATIONS

- a. **Concept.** State the broad concept for employment of major forces in the command during the operations as a whole.
 - (1) Scheme of maneuver
 - (2) Phases of operations
 - (3) Timing
- b. **Phase I**
 - (1) Tasks
 - (2) Concept. Include scheme of maneuver and time for this phase
 - (3) Forces required
 - (a) Army
 - (b) Navy
 - (c) Air Force
 - (d) Marine Corps
- c. **Phase II, etc.** Cite information as stated in paragraph b, above, for this and any subsequent phases. Provide a separate phase for each step in the campaign at the end of which a reorganization of forces may be required and another action initiated.
- d. **Coordinating Instructions.** If desired, instructions applicable to two or more phases or multiple elements of the command may be placed in a final sub-paragraph.

(SECURITY CLASSIFICATION)

Figure A-3. UNAAF Format for a Campaign Plan (Sheet 1 of 2)

(SECURITY CLASSIFICATION)**4. LOGISTICS**

Brief, broad statements of logistic information or instructions applicable to the campaign under the following sub-paragraphs, as appropriate. May be issued separately and referenced here.

- a. Supply Aspects
- b. Maintenance and Modifications
- c. Medical Service
- d. Transportation
- e. Base Development
- f. Personnel
- g. Foreign Military Assistance
- h. Administrative Management

5. COMMAND AND SIGNAL

a. Command. State generally command relationship for the entire campaign or any portion thereof. Indicate any shifts of command contemplated during the campaign, indicating time of the expected shift. Give location of commander and command posts.

b. Signal

- (1) Communications. Plans of communications. May refer to a standard plan or be contained in an annex. Include zone time to be used; rendezvous, recognition, and identification instructions; code words; code names; liaison instructions; and axis of signal communications as appropriate.
- (2) Electronics. Plans of electronics systems. May refer to standard plan or may be contained in an annex. Include electronic policy and such other information as may be appropriate.

(Signed) _____
(Commander)

ANNEXES: As required
DISTRIBUTION:

(SECURITY CLASSIFICATION)

Figure A-3. UNAAF Format for a Campaign Plan (Sheet 2 of 2)

(SECURITY CLASSIFICATION)

HEADQUARTERS
UNITED STATES EUROPEAN COMMAND
APO NEW YORK 09128

(date)

SUBJECT: USCINCEUR OPLAN 4999 (U)

SEE DISTRIBUTION (Annex Z)

1. () Forwarded herewith is USCINCEUR OPLAN 4999 (U) which provides for the defense of (geographic area) in general war.
2. () This plan fulfills a requirement established in (paragraph, reference).
3. (U) This plan is effective for planning purposes only until approved by the Joint Chiefs of Staff. USCINCEUR OPLAN (Plan Identification Number (PIN)) will be retained for possible execution pending notification that this plan has been approved. (UPON approval by the Joint Chiefs of Staff, this paragraph is changed to read: "This plan has been approved by the Joint Chiefs of Staff and is effective for planning on receipt and for execution when directed. USCINCEUR OPLAN (PIN) is superseded and will be disposed of in accordance with applicable security directives.")
4. (U) Elements of this plan were coordinated during preparation with CINCLANT, CINCPAC, USCINRED and the Commander, Military Airlift Command.
5. (U) Supporting plans listed in subparagraph 3d, Plan Summary, will be prepared and forwarded to this headquarters for review within 60 days after approval of this plan by the Joint Chiefs of Staff.
6. (U) When separated from the Enclosure, this letter is downgraded to (proper classification).

FOR THE COMMANDER IN CHIEF:

s/

t/

Major General USAF
Director, J-5

(SECURITY CLASSIFICATION)

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 1 of 13)

(SECURITY CLASSIFICATION)

Headquarters, US European Command
 APO New York 09128
 (date)

USCINCEUR OPLAN 4999 (U)
 SECURITY INSTRUCTIONS (U)

1. () The long title of this plan is USCINCEUR OPLAN 4999 - (Long Title) (). The short title is USCINCEUR OPLAN 4999 (U).
2. () This document is classified (overall classification) to protect information revealing operational plans of US military forces. Information contained herein will be disseminated only to those agencies and personnel whose official duties specifically require knowledge of the plan, including those required to develop supporting plans.
3. (U) The information contained in this document is disseminated on a "special handling required—not releasable to foreign nationals" basis.
4. (U) This document contains information affecting the national defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C., Sections 793 and 794. The transmission or revelation of information contained herein, in any manner, to an unauthorized person is prohibited by law.
5. (U) Reproduction of this document in whole or in part without permission of this headquarters is prohibited except as required for the preparation of supporting plans.

RECORD OF CHANGES*

CHANGE NUMBER	COPY NUMBER	DATE ENTERED	POSTED BY

*May be a separate page if desired.

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 2 of 13)

(SECURITY CLASSIFICATION)

Headquarters, US European Command
 APO New York 09128
 (date)

USCINCEUR OPLAN 4999 (U)
PLAN SUMMARY (U)

1. () PURPOSE

Provide a concise description of the purpose to be achieved by executing the plan. The statement of purpose should refer to the task assignment in the JSCP which is fulfilled by the plan. If this is a supporting plan, the plan which it supports should be indicated, including, when applicable, plans prepared by commanders of allied forces.

2. () CONDITIONS FOR EXECUTION

a. This paragraph summarizes the politico-military situation in which implementation of the new plan should be considered.

b. Include a statement substantially as follows: "This summary provides military decision makers a brief recapitulation of the major aspects of this plan. It is based on planning factors and estimates available at the time of preparation and subject to modification in the context of a specific contingency. The information contained herein should be reviewed and, if necessary, updated prior to use in adopting courses of action in a particular situation."

3. () OPERATIONS TO BE CONDUCTED

a. Deployment. Summarize the intertheater and intratheater movements of forces which are necessary to place combat forces in the area of operations. When applicable, include anticipated deployments and cover and deception (C and D) activities to be carried out prior to full implementation of the plan.

b. Employment. Indicate the general nature of combat operations to be conducted, including C and D and nuclear operations when applicable.

c. Forces Assigned. Summarize the major combat forces assigned to this operation in terms of those available within the command area and augmentations required from other sources.

d. Supporting Plans. List requirements for supporting plans to be prepared by subordinate and supporting commands or agencies.

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 3 of 13)

(SECURITY CLASSIFICATION)

Headquarters, US European Command
APO New York 09128
(date)USCINCEUR OPLAN 4999 (U)
SECURITY INSTRUCTIONS (U)4. () TIME TO COMMENCE EFFECTIVE OPERATIONS

Include a table showing the time-phased build-up of combat forces in the objective area. The table will show the elapsed time, following an order to implement the plan, when each significant level of combat force required by the plan could commence effective operations in the objective area. The lowest level of force reported will be the smallest unit which could initiate effective operations. Successively higher force levels will be listed, up to the maximum level called for in the basic plan. List any assumptions applied in preparing this table which are not specified in the plan. For additional instructions see Chapter IV (JOPS, Vol. I).

5. () COMMAND RELATIONSHIPS

Summarize the command arrangements to be employed in executing the plan.

6. () LOGISTIC APPRAISAL

Provide an estimate of logistic feasibility as described in (JOPS) Volume II, Annex D, subparagraph 7c(1).

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(SECURITY CLASSIFICATION)

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 4 of 13)

(SECURITY CLASSIFICATION)

Headquarters, US European Command
 APO New York 09128
 (date)

USCINCEUR OPLAN 4999 (U)
TABLE OF CONTENTS (U)

CONTENTS	PAGE NO.
Security Instructions	i
Plan Summary	ii thru iii
Table of Contents	iv thru vii
Basic Plan	1 thru 3
ANNEX A, TASK ORGANIZATION	A-1 (not shown)
Appendix 1, Time-Phased Force and Deployment List	A-1-1 (not shown)
ANNEX B, INTELLIGENCE	B-1 (not shown)
Appendix 1, Essential Elements of Information	B-1-1 (not shown)
Appendix 2, Signal Intelligence	B-2-1 (not shown)
Appendix 3, Counterintelligence	B-3-1 (not shown)
Appendix 4, Target List	B-4-1 (not shown)
Appendix 5, Mapping, Charting and Geodesy	B-5-1 (not shown)
ANNEX C, OPERATIONS	C-1 thru C-3
Appendix 1, Nuclear Operations	C-1-1 (not shown)
Appendix 2, Chemical Warfare and CBR Defense Operations	C-2-1 (not shown)
Appendix 3, Electronic Warfare Operations	C-3-1 (not shown)
Appendix 4, Psychological Operations	C-4-1 (not shown)
Appendix 5, Unconventional Warfare Operations	C-5-1 (not shown)
Appendix 6, Search and Rescue Operations	C-6-1 (not shown)
Appendix 7, Cover and Deception Operations	C-7-1 (not shown)
ANNEX D, LOGISTICS	D-1 (not shown)
Appendix 1, Petroleum, Oil, and Lubricants Supply	D-1-1 (not shown)
Tab A—Estimate of POL Requirements	D-1-A-1 (not shown)
Appendix 2, Graves Registration	D-2-1 (not shown)

IV

(SECURITY CLASSIFICATION)

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 5 of 13)

(SECURITY CLASSIFICATION)

USCINCEUR OPLAN 4999 (U)

Headquarters, US European Command
 APO New York 09128
 (date)

CONTENTS

PAGE NO.

Appendix 3, Medical Services	D-3-1 (not shown)
Tab A—Aeromedical Evacuation Pickup Points	D-3-A-1 (not shown)
Tab B—USEUCOM Joint Medical Regulating Office	D-3-B-1 (not shown)
Tab C—Joint Whole Blood Control Agency	D-3-C-1 (not shown)
Tab D—Consolidated Time-phased Bed Requirements	D-3-D-1 (not shown)
Appendix 4, Mobility/Transportation	D-4-1 (not shown)
Tab A—Mobility Support Facilities	D-4-A-1 (not shown)
Enclosure 1—Airfield Characteristics	D-4-A-1-1 (not shown)
Enclosure 2—Key Rail Line Characteristics	D-4-A-2-1 (not shown)
Enclosure 3—Road Characteristics	D-4-A-3-1 (not shown)
Enclosure 4—Seaport Characteristics	D-4-A-4-1 (not shown)
Tab B—Time-Phased Transportation Requirement List	D-4-B-1 (not shown)
Appendix 5, Base Development Plan	D-5-1 (not shown)
Tab A—Analysis of Requirements	D-5-A-1 (not shown)
Tab B—Integrated Time-Phased Construction Projects	D-5-B-1 (not shown)
Tab C—Consolidated Construction Material Requirements	D-5-C-1 (not shown)

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 6 of 13)

(SECURITY CLASSIFICATION)

USCINCEUR OPLAN 4999 (U)

CONTENTS

PAGE NO.

Tab D—Construction Force Analysis	D-5-D-1 (not shown)
Tab E—Map of Operations Area Showing Bases	D-5-E-1 (not shown)
Appendix 6, Nonnuclear Ammunition	D-6-1 (not shown)
Tab A—Estimate of Ammunition Requirements	D-6-A-1 (not shown)
ANNEX E, PERSONNEL	E-1 (not shown)
Appendix 1, Enemy Prisoners of War, Civilian Internees, and Other Detained Persons	E-1-1 (not shown)
ANNEX F, PUBLIC AFFAIRS	F-1 (not shown)
Appendix 1, Personnel Requirements	F-1-1 (not shown)
Appendix 2, Equipment Requirements	F-2-1 (not shown)
ANNEX G, CIVIL AFFAIRS	G-1 (not shown)
ANNEX H, ENVIRONMENTAL SERVICES	H-1 (not shown)
*	
ANNEX J, COMMAND RELATIONSHIPS	J-1 (not shown)
Appendix 1, Command Relationships Diagram	J-1-1 (not shown)
ANNEX K, COMMUNICATIONS-ELECTRONICS	K-1 (not shown)
*	
ANNEX X, EXECUTION CHECKLIST	X-1 (not shown)
ANNEX Z, DISTRIBUTION	Z-1 (not shown)

*The letters "I" and "O" are intentionally omitted as Annex designations.

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 7 of 13)

(SECURITY CLASSIFICATION)

Headquarters, US European Command
 APO New York 09128
 (date)

USCINCEUR OPLAN 4999—(Long Title) ()

(U) REFERENCES: List any maps, charts, or documents essential to an understanding of the basic plan.

(U) TASK ORGANIZATION: ANNEX A

1. () SITUATION:

a. General. Describe the general politico/military environment which would establish the probable pre-conditions for execution of the plan.

b. Enemy. Identify the forces that are expected to oppose the execution of the plan and appraise their general capabilities. ANNEX B should be referred to for details; however, the subparagraph should provide the information essential to a clear understanding of the magnitude of the hostile threat.

c. Friendly

(1) Describe the operations of external forces, other than those tasked to support this operation, which could have a direct significant influence on the operations envisaged in this plan.

(2) List the specific tasks of friendly forces, commands, or governmental agencies which will directly support the execution of this plan.

d. Assumptions. List the assumptions on which the plan is based. The assumptions listed should be either those conditions which are most likely to exist or other probable conditions which, should they occur, would have a significant impact on this plan or supporting plans. Assumptions normally state expected conditions over which the commander has no control. Those included must be directly relevant to the development of this plan and should express conditions which, should they not occur as expected, would invalidate the entire OPLAN or its concept of operations. Additional assumptions relevant to specific aspects of the operation are included in appropriate annexes.

2. () MISSION:

State concisely the task and purpose to be accomplished by executing this plan. The mission stated should be that of the commander originating the plan; it may be the task assigned by the Joint Chiefs of Staff or it may be deduced from the commander's estimate based on a task assigned by the Joint Chiefs of Staff.

3. () EXECUTION:

a. Concept of Operations. It is preferable that the entire concept of operations be included in the basic plan. However, some OPLANs necessarily encompass alternative courses of action for accomplishing the mission, and others require considerable detail to convey adequate guidance for the development of supporting plans. Accordingly, the entire concept may be placed in ANNEX C.

(1) General

The concept of operations is derived from the commander's decision arrived at through his estimate of the situation. The estimate states how the commander intends to accomplish his mission, including the forces involved, the time-phasing of operations, as appropriate, the general nature and purpose of operations to be

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 8 of 13)

(SECURITY CLASSIFICATION)

USCINCEUR OPLAN 4999—(Long Title)

conducted, and the interrelated or cross-Service support, coordination, and cooperation necessary to successful execution of the planned operations. The concept of operations should be sufficiently developed to include an estimate of the level and duration of conflict to provide supporting and subordinate commanders a basis for preparing adequate plans. The concept should show how security will be maintained and surprise achieved. Reference should be made to ANNEX A for detailed force requirements.

(2) Deployment

The requirements to deploy forces from their normal peacetime locations to the area of operations are summarized. Such deployments may include those to be carried out within the command area as well as deployments of augmentation forces. Particular attention should be given to anticipatory deployments which may be required in order to implement and to support fully the plan when directed. Consideration should also be given to the deployment of rapid reaction forces as a partial implementation of the plan and to C and D measures required to provide security, mislead the enemy, and achieve surprise.

(3) Employment

Without unduly encroaching on the authority of component and supporting commanders, the concept describes how the deployed forces are to be tactically employed. The concept should clearly outline plans for the use of nuclear and chemical munitions/agents if any. Plans to conduct supporting operations—unconventional, psychological, EW, SAR, C and D—should be indicated by reference to appropriate appendices of ANNEX C.

b. Tasks. In separate numbered sub-subparagraphs, list the tasks assigned to each element of the support command. Each task should be a concise statement of a mission to be performed either in further planning for the operation or in execution of the plan. The task assignments should encompass all actions which subordinate elements must perform in order to fulfill the concept of operations, except C and D actions which must be tasked separately. When the plan requires the establishment of a subordinate joint force, tasks are assigned to the component commanders and to subordinate joint force commanders, as appropriate. The support which each component is expected to provide for another is stated.

c. Coordinating Instructions. The final subparagraph lists in numbered sub-subparagraphs the instructions, applicable to the entire command or two or more elements of the command, which are necessary for proper coordination of the operation and are not appropriate to include in a particular annex. Coordinating instructions establish, in particular, the conditions for executing the plan. Terms pertaining to the timing of execution and deployments should be explained, as should other operational terms which appear in the plan and are not defined in publications of the Joint Chiefs of Staff. Refer to ANNEX X.

4. (U) LOGISTICS AND ADMINISTRATION:

a. Concept of Support. The major portion of guidance on service support normally is contained in a series of detailed annexes. In order to provide a general understanding of the requirements for logistic support, personnel policies, and administrative plans, this subparagraph provides broad guidance as to how such support is to be furnished. Additional subparagraphs refer to the annexes which provide detailed guidance on each major aspect of support.

b. Logistics, ANNEX D.

c. Personnel, ANNEX E.

d. Public Affairs, ANNEX F.

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 9 of 13)

(SECURITY CLASSIFICATION)

USCINCEUR OPLAN 4999—(Long Title)

- e. Civil Affairs, ANNEX G.
- f. Environmental Services, ANNEX H.
- g. Mapping, Charting, and Geodesy, ANNEX M.

5. () COMMAND AND SIGNAL:

- a. Command Relationships, ANNEX J.
- b. Command Posts. List the designations and locations of each major headquarters involved in executing the plan. When headquarters are to be deployed, or the OPLAN provides for the relocation of the headquarters to an alternate command post, indicate the location and time of opening and closing each headquarters.
- c. Succession to Command. Designate in order of succession the headquarters responsible for assuming command of the operation in specific applicable circumstances.
- d. Signal
 - (1) Communications. Provide a general statement of the scope and type of communications applicable to the operation. Refer to ANNEX K for details.
 - (2) Electronics. Provide a statement indicating the scope and employment of electronics systems applicable to the operation. Refer to ANNEX K for details.

t/
General
Commander in Chief

ANNEXES: (List only those actually used)

- | | | | |
|---|-------------------|---|--------------------------------|
| A | TASK ORGANIZATION | H | ENVIRONMENTAL SERVICES |
| B | INTELLIGENCE | J | COMMAND RELATIONSHIPS |
| C | OPERATIONS | K | COMMUNICATIONS-ELECTRONICS |
| D | LOGISTICS | L | OPERATIONS SECURITY |
| E | PERSONNEL | M | MAPPING, CHARTING, AND GEODESY |
| F | PUBLIC AFFAIRS | X | EXECUTION CHECKLIST |
| G | CIVIL AFFAIRS | Z | DISTRIBUTION |

OFFICIAL:
s/
t.
Major General
Director, J-5

(SECURITY CLASSIFICATION)

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 10 of 13)

(SECURITY CLASSIFICATION)

HEADQUARTERS
UNITED STATES EUROPEAN COMMAND
APO NEW YORK 09128

(date)

ANNEX C TO USCINCEUR OPLAN 4999 (U)
OPERATIONS (U)

(U) REFERENCES: List other plans, SOPS (standing operating procedures) and doctrinal guidance to be followed in the conduct of combat or combat support operations.

1. () GENERAL:

a. Purpose. This annex provides guidance for the conduct of combat and combat support operations. It will not normally be issued separately from the basic plan.

b. Mission. See basic plan.

c. Alliance Plans. Operations envisaged in this plan will be conducted in accordance with:

(1) SACEUR's Alert System

(2) SACEUR's GDP (General Defense Plan)

(3) SACEUR's GSP (General Strike Plan)

d. Areas of Operations. The area of operations encompassed by this plan includes the land, sea, and airspace of the US European Command as defined in (reference). No combat operations will be conducted in (areas) without prior approval of this headquarters. Reconnaissance and surveillance operations are authorized in the additional (geographic areas).

2. () CONCEPT OF OPERATIONS:

The concept of operations is normally included in the basic plan. However, when lengthy and detailed, it may be placed here. In that case, the format and content are similar to the concept of operations in the basic plan.

3. () CONDUCT OF OPERATIONS:

This paragraph furnishes any guidance required for the conduct of specific combat operations.

a. Readiness, Alert, and Marshaling

(1) Readiness. Establish criteria to govern the readiness of forces employed in the plan.

(2) Alert. Estimate the conditions of warning likely to precede an order to execute the plan. Identify the system to be used for alerting the force.

C-1

(SECURITY CLASSIFICATION)

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 11 of 13)

(SECURITY CLASSIFICATION)

ANNEX C TO USCINCEUR OPLAN 4999 (U)

(3) Marshaling or Dispersal. Provide guidance as to requirements for changes in normal deployments of forces, including air and naval units and merchant shipping when applicable.

b. Rules of Engagement. State any special rules of engagement applicable to this operation and, when appropriate, refer to those promulgated separately.

c. Air Operations. Establish the system to be used for the control and coordination of offensive air operations.

d. Aerospace/Air Defense Operations. Establish the system to be used for the control and coordination of aerospace/air defense operations.

e. Amphibious Operations. Provide guidance for the control and coordination of any amphibious operations envisaged in the plan.

f. Antisubmarine Warfare Operations. Provide guidance for the control and coordination of ASW operations.

g. Counterinsurgency. If applicable, refer to pertinent country internal defense plans.

h. Nuclear. Indicate whether the employment of nuclear weapons is contemplated. If so, refer to Appendix 1 of this annex. If not, indicate the degree of readiness for the employment of nuclear weapons to be sustained by forces committed to this operation.

i. Chemical Warfare. Indicate whether offensive employment of chemical weapons is contemplated. If so, refer to Appendix 2 of this ANNEX.

j. Electronic Warfare. Appendix 3 of this ANNEX.

k. Psychological Operations. Appendix 4 of this ANNEX.

l. Unconventional Warfare. Appendix 5 of this ANNEX.

m. SAR. Appendix 6 of this ANNEX.

n. C&D. C&D operations are covered in a separate plan or a separately distributed Appendix 7 to this ANNEX.

o. OPSEC. Provide necessary general instructions to insure that OPSEC is maintained. List the aspects of the operation which must be withheld from the enemy on a time-phased basis geared to the operational concept. Specific OPSEC measures may be included in other annexes, as appropriate.

4. () OPERATIONAL CONSTRAINTS:

List any constraints to the conduct of combat operations which are not enumerated elsewhere.

C-2

(SECURITY CLASSIFICATION)

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 12 of 13)

(SECURITY CLASSIFICATION)

ANNEX C TO USCINCEUR OPLAN 4999 (U)
OPERATIONS (U)

5. () LIMITING FACTORS:

Estimate the impact of any operational limiting factors and indicate how the concepts of operations and tasks to subordinate commanders would be modified if these factors should be overcome.

t/
General
Commander in Chief

Appendices:

- 1 - Nuclear Operations
- 2 - Chemical Warfare and CBR Defense Operations
- 3 - EW Operations
- 4 - Psychological Operations
- 5 - Unconventional Warfare
- 6 - Search and Rescue Operations
- 7 - Cover and Deception Operations
- 8 - Rules of Engagement
- 9 - Reconnaissance

OFFICIAL:

s/
t/
Major General
Director, J-3

C-3

(SECURITY CLASSIFICATION)

Figure A-4. JOPS Operation Plan in Complete Format (JOPS OPLAN) (Sheet 13 of 13)

(SECURITY CLASSIFICATION)	COPY NO. _____ Issuing Headquarters Place of Issue (may be in code) Date/Time Group of Signature Message Reference Number
(Changes from verbal orders, if any)	
TYPE AND SERIAL NUMBER OF OPERATION ORDER	
References: Maps, charts, and relevant documents	
Time zone used throughout the order: (if not necessary, omit)	
Task Organization:	
This information may be given either here or in paragraph 3.	
Under this heading as appropriate give the subdivision of the force, including attached units, together with the names and ranks of the commanders.	
1. <u>Situation</u>	
Give briefly the general picture, so that subordinate commanders will understand the current situation under the following headings:	
a. Enemy Forces. Composition, disposition, location, movements, estimated strengths, identification and capabilities.	
b. Friendly Forces. Information of friendly forces other than those covered by the operation order which may directly affect the action of subordinate commanders.	
c. Attachments and Detachments. When not given under Task Organization, list here units attached to or detached from the issuing unit (or formation) by this order together with the times they are effective.	
2. <u>Mission</u>	
A clear, concise statement of the task of the commander and its purpose.	
3. <u>Execution</u>	
In the first sub-paragraph give a summary of the overall course of action intended. In subsequent sub-paragraphs, assign specific tasks to each element of the command charged with the execution of tactical duties, give details of coordination and the task organization/grouping, if not already included under the heading "Task Organization." If desired, instructions applicable to two or more elements of the command may be placed in a final sub-paragraph headed "Coordinating Instructions."	
4. <u>Administration and Logistics</u>	
Contains a statement of the administrative and logistical arrangements applicable to the operation. If lengthy, or not ready for inclusion in the operation order, may be issued separately and referenced here.	
(SECURITY CLASSIFICATION)	

Figure A-5. UNAAF Format for an Operation Order (Sheet 1 of 2)

(SECURITY CLASSIFICATION)

5. Command and Signal

Contains signal, recognition and identification instructions, electronic policy, headquarters locations and movements, code words, code names, and liaison.
Acknowledgement Instructions

Signature of Commander

ANNEXES:
DISTRIBUTION:
AUTHENTICATION:

(SECURITY CLASSIFICATION)

Figure A-5. UNAAF Format for an Operation Order (Sheet 2 of 2)

CODE WORD	INFORMATION	ADDRESSEES	ORIGINATOR	OCCASION
OPGEN A	General	All ships/TG and appropriate shore authorities	OTC/CTG	As required
OPGEN B	AAW details	All AAW units concerned and appropriate shore authorities	OTC/AAWC	Daily or more frequently if required
OPGEN C	Helicopter tasking (OTC to Air Coordinator)	Action to Air Coordinator	OTC/CTG	Normally by 1800Z daily, not used if OTC retains duty of Air Coordinator
OPGEN D	ASUW policy	All units in the force, cooperating force commanders	OTC/SWC	As required
OPGEN E	ASUW policy (when cooperating with FPBs)	All units concerned, cooperating force commanders	OTC/SAG Commander/SO FPB	As required
OPGEN F	Helicopter tasking (Air Coordinator to units)	AAW, ASW, SW, and screen commanders; carriers; helicopter equipped ships; and screen ships. Information to OTC.	Air Coordinator	Normally by 2000Z daily
OPGEN G	ASW policy	All units in the force, cooperating force commanders	OTC/ASWC	As required
OPGEN H	Helicopter and controller availability	OTC and Air Coordinator	Ships with helicopters embarked or with aircraft control capability	Presailing, on joining, and when changes occur in original OPGEN H

Figure A-6. OPGEN Message Formats (APP 4) (Sheet 1 of 3)

CODE WORD	INFORMATION	ADDRESSEES	ORIGINATOR	OCCASION
OPGEN I	Intelligence policy and tasking	All units in force	OTC	Presailing, updated as required
OPGEN J	AAW policy	All units in the force, cooperating force commanders	OTC/AAWC	As required
OPGEN K	Surface ship operating details	OTC	Joining ship	Presailing, on joining, and when changes occur
OPGEN KK	Task force details	Joining surface ship	OTC	When joining unit makes rendezvous with TF/TG
OPGEN L	Link 11	All Link 11 fitted units participating in Link 11 net, appropriate shore authorities and buffer sites	OTC/CTG	As required
OPGEN M	Guidance and tasking for amphibious forces	CTGs concerned, amphibious task force, landing force, supporting force	CCATF/CATF	At least 72 hours prior to respective operation(s)
OPGEN N	Tactical information on minelaying operations	OTC of covering force, all units participating, common superior	OTC of mine-laying force	As required
OPGEN O	Protection MCM forces	OTC of covering units, participating units, common superior	OTC of MCM forces	As required

Figure A-6. OPGEN Message Formats (APP 4) (Sheet 2 of 3)

CODE WORD	INFORMATION	ADDRESSEES	ORIGINATOR	OCCASION
OPGEN P	OTC directives and intentions	All TF/TG units, cooperating CTFs/CTGs, appropriate shore authorities	OTC	As required
OPGEN PI	OTC instructions to delegated commanders and to own and cooperating forces	All TF/TG units, cooperating CTFs/CTGs	OTC	As required
OPGEN Q	NBC policy	All TF/TG units, cooperating CTFs/CTGs	OTC	As required
OPGEN R	OTC's communication instructions	All TF/TG units	OTC	Pre-sailing and as required
OPGEN S	Tactical information for SSN(DS)	All SSN(DS) under control; SUBOPAATH and cooperating commanders, if appropriate	Officer exercising tactical control of SSN(DS)	As required
OPGEN X	Link 10	All Link 10 fitted units participating in link 10 net	OTC/Link 10 data net control ship	As required
OPGEN Z	Nuclear ASW weapon use	All units/TG and area commander	OTC/CTG	As required

Figure A-6. OPGEN Message Formats (APP 4) (Sheet 3 of 3)

A.2 COMMANDER'S ESTIMATE OF THE SITUATION

The commander's estimate of the situation is important to all phases of the military planning process. It is the foundation for preparing the operation plan and operation order (directive) that are covered in detail in Chapters 3 and 4.

A.2.1 General. Every military operation should have a definite aim. All tasks assigned incident to an operation are contributory to this end. A commander's mission, as conveyed in orders or instructions from higher authority, should require the adoption of a positive course of action that will meet the situation confronting his command. The course of action adopted should be the result of a sound decision based on a timely and proper estimate of the situation.

A.2.2 Purpose of the Estimate. The purpose is to ensure that the commander gives due consideration to all factors in the situation, including enemy capabilities (actions open to the enemy which may interfere with the accomplishment of the commander's mission), to the end that he may adopt a course of action which:

1. If successful, permits accomplishment of his mission
2. Offers the best prospects of success.

If more than one course of action meets these requirements equally, that one should be adopted which most favors future action.

A.2.3 Elements of the Estimate. The following discussion relates to the paragraphs of the commander's estimate of the situation.

A.2.3.1 Mission (Step 1). A commander's mission is derived in one of two ways:

1. Set forth in the orders or instructions received from higher authority. In this case,

the commander must give careful consideration to the wording of the orders or instructions which he has received to be certain that he clearly understands the intent of his superior.

2. Deduced by him from his instructions and his knowledge of the situation. In this case, he must be certain that the mission he deduces will contribute to the accomplishment of the mission of his superior.

The mission is the actuating factor of the estimate. It is a statement of the task and its purpose.

A.2.3.2 Situation and Courses of Action (Step 2)

A.2.3.2.1 Purpose. To determine the following:

1. The physical capabilities of the enemy that could interfere with the accomplishment of the mission
2. All of the reasonable and practicable courses of action open to the commander that, if successful, would permit the accomplishment of the mission.

Enemy capabilities and a commander's own possible courses of action are arrived at by first considering the possible effects of the factors of the situation which might favor or hinder his own course of action or the enemy's actions.

A.2.3.2.2 Sequence of Factors. Factors are usually considered in the order of their importance in the given situation. The consideration of each factor includes:

1. A statement of the existing situation about the factor.
2. A deduction as to the probable consequences. The deductions indicate the influence of the facts on the commander's choice of a course of action and on the

physical capabilities of the enemy to act adversely.

3. Following a consideration of all pertinent factors in the situation, those enemy capabilities that the deductions indicate may interfere with the accomplishment of the mission are enumerated and retained for further analysis in connection with the commander's own courses of action. Retained enemy capabilities are listed in their relative order of probability of adoption.

4. The enumeration of the commander's own courses of action that are to be carried forward for analysis and comparison in the light of enemy capabilities. Only those courses of action are retained for further consideration that, if successful, would accomplish or facilitate the accomplishment of the mission. In practice, not more than two or three own courses of action require a complete analysis.

5. Check lists of items to be considered under this paragraph and compiled for the appropriate planning echelons and services.

A.2.3.3 Analysis of Opposing Courses of Action (Step 3). Each of the courses of action that remains for consideration after the conclusions reached in Step 2 is separately weighed in turn against each enemy capability that may interfere with the accomplishment of the mission. The results to be expected in each case are visualized. The advantages and disadvantages of each course of action with respect to the enemy's ability to oppose it are thus determined.

A.2.3.4 Comparison of Own Courses of Action (Step 4). The advantages and disadvantages noted as a result of the analysis made in Steps 2 and 3 for each own course of action are summarized and the various courses of action are compared and weighed. That course of action which appears to offer the greatest prospect of success is selected. If several courses

of action offer equal prospects of success, the one which most favors future action is chosen. The commander formulates his decision accordingly.

A.2.3.5 Decision (Step 5). The decision reached as a result of the estimate of the situation is expressed in the form of a brief statement clearly setting forth the course of action adopted. This decision is then the basis for plans.

A.2.4 The Estimate a Continuing Process.

The formulation of an estimate of the situation is a continuing process for the commander. With each change in the situation, he must review his estimate and decide either to continue the course of action upon which he is proceeding or to make and announce a new decision. For example, when hostile contact is expected, the initial decision may be merely to continue an advance already begun. As information of the enemy is accumulated, the commander may then be able to decide that he will attack. The tactical method of attack may have to be determined later as the situation further develops. On the other hand, when action is urgent, a commander may have to make his complete decision and issue orders in compliance with his mission, regardless of scanty information or a rapidly changing situation.

A.2.5 Extent of the Estimate

A.2.5.1 General. The estimate should be as thorough as the complexity of the situation warrants. It may vary from a short, almost instantaneous, mental estimate, to a carefully written document that requires hours of preparation and the collaboration of various staff officers. For example, in a large command with ample time, Intelligence may be called upon to estimate the hostile situation; Operations may be called upon to estimate the friendly situation; Logistics may be called upon to submit a logistics estimate, expressing the influence of the supply and evacuation factors on the contemplated course of action; and other staff officers may be called upon for estimates

relating to their functions. Portions of these estimates, if approved, may be incorporated in the proper places in the commander's estimate. The estimate should be sufficiently complete to include a determination of enemy capabilities, the courses of action open to the commander, and a consideration of the effect of enemy capabilities on each of the courses of action, before arriving at a decision.

A.2.5.2 Use of the Form for the Commander's Estimate. The form for the commander's estimate establishes a sequence in which the elements of a situation should be considered. When time is not pressing, the form may be physically referred to and a complete written estimate may be made by the commander. When time is pressing, the form may be used as a mental check list to ensure that the commander considers all elements of the situation in arriving at his decision.

A.3 STAFF STUDY

The staff study is a formal paper that comprises a concise analysis and a recommended solution of a problem. To provide the commander with the principal elements in a minimum of space, the staff study is kept brief and detailed substantiation is set forth in appropriate enclosures.

The general format is adapted to the scope of each particular study by eliminating unnecessary sections and renumbering remaining sections consecutively. Suggested form and content are outlined in the following paragraph and in Figure A-7.

A.3.1 Guide for Preparation

A.3.1.1 Heading. The heading includes the security classification, office of origin, the headquarters or command, subject classification number (from SECNAVINST 5210.11), and date and time of preparation.

A.3.1.2 Subject. The subject identifies the study briefly but with sufficient clarity to distinguish it from similar studies or papers.

A.3.1.3 References. List applicable references if four or less, otherwise use a separate annex.

A.3.1.4 Problem. This is a concise and clear statement of what is to be accomplished. It is worded to contain both a task and a purpose. The task is stated as an infinitive phrase, such as "to determine . . ." or "to develop . . .," and is the immediate aim of the study. The purpose begins with the phrase "in order to . . ." and provides the rationale behind the task. To ensure the soundness of the study, care must be taken to state the problem precisely and in simple terms. Should the problem not be as clear as originally stated, the individual responsible for preparing the study should request clarification.

A.3.1.5 Assumptions. Use assumptions with caution. Factual information essential to development of the study frequently may be lacking. In such cases, realistic and positively stated assumptions may be made in order to finish the study. Each of the assumptions then becomes a requirement that must be met if the study is to be valid. Assumptions that do not meet this test should be discarded. Assumptions should only be used to fill gaps in unobtainable but essential information that is fundamental to the completion of the study. This section may be eliminated if no assumptions are pertinent.

A.3.1.6 Facts Bearing on the Problem. List those facts that have a direct bearing on the matter under investigation. They should be so arranged as to facilitate logical development in the discussion which follows. Avoid opinions, speculation, and conclusions. Relevant and established policies or directives of higher authority, however, may be included. If the facts are voluminous, summarize them and make reference to an appropriate annex containing the details. Either here or in the annex, make reference to any regulations, directives,

or other documents from which the cited facts were obtained.

A.3.1.7 Discussion. All factors that bear on the problem, including assumptions if used, are objectively analyzed and evaluated. Since the discussion constitutes the reasoning behind the conclusions that will be stated in the next section, it is a process of progressive logic rather than biased argument. Subjective opinions, when expressed, should be the result of careful consideration and should be labeled as opinions. When considerable discussion is required, it is customary in the interest of brevity to summarize the discussion in the study proper and make reference to an annex containing the complete and detailed discussion. Always consider the reaction of the persons for whom the study is intended. The study is for their benefit and the discussion should be developed so that it can be understood by all readers.

A.3.1.8 Conclusions. Conclusions are derived logically from the analysis made in the discussion. Care must be taken that the conclusions are supported adequately by the discussion and that no new material is presented. State conclusions in a straightforward manner, without use of justifying clauses.

A.3.1.9 Recommendations. Recommended actions stem from and must be in consonance with the conclusions. Prepare them in clear, concrete, and positive statements that meet the tests of suitability, feasibility, and acceptability. Letters or directives to implement the recommendations are an integral part of the study. Include them as annexes so that only the approval of the commander is needed to initiate the required action. Generally, a recommendation for additional study of the problem or its facets is unacceptable; however, studies are

sometimes undertaken solely to determine how best to attack an extremely complex problem. For example, a set of recommendations prepared at the level of the Department of the Navy might be worded:

"It is recommended that:

1. The memorandum, Annex A, be forwarded to the Secretary of Defense.
2. Upon receipt of the concurrence of the Secretary of Defense, the directive, Annex B, be forwarded to indicated addressees."

A.3.1.10 Closing. The closing includes the signature; a sequence listing of enclosures, appendixes, annexes, tabs, and exhibits; and the concurrences obtained from interested staff members. Action by the reviewing authority is added when taken and where appropriate. For the convenience of the commander, it is good practice in the assembly of complex studies for annexes that require signature to follow immediately after the study proper.

A.3.1.11 Other Opinions. There may be instances in which members of the staff do not concur with portions of the study. Despite the convictions of the writer, complete staff work requires that varying opinions be considered. Include the original statement, the non-concurring view, and an objective evaluation of the points at issue. The opposing opinion may be accepted in whole or in part or it may be rebutted. Normally, accepted amendments and any additional enclosures are incorporated into the original study with appropriate reference to the comment leading to the reconsideration. Only after this section is prepared is the study complete.

(SECURITY CLASSIFICATION)

NAME OF SEA-BASED OR SHORE-BASED COMMAND

STAFF STUDY

TITLE OR SUBJECT OF STAFF STUDY (U)

NAME, GRADE, AND SERVICE
OF THE ACTION OFFICER

APPROPRIATE DOWNGRADING
INSTRUCTIONS FOR CLASSIFIED
STAFF STUDY

(SECURITY CLASSIFICATION)

Figure A-7. Format for a Staff Study (Sheet 1 of 4)

(SECURITY CLASSIFICATION)

Originator's Command
 Headquarters location
 Subject classification number
 (From SECNAVINST 5210.11)
 Date Time Group

STAFF STUDY

Subj: Descriptive title sufficient for identification (U)

Ref: (a) List here references from which facts used
 (b) in the study were obtained. If list exceeds
 (c) four references, place references in an
 (d) enclosure and enter here: See Annex _____
 Bibliography. The bibliography annex is
 attached as the last annex.

1. (U) Problem. A concise statement of the issue to be determined in the form of a task and purpose.
2. (U) Assumption. List here any valid assumptions, which include:
 - a. Factual-type statements of unavailable information, and
 - b. Presuppositions of future eventualities.

Both of these types of assumptions must be vital to the workability of the solution. If there are no assumptions, this paragraph is omitted and the following paragraphs are numbered accordingly.

3. (U) Facts Bearing on the Problem. Summarize in a sequence lending itself to logical development in the Discussion section the principal facts which have a direct bearing on the problem and are documented in the references. This summary shall be factual and devoid of the author's opinions, assumptions, and discussion. Necessary definitions should be included here. If the list is longer than can be fitted into a three-page report or if a more detailed presentation of the facts is required, the additional information shall be placed in an annex.

4. (U) Discussion.
 - a. This is a logical appraisal of the various alternative means by which to solve the stated problem, based upon an objective evaluation of the pertinent facts.
 - b. It should be an orderly combination of factual statements, reasoned opinions, and professional judgments upon which a basis is established for the author's conclusions.
 - c. This section should specify upon which of the criteria of suitability, feasibility, and acceptability one potential solution is preferred before another.
 - d. The background knowledge of the individuals for whom the staff study is intended should be considered in drafting this paragraph, so that it can be condensed to the minimum necessary discussion.

DOWNGRADING AND DECLASSIFICATION INFORMATION

(SECURITY CLASSIFICATION)

Figure A-7. Format for a Staff Study (Sheet 2 of 4)

(SECURITY CLASSIFICATION)

e. If the complexity of the subject necessitates extensive discussion, the essence should be extracted and placed in this paragraph, with a complete discussion attached as an annex. However, all important alternatives must be cited and reasons indicated for their elimination, so that the digested discussion paragraph does not assume the appearance of a biased argument.

5. (U) Conclusions. Listed in concise statements, the opinion of the author is stated as to the best possible solution to the stated problem. Neither further arguments, new information, nor measures by which to implement the conclusions should be implied by the wording of statements in the conclusions.

6. (U) Recommendations. This section is comprised of one or more clear, concise statements of the actions to be taken, based on the conclusions, to effect the proposed solution. Any letters or directives to initiate actions necessary to implement the solution should be cited here and submitted as the first and subsequent enclosures. Thus, only the signature of the approving authority is needed to translate the conclusions of the staff study into required action. As a general rule, recommendations that further studies of the problem be conducted are not acceptable.

(Signed) _____

Name
Grade, Service
Position or Title of Author

(The action officer of a study group or agency signs as author, in the case of a committee-conducted staff study.)

(SECURITY CLASSIFICATION)

Figure A-7. Format for a Staff Study (Sheet 3 of 4)

(SECURITY CLASSIFICATION)

Annexes:

A - List by title all attachments to the body of the staff study. Attachments which implement the
 B - recommendations are listed first and in the order of the recommendations they reflect. Supporting
 C - attachments, if required, shall follow the implementing attachments in the following order:

- a. Assumptions (or additional assumptions)
- b. Additional facts bearing on the problem
- c. Discussion (or additional discussion)
- d. Other background material, as appropriate
- e. Bibliography.

Concurrences:

Interested staff members consulted during the study signify their concurrence in the conclusions and recommendations by signing over their name, grade, service, and title.

Non-concurrences:

The basis of a non-concurrence is briefly stated in two or three lines over the signature, name, grade, service, and title of any staff members consulted during the study. If it is necessary or desired that the reasoning be amplified, the non-concurring party will attach an added annex, and refer to this annex at this point.

Consideration of Non-concurrences:

The author rebuts any non-concurrences in a short paragraph (three or four lines), placing any essential amplification in an added annex which is cited at this point. This paragraph shall identify the basic issue underlying each non-concurrence and the reasons why the non-concurrence cannot be supported.

Annexes Added:

List by titles any annexes added as a result of non-concurrences and consideration of non-concurrences.

Action by Directing Authority:

If the directing authority approves the study, he signs the study at the place (below) where his name, grade, and title appear, and this section is complete. If the study is disapproved, or approved in part, brief instructions as to further action and disposition of the problem are inserted here.

(Signed) _____
 Name
 Grade, Service
 Position or Title

(SECURITY CLASSIFICATION)

Figure A-7. Format for a Staff Study (Sheet 4 of 4)

APPENDIX B

Supplement to Logistic Planning

B.1 LOGISTIC PLANNING INFORMATION

At several points in this publication, the use of logistic planning information has been indicated. Planning information is required at all levels and in every phase of logistic planning. The level and stage of logistic planning determines the form of information.

Generally, long-range and high-level planning requires broad-gauge logistic measurements known as planning factors. Short-range planning requires more exact and detailed logistic data known as logistic basic usage data.

Logistic publications contain highly detailed lists of all types of logistic basic data and logistic planning factors. These types divide generally into three categories.

B.1.1 Information Purely Factual in Nature. This includes such data as ship dimensions, capacities, and sailing distances. Factual information serves as a basis for detailed planning and for assembling information in the next two categories.

B.1.2 Usage Data. These are the rates of production or consumption of a commodity by a specific unit under certain known conditions. They are compiled from past performance where operating conditions are known; for example, the recorded consumption of 450 barrels of fuel oil per day by a ship operating at 15 knots in North Atlantic waters.

B.1.3 Logistic Planning Factors. These are artificial values used to project under specified conditions the future requirements or capabilities of a given organizational unit in terms of men, material, and services. They describe both systems and items, including

aggregations of items. They may be employed for planning either initial movements or resupply. The ultimate purpose of logistic planning factors is to establish, with small effort and good probability, the quantitative relationship between requirements and capabilities. Planning factors are most reliable when tailored to a particular type of operation. Planning factors should be arranged to facilitate simple, rapid, and accurate computations.

B.2 CHARACTERISTICS OF PLANNING FACTORS

The strategic-tactical concept of an operation may be presented in charts and maps on which deployment of forces is shown. The logistic concept, because it is stated in terms of material and service requirements, is not readily presented. The logistic requirements of any concept of an operation or course of action are presented most comprehensively through the use of planning factors — numerical means of relating the logistic support required to the forces assigned in order to provide a balanced operational plan.

Planning factors are valuable only if the logistics planner who uses them knows the conditions under which the usage or expenditure rates (on which planning factors are based) were accumulated. For example, the fact that a certain make of truck will give performance of 16 miles to a gallon of gasoline is useless unless it is known that the rate of consumption is based on a speed of 30 miles an hour.

Planning factors must be tailored according to their use; planning factors designed for use at the area level are too broad for use in a task force. The higher the planning level, the more averaging of conditions and operations is

required in preparing the factors. At lower operational levels, planning factors are usually not used because more accurate results can be obtained from basic usage data.

Planning factors are also a means of promoting understanding, especially between echelons. Lower echelons and commands can more clearly interpret their missions if the higher echelon makes known the planning factors (including judgment factors) used in forming the logistic aspects of the campaign or operation concept.

B.3 LOGISTIC ESTIMATE OF THE SITUATION

The logistic estimate is prepared by the logistics officer of a command to develop the logistical implications of a plan in order to aid in determining the best course of action to accomplish the commander's mission. It is an orderly examination of the influence of supply, hospitalization and evacuation, repair, construction, maintenance, salvage, and related logistic activities on the courses of action being considered by the commander. The logistic estimate is usually in written form because of the detail to be considered. However, the decision as to whether it is expressed orally or in writing depends on the command level at which the planning is done, the size and scope of the operation to be supported, the lead time available, and the amount of detailed data to be considered.

As with other estimates prepared by staff officers, the logistic estimate is seldom published. It is usually incorporated, after approval, in the appropriate places in the commander's estimate. A form for the logistic estimate follows (see Figure B-1). Modifications to this form, to add or delete items, may be made as appropriate.

B.3.1 Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces. Logistic plans of various operational commands and echelons should be as similar as possible in format. Uniformity makes possible ease of communications and cross-reference. The standard logistic form (Figure B-2) follows that of the standard form for a joint logistic plan to support a war plan, contained in Joint Logistics and Personnel Policy and Guidance, JCS Pub 3. In using this form, adhere to paragraph headings as indicated. When a particular heading is not required, and when its omission will not affect the numerical sequence of the order, it should be omitted. When it is necessary to insert a number to preserve numerical sequence, the number should be followed by a dash mark. If additional subparagraphs are required in a particular plan, add them after the last one in the standard form.

When engaged in joint operations with NATO nations, use the NATO Standard Form of a Naval Logistic Annex to Operation Orders (see paragraph B.3.2 and Figure B-3).

Note

Refer to the following when more specific types of information are required: Form for a Logistic Annex in Amphibious Operations and Medical Annex to an Operation Plan (see NWP 22-1).

B.3.2 NATO Standard Form of a Logistic Annex to Operation Orders. The NATO naval logistic annex (Figure B-3) (STANAG 1078) is used by the U.S. Navy only when engaged in joint operations with NATO nations. Use the Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces in all other instances (see paragraph B.3.1 and Figure B-2).

Issuing Headquarters
PLACE
Date, Month, Year, Hour, Zone

Annex (___) to (___) No. (___)

LOGISTIC ESTIMATE OF THE SITUATION

References: Charts, Maps, and Relevant Documents as needed for understanding estimate.
Label each one separately.

1. **MISSION.** Statement of the mission of the command. Indicate proposed course, or courses, of action.
2. **SITUATION AND CONSIDERATION**
 - a. **Own Forces**
 - (1) Present disposition of major elements. Usually shown on an appended situation map.
 - (2) Probable developments to include estimated phases and dates.
 - b. **Enemy**
 - (1) Present disposition of major elements. Usually shown on an appended situation map.
 - (2) Capabilities. Those which, if adopted, will affect the logistic support of the command.
 - (3) Other capabilities. Sabotage, raids, etc., likely to affect logistic support of the command.
 - c. **Characteristics of the Area.** Usually reference is made to an intelligence estimate with only the most important covered in the following subparagraphs:
 - (1) **General Factors**
 - (a) Political and psychological.
 - (b) Economic
 - i. Food
 - ii. Labor
 - iii. Products
 - iv. Finance
 - (2) **Fixed Factors**
 - (a) Hydrography.
 - (b) Terrain.
 - (c) Weather
 - (d) Lines of Communication
 - (e) Health and Sanitation
 - (f) Facilities
 - d. **Assumptions.** Critical points affecting logistical operations.
 - e. **Strengths to be Supported.** Tabular listing of Army, Navy, and Air Force strengths by phases or date periods.
 - f. **Special features.** Considerations not covered such as status of training of logistical support personnel.
3. **LOGISTICAL ANALYSIS.** Within each subparagraph include analysis of each proposed course of action when appropriate, and, in addition to facilities, consider those units which provide logistical support.
 - a. **Supply Aspects**
 - (1) **Requirements.** Subparagraphs on amounts to bring units of the force up to desired levels and the levels to be maintained during the phases of the operation.
 - (2) **Availability.** Consider all sources including captured, salvaged, repaired, local sources, and normal pipelines.
 - (3) **Limiting features.** Include limitations on equipment as well as supply.

Figure B-1. Form for a Logistic Estimate of the Situation (Sheet 1 of 3)

- b. Maintenance and Modification
 - (1) Requirements. Subparagraphs to consider maintenance requirements for ships, aircraft, facilities and materiel.
 - (2) Availability
 - (3) Limiting features. Include limitations on equipment, facilities, and skills.
- c. Medical Services (including dental)
 - (1) Requirements. Evacuation; hospitalization; preventive medicine; assistance to civilians; and special requirements for the treatment of nuclear/CBR casualties.
 - (2) Availability. Include methods and facilities.
 - (3) Limiting features. Include such special implications as diseases.
- d. Transportation
 - (1) Requirements. Subparagraphs to include tonnage and means of movement to mounting areas, movement to objective area, and movement in the objective area.
 - (2) Availability. Include routes, capacities, and capabilities of means.
 - (3) Limiting features. Include time allowed for assault unloading and space limitations for transportation of equipment.
- e. Base Development
 - (1) Requirements. Estimate the need for advance base development considering existing facilities and mobile support forces.
 - (2) Availability. Include the existing facilities available.
 - (3) Limiting features. Include such considerations as extent of resources required.
- f. Personnel
 - (1) Requirements. Subparagraphs on the numbers of personnel required to bring the force up to strength and the estimated replacements required during phases of the operation.
 - (2) Availability. Include all sources such as scheduled replacements, prisoners of war, indigenous personnel, etc.
 - (3) Limiting features. Include the need for specialists and scarce categories.
- g. Foreign Military Assistance
 - (1) Requirements. Include need for aid to allies in intra-area of operations.
 - (2) Availability. In addition to normal support channels, include reciprocal military assistance programs.
 - (3) Limiting features. Includes such considerations as lack of standardization of equipment and spare parts.
- h. Finance
 - (1) Requirements.
 - (2) Availability
 - (3) Limiting features.
- i. Legal
 - (1) Requirements.
 - (2) Availability
 - (3) Limiting features
- j. Civil Affairs
 - (1) Requirements.
 - (2) Availability.
 - (3) Limiting features
- k. Miscellaneous (safety, mail and courier service, statistical reports, etc.)
 - (1) Requirements.
 - (2) Availability
 - (3) Limiting features

Figure B-1. Form for a Logistic Estimate of the Situation (Sheet 2 of 3)

4. **EVALUATION.** Indicate the outstanding logistical elements and controlling limiting features, including effects of enemy actions, weather, and terrain, in regard to the basic mission and, when pertinent, in connection with each proposed course of action thereunder. Discuss advantages and disadvantages of separate proposed courses of action.
5. **CONCLUSIONS**
 - a. Indicate whether the mission in paragraph 1 can be supported and the logistic implications of each proposed course of action. Outline reasons if basic mission or any proposal cannot be supported.
 - b. List the major logistical features which must receive the commander's attention indicating action necessary to correct deficiencies.
 - c. Recommend, when appropriate, which alternative proposed course of action appears to be the best from a logistic point of view.
 - d. Outline unavoidable logistical limitations of deficiencies.

(Signed)

APPENDIXES:

Charts, tabulations, and discussions covering in detail much of the information analyzed in paragraph 3 may be put here. Examples include situation map, location of logistical installations, and construction layouts.

Figure B-1. Form for a Logistic Estimate of the Situation (Sheet 3 of 3)

1. INTRODUCTION

- a. References. General statement referring to basic plan on which this annex is based, to appropriate documents if such exist and are held by subordinate commands, and to appendixes subsidiary to this annex.
- b. Summary of Strategic Concept
 - (1) General statement of strategic situation of basic plan
- c. Logistic Concept
 - (1) A full statement of the logistic concept, including the following, as appropriate:
 - (a) General statement as to the adequacy of logistic support. Critical items which affect the operation should be indicated.
 - (b) General changes in previous logistic methods, procedures, or policies
 - (c) Summary of other supporting plans, including those of superiors and other commands, services, agencies, etc. (Specific information, where necessary, should be included in appropriate numbered paragraphs.)
 - (d) Pertinent agreements and policies of higher echelons (including when necessary, national policies) affecting logistics, such as the extent of civilian aid and the utilization of indigenous resources in liberated and occupied areas to permit the desired degree of civilian economic defense, and so forth.
- d. General Assumptions
 - (1) General assumptions of logistic significance needed as a basis for logistic planning. (Some of these may be taken from the basic plan. It may be necessary to develop others in more detail for logistic purposes. Specific assumptions should be included as necessary in the appropriate numbered part of the plan.)
- e. Definitions
 - (1) Special terms not included in standard publications: (Dictionary of Military and Associated Terms)
- f. Operating Responsibilities
 - (1) Higher echelons
List here the matters which will be referred to higher echelons for decision during the development of operations, the allocations of logistic resources among the Services and commands, and any interest higher echelons may have in special logistic matters.
 - (2) Military Services
Summarize pertinent logistic responsibilities of each service including responsibilities for special logistic missions including support of civil defense and allied nations.
 - (3) United States commands
General responsibilities of the commanders for the logistics of the command. List for each command the special logistic missions in support of other commands and forces of Allied countries.
 - (4) Combined commands
Agreements reached by any combined chief of staff or corresponding organization concerning the logistics within the combined commands. Cover such matters as the responsibility and authority of such combined commander(s), and senior national commanders subordinate to the combined commander. Include general agreements relating to combined logistics.
 - (5) Other military agencies
Enumerate, by reference, the operating responsibilities of special agencies of high echelons, where existent and involved, having purview of special items of logistics. Include any special missions of these agencies and, for information purposes, those items which should be referred to the agencies.
 - (6) Government Agencies
Instruction for coordination with other government agencies, where such agencies may be involved.
 - (7) Lower echelons
List here the operating responsibilities of subordinates.

Figure B-2. Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces (Sheet 1 of 10)

2. SUPPLY ASPECTS

- a. Allocations
 - (1) Allocation of specific supply tasks not included in the Introduction, paragraph 1.
 - (2) Priorities for the provision of supply support, including critical items. Include instructions concerning any control of such items to be exercised by the originating command or higher authority.

- b. Authorized Levels
 - (1) Naval supplies (including shore based naval air)
 - (a) Provisions, dry and fresh, and water
 - (b) Ammunition
 - (c) Armament and armament repair parts
 - (d) Fuels and lubricants
 - (e) General stores.
 - (f) Ship's store stock
 - (g) Clothing (including special clothing) and small stores.
 - (h) Shipboard repair parts
 - (i) Aeronautical material
 - (j) Complete aircraft
 - (k) Medical stores
 - (l) Dental stores.
 - (m) Miscellaneous and special equipment
 - (2) Shore based forces (including Marine, but excluding naval air)
 - (a) Initial supply levels for all units
 - (b) Day's supply (by classes) to accompany landing, garrison, and other forces
 - (c) Establishment and duration of automatic resupply for disembarked troops
 - (d) Water supplies
 - (e) Special supplies, including construction material, to accompany garrison forces.
 - (f) Provision for reduction of levels in later stages of operation.
 - (g) Special limitation on nonessential equipment and supplies.
 - (h) Special equipment.
 - (i) Supply levels to be established and maintained at the objective.
 - (j) Supply discipline
 - (3) Strategic and critical materials
 - (a) Levels of stocks of selected materials to be established and maintained in various areas
 - (4) Responsibilities of commanders

- c. Requirements
 - (1) Responsibility of forces and commands for determination of requirements
 - (2) Special instructions for coordination of joint or combined requirements

- d. Requisitioning
 - (1) Forces afloat
 - (a) Provisions, dry and fresh, and water
 - i. Stocking and supply points ashore and afloat.
 - ii. Quantities to be carried at supply points
 - iii. Other pertinent information
 - (b) Ammunition
 - i. Initial loading and replenishment sources, afloat and ashore.
 - ii. Other pertinent information.
 - (c) Armament and armament repair parts
 - i. Stocking and supply points afloat and ashore
 - ii. Quantities (level of supply) to be maintained at supply points
 - iii. Other pertinent information.

Figure B-2. Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces (Sheet 2 of 10)⁴

- (d) Fuel and lubricating oil
 - i. Stocking and supply points.
 - ii. Special instructions regarding tanker loading and employment.
 - iii. Emergency reserves.
 - (e) General stores, ship's store stock, clothing (including special clothing), and small stores
 - i. Stocking and supply points.
 - ii. Special loads (packaged issue loads, and so forth)
 - iii. Other pertinent information
 - (f) Shipboard repair parts
 - i. Stocking and supply points
 - ii. Special procedures.
 - iii. Other pertinent information
 - (g) Aeronautical material.
 - i. Stocking and supply points
 - ii. Special procedures
 - iii. Other pertinent information
 - (h) Aircraft and aircraft engines
 - i. Stock points.
 - ii. Special instructions regarding transport aircraft carriers
 - iii. Other pertinent information
 - (i) Miscellaneous and special equipment
 - (j) Special requisitioning procedures and instructions.
- (2) Forces ashore
- (a) Supply bases for each phase of operation
 - (b) Supplies to be furnished on an automatic basis for what periods.
 - (c) Special requisitioning instructions, including emergency procurement.
- e. Specialized or Project Equipment
- (1) Miscellaneous special equipment, areas of use, requirements, and policies concerning issue
 - (2) Equipment for use in conjunction with special weapons (including atomic).
 - (3) Responsibilities for special equipment.
- f. Salvage (less ship and aircraft)
- (1) Policies concerning extent to which salvage will be carried on
 - (2) Responsibilities for salvage operations.
- g. Critical Scrap
- (1) Policies concerning collection and return or utilization of critical scrap
 - (2) Responsibilities.
- h. Captured Enemy Material and Documents
- (1) Policies concerning exploitation, utilization, or disposition of captured enemy material and documents
 - (2) Instructions pertaining to technical intelligence
 - (3) Reporting procedures
 - (4) Responsibilities.
- i. Local Procurement
- (1) General policies concerning extent of and control of local procurement
 - (2) Policies concerning allocation of local resources
 - (3) Restrictions to prevent adverse effect on civilian economy
 - (4) Operating procedures, including payment. Local procurement instructions must be applied to:
 - i. Supply from Allies under mutual aid agreements
 - ii. Purchase for neutrals.
 - iii. Purchase in liberated areas
 - iv. Requisitioning in occupied areas

Figure B-2. Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces (Sheet 3 of 10)

- j. Special Supply Missions
Policies and instructions, procedures and responsibilities relating to furnishing of supplies to the following:
 - (1) Allies
 - (2) Civil defense
 - (3) Civilians in liberated and occupied area
 - (4) Special agreements reached by any combined commands in the field of supply (including cross-servicing).
 - k. Petroleum Products (POL)
 - (1) Statement of policy and guidance on supply and distribution of petroleum products
 - (2) Policies and responsibilities for reserve levels of petroleum products
 - (3) Details of arrangements for movement of reserve stocks to desired locations which are positioned outside area in which use is contemplated
3. MAINTENANCE AND MODIFICATION
- a. All Types Except Ships and Aircraft
 - (1) Policies concerning maintenance, including repair and modification to be accomplished within the command.
 - (2) Facilities available, afloat and ashore.
 - (3) Instructions for obtaining use of facilities
 - (4) Protection of material (accountability, protection from weather, damage, pilferage, diversion to other purposes, and so forth)
 - (5) Responsibilities.
 - b. Ships
 - (1) Policies concerning maintenance, including repair and modification to be accomplished within the command.
 - (2) General policies regarding salvage of ships within the command.
 - (3) Facilities available, afloat and ashore
 - (4) Instructions for obtaining use of facilities.
 - (5) Responsibilities.
 - c. Aircraft
 - (1) Policies concerning maintenance, including repair and modification to be accomplished within the command.
 - (2) General policies regarding salvage of aircraft within the command.
 - (3) Facilities available, afloat and ashore.
 - (4) Instructions for obtaining use of facilities
 - (5) Responsibilities.
4. MEDICAL SERVICES
- a. Hospitalization
 - (1) Provision of hospitalization for combat, forward base, and theater forces. (Refer to base development plan if necessary.)
 - (2) Availability of commands
 - (3) Responsibility of commands
 - (4) Medical and dental supporting facilities including hospitals, hospital and evacuation ships, aircraft, and hospital trains.
 - (5) Miscellaneous
 - (a) Reports and records required.
 - (b) Availability of and instructions for obtaining whole blood
 - (6) Training.
 - (a) Policy and instructions for type training, duration and assignment for facilities

Figure B-2. Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces (Sheet 4 of 10)

- b. Evacuation
 - (1) From operating areas (policy and responsibility)
 - (2) In rear and staging areas (policy and responsibility)
 - (3) Land, sea, and air means to be provided
 - (4) Casualty estimation to be reflected here in detail.
- c. Preventive Medicine
 - (1) Sanitation and disease control
 - (2) Training of special sanitary units.
 - (3) Priorities for support of disease control units.
 - (4) Special military government responsibilities
 - (5) Immunization and indoctrination of personnel.
 - (6) Assignment of responsibilities of phases of operation.
- d. Chemical, Biological, and Radiological
 - (1) Responsibility, policies, and procedures for chemical decontamination.
 - (2) Responsibility, policies, and procedures for radiological decontamination
 - (a) Allocation of personnel specialists.
 - (b) Allocation of special equipment and facilities
 - (3) Responsibility, policies, and procedures for biological decontamination
 - (a) Allocation of personnel specialists.
 - (b) Allocation of special equipment and facilities .
- e. Medical Assistance to Civilians
 - (1) Responsibilities, policies, and procedures concerning civil defense and civil affairs/military government
 - (2) Civilian casualties and evacuation of civilians
- f. Combined Commands
 - (1) Special agreements reached by any combined commands in the field of combined medical services; and agreements, policies, and instructions concerning mutual aid.
- g. Allocation of Responsibilities
 - (1) Details of command responsible for each major medical and dental function by area
- h. Professional Services
 - (1) Details of arrangements for specialist care, including professional and sanitation
- i. Medical and Dental Supply
 - (1) Location, time of opening and closing, stock levels and units they are to supply
 - (2) Initial supply, and how and where obtained.
 - (3) Special equipment
 - (4) Provision for automatic supply and resupply
 - (5) Property exchange
 - (6) Emergency supply
 - (7) Provision for the initial supply and resupply of whole blood, including responsibilities for the storage and distribution.
- j. Health Standards and Examinations
 - (1) Policy standards and instructions for examination
- k. Research
 - (1) Policy and assignment of research problems, installations and facilities.

Figure B-2. Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces (Sheet 5 of 10)

5. TRANSPORTATION

- a. General
General policies, including combined policies, regarding transportation
- b. Responsibilities
Responsibilities of commands for the furnishing and operation of means of transportation:
 - (1) Land
 - (2) Air
 - (3) Sea
- c. Ports
 - (1) Aerial
 - (a) Policies and responsibilities for the establishment and operation of air transport terminal facilities
 - (b) Responsibilities for arranging for the utilization of commercial air transport terminal facilities
 - (2) Sea
 - (a) Policies and responsibilities for the establishment and operation of ports
- d. Evacuation of Noncombatants
 - (1) Responsibilities
 - (2) Persons to be evacuated
 - (3) Priority of evacuation
 - (4) General concept of operations for areas covered by basic strategic plan.
- e. Lines of Communication
 - (1) Sea
 - (a) Responsibilities for the establishment and protection of sea communications
 - (b) Assignment of responsibilities for convoy. Frequency and routes and limitations upon size of convoys
 - (c) Information (including maps or reference thereto) regarding lines of communication, operation of enroute ports, turn-around times, and capacities of LOC's.
 - (2) Air
 - (a) Responsibilities for establishment and maintenance of air lines of communication for unilateral or combined use
 - (b) Responsibilities for development of route patterns to be flown by logistic support aircraft
 - (c) Information (including maps or reference thereto) regarding lines of communication, operation of enroute ports, turn-around times, and capacities of LOC's
- f. Control and Allocation of Shipping
 - (1) General policies
 - (2) Designation of responsibility to subordinate commands and/or information regarding responsibilities of other commands
 - (3) Movement control to include manner of implementation within this command and coordination with other commands.
 - (4) Instructions for loading, embarking, and unloading by phase.
 - (5) Policies/instructions regarding the development of surface and air shipping requirements for personnel and cargo.
 - (6) Policies/instructions regarding the submission of personnel and cargo space requirements to higher authority for allocation of shipping space.
 - (7) Provision for concurrent transportation planning by various commands utilizing loading and unloading facilities.
 - (8) Shipping designators; special instructions for distribution of shipping information to subordinate commands.
 - (9) Policies concerning emergency shipments, including a forecast of availability of transportation for such shipments.

Figure B-2. Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces (Sheet 6 of 10)

- g. Combined Shipping Policies
 - (1) Special agreements reached by any combined commands and concerning transportation matters.
 - (2) Instructions pursuant to combined command agreements.

6. BASE DEVELOPMENT

- a. General
 - (1) Plans for base development
Outline plans for base development, including purpose, type, and location of planned bases; plans for base defense or reference to such plans; and indication of whether facilities are now existing or will be mainly new development
 - (2) Tasks in support mission of bases
Various tasks bases are to perform in support of forces in current and future operations
 - (3) Procedures and policy directives
Reference to governing directives, standard operating procedures, and pertinent base development plans; and to appendixes, if used.
 - (4) Priorities and completion dates
Policy on priority of base development and dates that base facilities are to be usable in performance of their mission
 - (5) Responsibility for development
Commands responsible for planning procurement and execution of construction and base development work, and the maintenance and operation of base facilities
- b. Utilization of Local Resources
 - (1) Sources of static intelligence
 - (2) Policies and procedures concerning use of local facilities, labor, materials, equipment, and resources
- c. Additional Projects and/or Modifications
 - (1) Procedures for the development of any major projects which may require deviation from normal standards or which may lie outside the original base development plan, including procedures by which authority may be obtained for such projects
- d. Combined Commands
 - (1) Special agreements reached by any combined commands concerning combined construction efforts, the occupation and development of common bases, and mutual aid
 - (2) Responsibilities for discharging United States obligations under such agreements
- e. Civil Responsibilities
 - (1) Military responsibility for construction and operation of facilities in connection with civil defense and civil affairs/military government
 - (2) Responsibilities of commands

7. PERSONNEL

- a. General Policies
 - (1) General policies concerning allocation and use of personnel of various categories, including female, minority groups, and specialists.
- b. Scheduling
 - (1) Instructions concerning priorities for personnel between commands, types of units to be assigned in appropriate cases, types of units to be included in buildup of forces in accordance with schedules of planned operations

Figure B-2. Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces (Sheet 7 of 10)

- c. Replacement Policies
 - (1) Replacement, filling, allowance, and rotation policies and procedures
 - (2) Estimate of replacements available by phases of operation
 - (3) Replacement schedules for each command or area
- d. Reporting Procedures
 - (1) Policies, instructions, and procedures regarding reporting. Include assembly points and use of personnel centers
- e. Utilization of Women, Specialists, and Scarce Categories
 - (1) Lists of specialists, women, and scarce categories
 - (2) Special policies concerning allocation and utilization of specialists, women, and scarce categories
- f. Utilization of Civilians
 - (1) General policies governing the utilization of civilians and United States nationals in overseas areas
- g. Utilization of Local National Labor
 - (1) General policies governing the utilization of skilled, semiskilled, and common indigenous civilian labor in overseas areas
- h. Prisoners of War, Evacuees, and Repatriates
 - (1) Policies concerning shipment to rear areas Z.I.
 - (2) Utilization of prisoners of war
 - (3) Care, feeding, and treatment of prisoners of war, evacuees, and repatriates
 - (4) Responsibilities of commands
 - (5) Combined policies and responsibilities
- i. Military Law, Discipline, and Order
 - (1) Policies pertaining to procedures in military law, discipline, and order
 - (2) Policies governing military law, discipline, and order in combined commands and areas of combined operations
 - (3) Areas of responsibility for military law, discipline, and order
- j. Morale, Recreation, and Welfare
 - (1) Policies pertaining to: standards; allocation of facilities and materials; procurement, storage, and distribution of supplies and equipment; utilization and administration of USO, Red Cross, and similar agencies
- k. Casualty Reporting
 - (1) Policies and procedures regarding casualty reporting
- l. Graves Registration Service
 - (1) General policies concerning graves registration services
 - (2) Responsibilities for search, recovery, and identification, temporary burial, burial records, and cemetery maintenance
 - (3) Responsibilities of disposition of personal effects and baggage of deceased, missing, and prisoner-of-war military personnel
- m. Decorations and Awards
 - (1) Regulations (by reference, if appropriate) and policies concerning decorations and awards, including foreign decorations

Figure B-2. Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces (Sheet 8 of 10)

8. FOREIGN MILITARY ASSISTANCE

- a. General Policies Concerning Intra-area Aid to Allies in Operational Areas
- b. Policies and Procedures for Handling Reciprocal Military Assistance Programs and the Extent of Such Programs

9. FINANCE

- a. General Policy
 - (1) Policies and procedures governing the use of dollar instruments, military payment certificates, and indigenous currency.
 - (2) Sources for the procurement of foreign currency, military payment certificates, and indigenous currency
 - (3) Policies pertaining to control of financial institutions in liberated or occupied areas and conditions under which financial institutions will be controlled, and methods of control to be followed
- b. Currency and Credit Controls
 - (1) Kinds and types of currency to be used in overseas areas.
 - (2) Provisions for placing in circulation dollar instruments, where local conditions and arrangements with indigenous government permit
 - (3) Usage of military payment certificates and indigenous currency in areas where dollar instruments are prohibited
 - (4) Restriction in usage of military payment certificates.
 - (5) Usage of foreign currency as a medium of exchange in areas prescribed as prohibited to dollar instruments for transactions in the indigenous economy.
 - (6) Procedures for procurement of dollar instruments, military payment certificates, and foreign currencies and conversion rates
 - (7) Limitations on transfer of credit or currency to United States by military personnel
 - (8) Provisions for prohibiting of personnel from participating in extralegal transactions by acquiring foreign currencies from indigenous sources in exchange for personal property issued from government sources or procured by exchange facilities or private sources
- c. Pay Functions
 - (1) Policies and procedures concerning pay of military personnel; disposition of pay accounts of personnel missing in action; captured, or for other reasons absent, and pay of members of one Service by disbursing officers of another Service
 - (2) Policies and procedures concerning the pay of United States citizens, indigenous personnel, refugees, displaced persons employed by United States military forces, and prisoners of war
 - (3) Provision for banking, savings, and remittance arrangements for United States military personnel
- d. Control of Financial Institutions
 - (1) Policies and procedures to ensure that all records, assets, facilities, and properties (real, personal, and mixed) belonging to, or in possession of, financial institutions in liberated or occupied areas will promptly be taken into custody and secured, in order to preserve same and assure that any subsequent usage of these records, assets, facilities, or properties will be in accord with United States Government or Allied financial policies.
- e. Inspection and Audit
 - (1) Responsibilities and procedures for special and frequent irregular interval inspection and audit of accounts of subordinate organizations

10. LEGAL

- a. General Policies and Instructions
- b. Military Justice
 - (1) Designation of supervisory authorities and such other instructions as are necessary.

Figure B-2. Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces (Sheet 9 of 10)

- c. Claims
 - (1) Responsibilities of commanders with respect to receiving, investigating, approving, or forwarding to higher authority claims of United States personnel, foreign governments, or foreign nationals against the United States.
 - d. International Legal Status
 - (1) Applicability of local law and such other instructions as are necessary
 - e. Legal Assistance
 - (1) Policies and procedures regarding legal assistance, including availability
11. CIVIL AFFAIRS
Include only logistical personnel aspects of civil affairs. (Operational considerations will be included in the Civil Affairs Annex.)
12. MISCELLANEOUS
- a. Safety
 - (1) Special policies and instructions.
 - b. Mail and Courier Service
 - (1) General policies pertaining to operations of mail service, including security regulations and information pertaining to courier service.
 - c. Statistical Reports
 - (1) Special reports required by originating commander or higher echelons

Figure B-2. Standard Form of a Logistic and Personnel Annex to an Operation Plan for U.S. Navy Forces (Sheet 10 of 10)

UNCLASSIFIED

1. BASIC INFORMATION
 11. General. To include information on forces taking part, references to general basic directives, SOPs, Charts, and maps
 12. Logistic Agencies. List all logistic agencies actively concerned, including location and short title
 13. Logistic Requirements
 14. Logistic Readiness and Training. Include instructions on reporting critical deficiencies
2. ALLOCATION OF RESPONSIBILITIES
 21. Chain of Command
 22. National Responsibilities
 23. Logistic Responsibilities of Operational Commanders
3. SUPPLY LEVELS
 31. Forces Afloat. Ships to be fully stored in all respects. Include an instruction about reporting endurances if desired
 32. Ashore. Minimum levels in days of supply prescribed for particular advanced bases and installations
4. METHODS OF SUPPLY
 41. General. Include note of the possibilities of cross-servicing and a directive on big ships supplying smaller ones.
 42. Underway Replenishment Groups. Include initial loadings and arrangements for resupply.
 43. Mobile Support. Include location and capabilities.
 44. Base Supply. Include location and capabilities
 45. Procedures
5. MAINTENANCE, REPAIR, AND SALVAGE
 51. Maintenance
 52. Repair
 53. Salvage
6. REPLACEMENT OF AIRCRAFT AND FLIGHT PERSONNEL
 61. Aircraft
 62. Flight Personnel
7. MEDICAL
 71. Policy
 72. Facilities
 73. Evacuation
 74. Procedures
8. ADMINISTRATION (If lengthy, may be issued separately and referred to here)
 81. Personnel Replacement
 82. Mail
 83. Censorship
 84. Currency
 85. Leave and Recreation
 86. Prisoners of War and Enemy Material
 87. Civil Affairs
9. TRANSPORTATION
10. MISCELLANEOUS
 91. Reports
 92. Conversion Tables
 93. Definitions

UNCLASSIFIED

Figure B-3. NATO Standard Form of a Naval Logistic Annex to Operation Orders

APPENDIX C

Supplement to Communication Planning

C.1 COMMUNICATION PLANNING INFORMATION

The check list given below is intended for officers engaged in communication planning. Its use in conjunction with this and other texts will help to ensure against omissions and oversights in planning.

In the compilation of the list, no attempt is made to offer a solution to the problems which its use will bring to mind. Its value as a planning guide is that it brings up problems during the planning phase when time is available for finding solutions. Consider these problems before they arise in the course of operations, for delay and confusion at a more crucial time may result in the failure of the mission.

The development of additional planning information is encouraged. Material for this should be submitted to the Chief of Naval Operations under the subject, NWP 11. It is through this means that all naval communications planners may benefit from the experience of others.

C.1.1 Normal Operations Check List. Use this part of the check list for all operations.

C.1.1.1 Planning Phase

1. Selection of planning personnel
2. Compilation of planning library
 - a. Communication equipment
 - b. Communication systems
 - c. Logistic data

- d. Planning data
- e. Frequency allocation
- f. Reports of previous operations
- g. Communication orders, records, and reports

h. Publications

3. Formation of plans

- a. Mission
- b. Detailed missions
- c. Detailed requirements (use of items in this list)
- d. Coordination (conference and liaison)
- e. Estimates of the situation
- f. Tentative plans
- g. Additional coordination (conference and liaison)
- h. Draft plans for commander's approval
- i. Final plans

C.1.1.2 Training Phase

1. Individual training
2. Team training
3. Unit training

4. Special operations training
5. Inspections of communication personnel and equipment
6. Maneuvers
7. Inspections and critiques
8. Rehearsals

C.1.1.3 Detailed Requirements for Which Plans Must Be Made

1. Radio communications

a. Radio installation

- (1) Units and locations
- (2) Estimated traffic loads and selection of equipment
- (3) Frequency assignment
- (4) Reliability needed
- (5) Security needed
- (6) Portability desired
- (7) Time available for installation

b. Radio operation

- (1) Wave propagation factors
- (2) Aurora borealis
- (3) Aurora australis
- (4) Weather
- (5) Radio relay
- (6) Security
- (7) Propaganda broadcasts

- (8) Press
- (9) Radio teletypewriter
- (10) Radio facsimile
- (11) Monitoring
- (12) Guarding frequencies
- (13) International distress frequencies
- (14) Air-sea rescue nets
- (15) Warning nets (aircraft, gas, bacteriological)
- (16) Command nets
- (17) Air support nets
- (18) Radio restrictions to deny information to the enemy
- (19) Jamming by the enemy
- (20) Jamming of the enemy
- (21) Alternate frequencies
- (22) Radio intelligence

2. Communication centers

a. Message center sections

- (1) Units and locations to be served
- (2) Location of installations
- (3) Press
- (4) Mail
- (5) Officer couriers

b. Cryptography

- (1) Equipment
- (2) Personnel
- (3) Security clearance of personnel
- (4) Protection of equipment
- (5) Work procedures to obviate violations of crypto-security
- (6) Procedure in the event of compromise
- (7) Emergency destruction of cryptomaterial
- (8) Routine destruction of work sheets, obsolete cryptomaterial, and other classified material

3. Wire communications (fixed installations ashore)

a. Wire installations

- (1) Units and locations
- (2) Wire circuits required (number and length)
- (3) Tactical potentialities
- (4) Type of construction to be used
- (5) Special equipment for wire installation
- (6) Circuit priorities

b. Wire operations

- (1) Telephone
 - (a) Code names
 - (b) Directories
 - (c) Priority calls

(d) Estimated traffic loads and selection of equipment

(e) Press

(f) Personalities

(g) Security of circuits

(h) Records and reports

(2) Teletypewriter

(a) Call signs

(b) Estimated traffic loads and selection of equipment

(c) Radio teletypewriter

(d) Security of circuits

(e) Press

(3) Facsimile

(a) Radio

(b) Wire

(c) Need for additional circuits or channels

(d) Press

4. Visual and sound communication

a. Flags

b. Flashing lights

c. Pyrotechnics

d. Panels

e. Alarm systems

C.1.2 Amphibious Operations Check List.

Use this part of the check list in addition to the part for normal operations. Only those items peculiar to amphibious operations are included in this list.

C.1.2.1 Planning Phase

1. Means to expedite the handling of messages during all phases
2. Displacement of headquarters for embarkation
3. Distribution lists of all units involved
4. Forwarding messages after embarkation
5. Selection and distribution of cryptosystems for each phase
6. Joint instructions
7. Radio intelligence during each phase
8. Ruses to mislead the enemy during voyage
9. Decoy radio stations
10. Dummy radio traffic
11. Special courier service
12. Security
13. Liaison
14. Lift for communication troops and equipment
15. Replacement for personnel losses in early stages
16. Supply

C.1.2.2 Training Phase

1. Special amphibious training
2. Training for each phase
3. Rehearsals and critiques

C.1.2.3 Pre-embarkation Phase

1. Early embarkation of headquarters ship's personnel
2. Testing of equipment prior to loading
3. Visual communications
4. Dispatch boats
5. Wharf area wire net

C.1.2.4 Loading and Embarkation Phase

1. Sequence of loading to ensure proper sequence of unloading
2. Calibration of radio equipment prior to loading
3. Supplies
4. Loading plan including distribution of personnel and equipment to avoid heavy losses
5. Use of assault force personnel to aid ship's communication personnel

C.1.2.5 Voyage

1. Radio silence for landing force equipment
2. Inspections
3. Dispatch boats
4. Visual communications
5. Morale factors

6. Training

C.1.2.6 Approach

1. Preparation of equipment
2. Tuning of equipment
3. Synchronization of time

C.1.2.7 Debarkation and Assault Phase

1. Time for lifting radio silence
2. Establishing beach communications
 - a. Wire nets
 - b. Radio nets
 - c. Communication centers
3. Ship-to-shore communications
 - a. Wire nets
 - b. Radio nets
 - c. Messengers
 - d. Visual
4. Air communications
 - a. Fighter control
 - b. Air warning
 - c. Air support
5. Ship-to-shore fire control communications
 - a. Radio
 - b. Wire
 - c. Visual

C.1.2.8 Consolidation and Naval Withdrawal

1. Assumption of responsibility
 - a. Air support communications
 - b. Base communications
 - c. Air warning
 - d. Fighter control communications
2. Communications for movement inland
3. Port signal units to relieve tactical units on the beach

C.1.2.9 Supply

1. Initial issues
2. Equipment to replace early losses
3. Marking and packaging to avoid loss and damage
4. Supply discipline

C.1.2.10 Miscellaneous

1. Waterproofing of vehicles and signal equipment
2. Use of submarine cable
3. Equipment mounted in landing craft
4. Communication requirements when airborne units are used for assault
5. Loudspeakers for maintaining beach discipline
6. Landing time for cryptographic equipment

C.2 FREQUENCY PLANNING

The following brief discussion of the characteristics of frequencies is of value to the communication planner in helping him understand the capabilities and limitations of his radio equipment. This is important when selecting the operating frequencies for any circuit. Cognizance must be taken of the frequency range of the particular item of equipment and the characteristics of that particular range of frequencies. Characteristics include reliability, range capability, freedom from interference, and vulnerability to enemy interception.

The energy radiated from a transmitting antenna divides into ground waves which go upward into space and may be reflected back to the earth's surface by the layer of the atmosphere known as the ionosphere. The layers of the atmosphere are diagrammed in Figure C-1. The frequencies of the radio broadcast spectrum range from very low (VLF), which are below 30 kiloHertz (kHz), to superhigh (SHF), which are from 3,000 to 30,000 megaHertz (MHz). A frequency guide is shown in Figure C-2.

C.2.1 Very Low (VLF) and Low (LF) Frequencies. VLF and LF frequencies are effective for thousands of miles when high-powered transmitters and proper antennas are used. When short-range communication is desired, LF can be employed with low power. Consequently, VLF is assigned to shore stations and the fleet and LF to the fleet. The principal advantage of VLF and LF is that they are very reliable, since they are seldom subject to ionospheric conditions. VLF is essentially immune from fading characteristics and provides reliable coverage on a 24-hour basis.

C.2.2 Medium (MF) and High (HF) Frequencies. MF frequencies provide a broadcast band which is dependable in its lower limits, but dependability decreases toward its upper

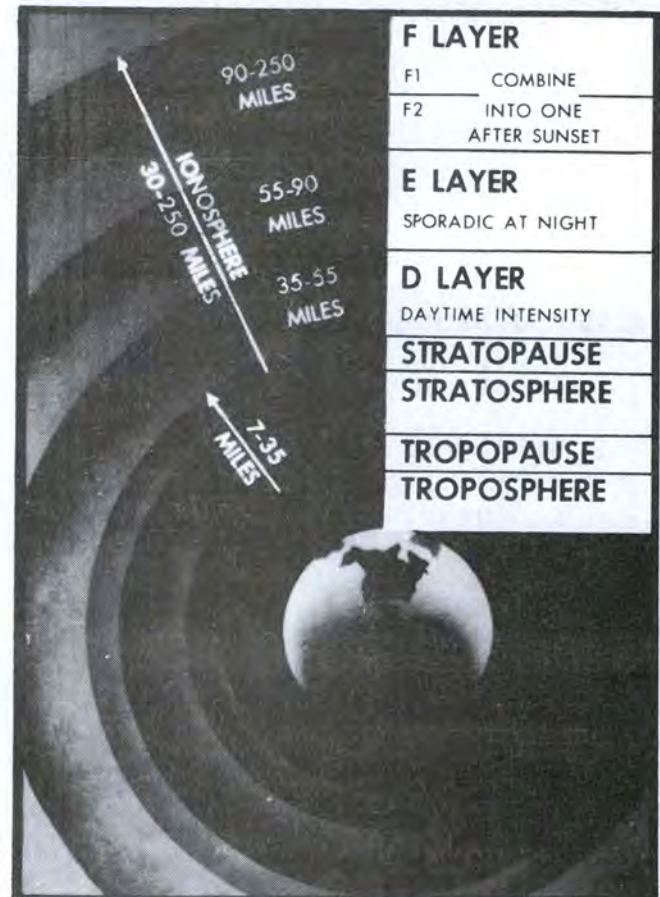


Figure C-1. Division of the Atmosphere

limits. The range capabilities of MF transmissions vary with the power of the transmitter, the directivity of the antenna, and the characteristics of local terrain. Since transmissions in the lower MF frequencies travel largely by ground wave, these frequencies are assigned to ships, aircraft, and troop units for relatively short distance ship-to-shore and tactical communications.

The upper limits of the MF band and the lower limits of the HF band (from 2 to 18.1 MHz) comprise the standard band for long-range naval communications from ship to

FREQUENCY		RANGE OF TRANSMISSION			
SYMBOL	kHz or MHz	DAYTIME		NIGHTTIME	
		SKY WAVE	GROUND WAVE	SKY WAVE	GROUND WAVE
VLF	BELOW 30 kHz	LONG RANGE WHEN VERY HIGH POWER USED. PHASE INTERFERENCE PATTERNS OCCUR AT DISTANCES GREATER THAN 1,000 MILES DUE TO GROUND WAVE AND SKY WAVE SIGNALS AIDING AND OP-POSING		SAME AS DAY.	
LF	30-300 kHz	NEGLIBIGLE AS FREQUENCY INCREASE IN ABSORPTION.	SIMILAR TO VLF BUT RANGE IS CONSIDERABLY LESS DUE TO ATTENUATION. RANGE DEPENDENT ON POWER.	SAME AS VLF BUT RANGE IS CONSIDERABLY LESS.	SAME AS DAY
MF	300-550 kHz	NEGLIGIBLE.	MAXIMUM SEVERAL HUNDRED MILES. RANGE DECREASES WITH FREQUENCY	EFFECTIVE—DEPENDS ON SKIP DISTANCES.	SAME AS DAY. HOWEVER, SEVERE CONSTRUCTIVE AND DESTRUCTIVE PHASE INTERFERENCE WITH SKY WAVE AT SEVERAL HUNDRED MILES
	550-1,600 kHz	NEGLIGIBLE.	MAXIMUM FEW HUNDRED MILES RANGE DECREASES WITH FREQUENCY.	EFFECTIVE—DEPENDS ON SKIP DISTANCES.	SAME AS DAY. HOWEVER, SEVERE CONSTRUCTIVE AND DESTRUCTIVE PHASE INTERFERENCE DEPENDENT UPON FREQUENCY AND TRANSMISSION CONDITIONS.
	1,600-3,000 kHz (INTERNATIONAL) (SHORT WAVE")	NEGLIGIBLE.	APPROXIMATELY 100 MILES OR LESS.	SHORT RANGE. REFER TO NTP 6.	SAME AS DAY. HOWEVER, SEVERE CONSTRUCTIVE AND DESTRUCTIVE PHASE INTERFERENCE WITH SKY WAVE AT APPROXIMATELY 50 MILES AND BEYOND.
HF	3-30 MHz (INTERNATIONAL) "SHORT WAVE")	SHORT, MEDIUM AND LONG RANGES DEPEND ON FREQUENCY. REFER TO NTP 6.	LIMITED AND BECOMES NEGLIGIBLE AS FREQUENCY INCREASES.	SHORT, MEDIUM AND LONG RANGES DEPEND ON FREQUENCY. REFER TO NTP 6.	SHORT DISTANCE DEPENDENT UPON FREQUENCY, POLARIZATION, AND CONDUCTIVITY.
VHF	30-300 MHz	NONE, EXCEPT IN LOWER VHF UNDER CERTAIN CONDITIONS	TROPOSPHERIC WAVE.	NONE, EXCEPT IN LOWER VHF UNDER CERTAIN CONDITIONS.	TROPOSPHERIC WAVE
UHF	300-3,000 MHz				
SHF	3,000-30,000 MHz				
STANDARD NAVAL BAND - 2 to 18 kHz					

Figure C-2. Frequency Guide

ship and from ship to shore. In these frequencies, transmissions travel almost entirely by sky wave and are subject to ionospheric conditions.

C.2.3 Very High (VHF) and Ultrahigh (UHF) Frequencies. VHF and UHF transmissions are almost entirely by ground wave. Since they are line-of-sight waves, they are more or less limited to the distance of the horizon. Consequently, VHF and UHF ranges are used for short-range tactical purposes where security from interception is desired. VHF radio, sometimes called line-of-sight radio, has a normal range limit of 10 to 30 miles. This does not mean that VHF always provides a secure communication channel. At times, conditions in the ionosphere can be extremely favorable, resulting in reception hundreds of miles away from the sending station. Since VHF and UHF waves have little penetrative power or bending characteristics, large objects between the transmitter and receiver can reduce signal strength or prevent communications.

C.2.4 Superhigh (SHF) Frequencies. The SHF frequency band is normally employed for short-range transmissions. It propagates almost entirely by line-of-sight wave and is not reflected great distances by sky-wave action.

C.2.5 Ionospheric Conditions. Because transmissions on certain frequencies are propagated by sky wave, they are subject to changes in ionospheric conditions. The sky wave radiates upward from the radio antenna and, when it strikes the ionosphere at an angle, it begins to bend and refract towards the earth. Depending upon the frequency of the transmission and the density of the ionosphere through which the wave is traveling, the refraction increases as the wave proceeds. If there is enough refraction, eventually the wave will bend sufficiently to strike the earth's surface. To illustrate this principle, let us assume that the wave transmitted upon a certain frequency is composed of four radiations, as shown in Figure

C-3. Radiation 1 leaves the antenna and is projected vertically. It passes through the ionosphere and is lost. Radiation 2 leaves the antenna at the critical angle. There is a critical angle for every frequency which is the largest angle at which the transmission on that frequency can be radiated and still be directed back to the earth. Radiation 3 leaves the antenna at the smallest angle that will permit refraction back to the earth's surface. Any smaller angle, as in the case of Radiation 4, will not be refracted sufficiently and transmission at this angle cannot be received by sky wave.

C.2.6 Critical Frequency. As the frequency becomes higher, the critical angle becomes smaller. Extremely low frequencies that are projected straight upward will be reflected back to the earth. The highest frequency that can be sent directly upward and still be returned to the earth's surface is called the critical frequency. The critical frequency is not constant, but varies from one locality to another, with differences occurring also according to the time of day, the season of the year, and the

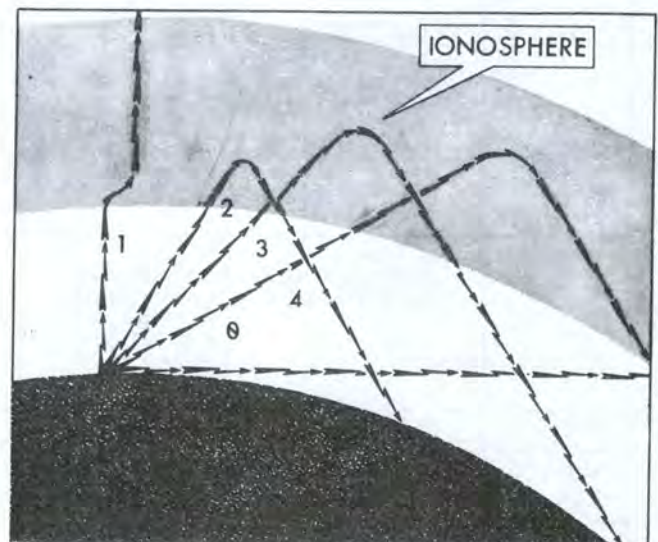


Figure C-3. Refraction Angle

sunspot cycles. The variation in critical frequency makes it necessary to issue predictions, contained in frequency tables and nomograms, to determine the maximum usable frequency for any hour of the day. Frequency tables list the best "families of frequencies" and are published in NTP 6, SUPP 1, Recommended Frequency Band and Frequency Guide. A separate table for each major shore station is issued quarterly. These tables give the recommended frequencies for every hour of the day and for every distance from 250 to 5,000 miles from each station. Nomograms are published by NIP annually and present the best frequency for any time of the day and for any transmission from 1 to 2,200 miles. Each nomogram covers a range of 10° of latitude.

The information contained in the frequency tables and nomograms is typical of the electronic data at the disposal of the communication planner. Since frequencies do vary in propagation characteristics and each frequency will vary in performance because of ionospheric conditions, information of this nature is basic in the solution of operational communication problems.

C.3 COMMUNICATIONS DURING ARCTIC OPERATIONS

The following paragraphs compile the best available information on the problems encountered during communication operations in the Arctic. They are included to make the communication planner aware of the difficulties encountered in cold-weather operations and of some of the methods used to combat Arctic communication problems. Hard and fast rules cannot be laid down for maintaining communications in the Arctic. Thorough preparation, indoctrination, and ingenuity are the all important factors to successful communications in the high latitudes.

C.3.1 Background and Source. Prior to Operation NANOOK in 1946, very little was available on communications and electronics in the Arctic, and that information was confusing.

This operation was set up on a normal frequency plan with standard equipment. Communications during the operation experienced cold-weather conditions on ship-to-ship, ship-to-shore, and ship-to-plane circuits and in communications with boats and beaches. Valuable experience was gained regarding radio communications and the effects of ionospheric disturbance and wave propagation characteristics in the Arctic. Resupply expeditions and subsequent oceanographic expeditions became further sources of information on communication problems in cold-weather latitudes.

This summary of expeditions furnishes a variety of cold-weather operations in winter and summer from both the Pacific and Atlantic approaches to the Arctic from 1946 through 1951. The USS Burton Island (AGB-1) participated in both the resupply operations and the subsequent oceanographic expeditions and had on board both Navy personnel and expert civilian technicians.

Operation BLUEJAY was of particular interest and value as a source because of the typical severe communication blackout experienced by this force due to ionospheric disturbance. Unreliability of communications, inadequacy of equipment, and failure in joint services was experienced.

C.3.2 Communication Vagaries Peculiar to the Arctic Region. Much that is published on Arctic communications is controversial. Anomalies do exist. A great deal that is experienced is not yet understood. The discussions below collect and correlate the facts regarding the problems to forewarn the communication planner of the abnormalities that are singular to the Arctic and to explain some of the practices that have aided in overcoming difficult conditions and maintaining rapid communications. The communication planner must understand the problems before he is confronted with the necessity of solving them.

C.3.2.1 Wave Propagation Characteristics. These characteristics are rapid and relatively

unpredictable. Due to the high amount of auroral activity at high latitudes, communications are extremely unreliable. The principal consequence of auroral activity is that a great percentage of a transmitter's radiated power is absorbed in the lower ionized layers and its critical frequency is lowered due to reduced ionization in the upper ionized layers. Thus, the band of usable frequencies, those low enough not to penetrate the ionosphere but great enough not to be excessively absorbed, is narrowed or, during more intense storms, wiped out entirely. As a consequence, the distance between stations must be minimized to ensure reliable communications on any frequency, with the possible exception of the low and very low frequencies, where the aurora has little or no effect.

A transmission following the earth's magnetic field has a greater range than one at right angles to it. Signals are especially attenuated when the transmission path lies perpendicular to and within the auroral belt (that is, north-south circuits), but the effective distance for reliable communications is increased as much as ten times when the path lies parallel to and within the auroral belt (that is, east-west circuits). A ship operating between Argentinia and Reykjavik will have more reception difficulties than one operating between Reykjavik and Murmansk because, in the first case, the transmission path lies at 45° to the auroral belt, while in the second case, the transmission path is almost parallel to the auroral belt.

C.3.2.2 Shielding Effects. These effects are, with relation to mountains, particularly noticeable on all frequencies. In fiords or enclosed harbors, communications may be lost completely.

C.3.2.3 Auroral Zone. The auroral zone is believed to be due to charged particles (possibly electrons) ejected from the sun. These particles enter the earth's field, are deflected so that they tend to spiral down and around the lines of force, and strike the ionosphere both night and day.

The aurora (called Aurora Borealis in the northern hemisphere) is the visible effect of the charged particles striking the ionosphere. It is seen directly overhead in the auroral zone. During intense magnetic storms, auroras shift to lower latitudes. With them shift the characteristic magnetic disturbances so prejudicial to communications.

The northern auroral zone is a belt about 10° of latitude in width, located about 1,200 miles radially from a center near Etah, Greenland, at approximately lat. $78^\circ 50'$ N. long. 69° W. The belt passes very close to the whole north coast of Europe and Asia, dips down through Iceland and Alaska, and comes farthest south across Canada. Its path across Canada through Churchill on the Hudson Bay is lat. 59° N. The auroral zone is about 24° more north in Siberia than it is in Canada.

C.3.2.4 Ionospheric Disturbances

C.3.2.4.1 Sudden Ionospheric Disturbances. Coincident with the appearance of solar flares (bright eruptions on the sun), usually in the vicinity of a large sun spot or a group of sun spots, there often occur periods of abnormally high absorption in the lower ionized layer, lasting from a few minutes to a few hours, and occurring only during daylight hours. This is called a sudden ionospheric disturbance (SID) and the absorption of high-frequency (HF) waves is so strong as to cause cessation of all useful HF transmissions, except possibly on frequencies very near the maximum usable frequency (MUF) limit. The SID affects all HF circuits in the daylight hemisphere and is not limited to the vicinity of the auroral zone.

C.3.2.4.2 Magnetic Storms. Magnetic storms are electromagnetic disturbances to which the earth is subjected, due to instability of ionosphere layers.

1. Characteristics. Magnetic field fluctuates on wider limits than normally. Storms occur with greater irregularity.

2. Phases. In the initial or positive phase, the horizontal component of the earth's magnetism is above normal. In the main or negative phase, the horizontal component drops below normal. In the post-perturbation period, there is resumption of the normal relationship of the horizontal component of the earth's magnetism to the vertical component.

Note

The most violent and erratic changes occur in shifting from the positive to the negative phase. This change is especially severe in the Arctic.

3. Sun Spots and Relationship of Magnetic Storms. A close relationship exists. Storms tend to recur at about 27-day intervals, but a series of 27-day recurrences does not continue indefinitely. Several different storms may take place during a 27-day period. Magnetic storms are 50 percent incident to an active sun-spot group passing the center meridian of the sun.

4. Broadcast Storm Warnings. The latest available information on radio conditions on North Atlantic and other high-latitude transmission paths is broadcast by the NBS radio station WWV at Washington, D.C. Disturbance notices are given throughout the day at 19 and 49 minutes after the hour on frequencies of 2.5, 5, 10, 15, 20, 25, 30, and 35 MHz by a letter in International Morse Code repeated several times. The letters and meanings are as follows:

N - Conditions quiet

U - Conditions unstable; disturbance likely for weaker circuits

W - Disturbed conditions exist or are expected within 12 hours

5. Forecasts. Forecasts of the most likely periods for disturbed radio propagation conditions for the next 25 days and prospects of radio propagation conditions for the following week may be obtained on request from CNO. Arrangements can be made by the operational commander through CNO to provide the preceding forecasts twice weekly.

6. Effect of Storms on Communications

a. High frequency. Flutter fading becomes extreme.

b. Erratic Propagation. Deviation from normal great circle paths. (May cause wide diversion in direction finder bearings.)

c. High-Frequency Blackout. High-frequency blackout may occur within a few minutes, as the disturbance penetrates the lower ionospheric levels and absorption increases sharply, blacking out higher and higher frequencies. This condition may continue from a period of a few minutes to a period of as much as two weeks.

7. Low-Frequency Blackout Reaction. Propagation on frequencies below 200 kHz may actually improve during blackouts. This is attributable to the fact that during auroral storms the density of the lowest ionospheric layer is greatly increased. Although this layer acts as an absorbent for the higher frequencies, it becomes a very good reflector for the lower frequencies; hence a wave guide is formed between the layer and the earth which tends to project the range of low-frequency transmissions.

C.3.2.5 Conclusions

1. In the auroral zones, absorption of radio waves is normally high both day and night.
2. The auroral zones are characterized by extreme variability due to the frequency of ionospheric disturbance.
3. Any communication circuit, which lies within the zone, will be affected by the abnormal absorption and is subject to disruption during magnetic storms.
4. During periods of ionospheric disturbances, high-frequency circuits, except those within a few hundred miles of the radius, may, with little warning, black out completely. This high-frequency blackout may continue from a few minutes to several weeks.
5. Very-low-frequency transmissions (10-30 kHz), originating outside auroral zones, are not appreciably affected at receiving points across or within auroral zones.
6. Low-frequency transmissions (200 kHz down) appear to be the best means of maintaining communications during blackouts.
7. Long-range, high-frequency circuits (1,500 to 3,000 miles) are at times very erratic, even in times of quiet periods in the auroral zone.
8. The shielding effect of mountains in the Arctic is particularly noticeable. In fiords or enclosed harbors, signal strength may decrease to the point where the ship must proceed to open water to reestablish communications.
9. Without the information that an AN/URA-17 converter comparator and teletype printer incorporating weather symbols can make available, weather forecasting more than 12 hours in advance is highly unreliable in the Arctic.

10. Radio-photo facsimile equipment has proved to be a most valuable piece of communication equipment. For Arctic communications to date, it has been more reliable for ship-to-shore communication than the normal ship-to-shore circuit.

11. Despite precautions taken to notify all agencies in any way connected with mail delivery, Arctic operations to date suffer from poor mail delivery, or none at all.

12. In time, all Arctic and other cold-weather experiences will become doctrine. Basic doctrine will be included in the proper NWP or joint publication at some future date.

13. To date, experiments with a balloon-raised antenna (Bering Sea Expedition, January-March 1951) have been inconclusive. Experience was gained in balloon handling in the Arctic and the difficulties involved in using a balloon to raise 1,200 feet of antenna from aboard ship were determined. It is doubtful, however, if sufficient data was obtained to draw a conclusion regarding low-frequency wave propagation in the Arctic.

C.3.3 Arctic Communication Check List.

Recommendations are summarized from publications and operation reports to form an Arctic communication check list.

1. Flagship. On any sizeable operation, the flagship should be an LCC-type vessel. The important advantages are the flexibility of receivers, transmitters, antennas, and internal communications afforded by the LCC, plus the adequacy of personnel and technical assistance. Fleet operational commanders should give this consideration when planning for Arctic operations.

2. Joint Crypto System

a. Where messages are to be handled by more than one service, a joint crypto

system should be employed on all messages. Plain dress headings instead of co-dress headings should be employed.

b. Where practicable and permissible from a security standpoint, a wider dissemination of operation orders should be made. All communicators — Army, Navy, and Air Force — should be familiar with the basic task organization, calls to be used, operating procedure to be used, and mission to be accomplished. Early notice should be given CNO in order to make proper provision for joint cooperation on Arctic operations.

3. Personnel

a. Enlisted personnel should be adequate, rated, and trained, preferably on a watch-in-four basis. Every effort in planning operations should seem to continue to augment operational and technical personnel in proportion to equipment allowed. Erratic propagation in the Arctic may necessitate operation of two separate circuits to task group commanders, each one on a different frequency with a different set of operators, whereas one circuit in normal latitudes would suffice. This fact should be taken into account when setting up personnel and equipment allowances.

b. All officers in future operations should arrive as early as possible in order to become familiar with what is planned. If they are inexperienced, they will still have time to become acquainted with their duties prior to having to perform them.

4. Training

a. During magnetic (ionospheric) storms, frequent shifting of frequencies will be necessary. Therefore, operators should be thoroughly drilled in rapid tuning of transmitters and receivers and in

anticipating shifts by means of standby equipment.

b. Keying two or more transmitters simultaneously on widely divergent frequencies will facilitate communications. Equipment should be provided and the procedure worked out in advance.

c. In Arctic operations, a substantial part of the communications may be with U.S. Air Force, U.S. Army, British, and Canadian stations, including aircraft of these services. Operating personnel should be thoroughly familiarized with joint, combined, and commercial operating procedures.

d. Arrangements should be made to copy weather broadcasts that include predictions of magnetic storms. It is sometimes possible to warn operators several hours in advance of magnetic storms and give them maximum opportunity to prepare against communication blackout.

e. Operators should be trained in the emergency rigging and use of a balloon-suspended antenna, before its use is mandatory.

5. Radio Equipment

a. Check against allowance and condition well before departure for Arctic operations. Radio equipment in excess of the normal allowance, if required, should be installed. All radio equipment should be thoroughly checked to ensure that all electronic equipment is in peak operating performance.

b. Spare parts should be carefully inventoried and an additional stock of the most vital items obtained.

c. Communication facilities for high-latitude operation should certainly include a transmitter with a high-frequency

operating range of at least 26 MHz. Transmitters should have substantial power capabilities. Transmitters and receivers should be calibrated on the various frequencies which might be used in order to afford the most flexible operations possible.

d. In order for radioteletype (RATT) weather data to be satisfactory over all frequencies, the following equipment should be installed: a frequency-shift keyer (AN/URA-17) (this is a diversity reception type of converter comparator) and a teletype printer incorporating weather symbols for use in the ship's spare Model 28 teletypewriters. This installation will extend RATT reception to lower frequencies where signals are consistently stronger and will provide diversity reception to combat fading at any particular frequency.

e. For communications with aircraft, ensure that the flagship has suitable VHF/UHF equipment permanently installed. The flagship must also have equipment to guard all required voice circuits.

f. The beachmaster should be assigned an administrative circuit for ship-to-shore, boat-to-shore communications. Portable PRC 77 transceivers are excellent for boat communications.

6. Antennas. To capitalize on the advantages of low-frequency operation and very-low-frequency reception during blackout periods, antenna systems in addition to those installed probably will be required. To utilize the important lower frequencies during ionospheric disturbances, procedures should be worked out for installing temporary transmitting antennas of the greatest length and height practicable. Sound communication planning should include Kytoon and the knowledge of how to rig this balloon-suspended antenna. Alterations to antennas,

trunks, and coupling devices should be effected well before sailing.

7. List of Fixed and Mobile Radio Stations. A list of all fixed and mobile radio stations in the general operating area — with their positions, call signs, and working frequencies indicated — should be prepared and made available to operating personnel by posting in radio rooms and communication offices.

8. Bibliography

a. Registered publications should be carried in sufficient supply to last for the length of possible stay in the Arctic.

b. Crypto systems combined for communications with friendly foreign nations should be included in registered publications on board.

c. Recommended general reading includes:

(1) Basic Cold Weather Manual, Army Department, FM-31-70

(2) Northern Operations, Army Department, FM-31-71

(3) Polar Guide, Air Force Department, AFTRC 50-0-23.

d. Reports

(1) "Beaufort Sea Expeditions," USS Burton Island, August - September 1951

(2) "Beaufort Sea Oceanographic Expedition," August 1950

(3) "Bering Sea Expedition," TU-56.1.5, January - March 1951

(4) "Canadian Arctic Annual Reports," Navy Department

(5) "The Marion Expedition to Baffin Bay and Davis Strait" (three parts), USCG Bulletin No. 19

(6) "OPERATION BLUEJAY," CTG 118, June - August 1950

(7) "OPERATION NANOOK," TF 68, July - September 1946

(8) "OPERATION NANOOK - 51," TG 49.2, July - August 1951

(9) "Point Barrow Resupply Expedition," BAREX-51, July - August 1951

(10) "Report of Joint Canadian United States Beaufort Sea Expedition," Summer, 1953.

e. Special publications relating to Arctic communications, not normally carried aboard United States naval vessels, should be drawn. They include:

(1) Basic Radio Propagation Predictions, U.S. Navy, NTP 6

(2) Recommended Frequency Band and Frequency Guide, U.S. Navy, NTP 6, SUPP 1

(3) Equidistant Chart of the World Centered in the United States, H.O. 6705, U.S. Hydrographic Office

(4) International Telecommunications Union Publication - International Frequency Registration Band

(5) Ionospheric Radio Propagation Circular 462, National Bureau of Standards, Washington, D.C.

(6) Radio Aids to Navigation, H.O. 117, U.S. Navy Hydrographic Office

(7) U.S. Air Force Radio Facility Charts, North Atlantic Area

(8) U.S. Air Force Radio Facility Charts, North Pacific Area.

C.4 MARINE CORPS COMMUNICATIONS

The following information gives a brief description of planning problems for which an amphibious troop communication officer must find solutions. Amphibious troop communication planning procedures are prescribed in the following publications:

1. U.S. Marine Corps Staff Manual, 1955 (NAVMC 1110-AO3F)
2. FMFM-10-1, Communications
3. NWP 22 and related NWPs.

In each of these publications, the communication planning problem is explained in relation to the development of other staff planning activities with which it progresses.

Certain communication publications, which derive from the planning procedures, are common to all operations of amphibious troops. The general requirements and chronology of communications planning is discussed in FMFM-10-1, which treats thoroughly the relationship of communication planning to other staff planning activities.

The following paragraphs deal solely with the purposes of the various communication planning documents in the formation of the communication plan.

C.4.1 Estimate of the Communication Situation. This document is a staff study prepared concurrently with similar estimates on other subjects. Its purpose is to describe the communication requirement, provide a check list for subsequent planning, and form a basis for the issuance of written communication orders to communication subjects.

In arriving at the estimate of the communication situation the communication officer:

1. Considers the mission of the unit
2. Considers enemy and friendly situations
3. Determines various courses of action
4. Compares various courses in the light of the requirements of the mission
5. Determines the best one of the various courses
6. Recommends the best course to the commander.

The estimate of the communication situation at the division and higher echelon will be written and will form a part of the commander's estimate of the situation. At lower levels, the estimate may be oral and may be reflected only in paragraph 5 of the unit's operation order.

Factors to be considered in preparing the communication estimate are:

1. Strength, disposition, and capability of enemy and friendly communication-electronic activities
2. Time and space for planning
3. Climate and weather
4. Staff personnel
5. Scheme of maneuver.

C.4.2 Communication Standard Operating Procedure. This document prescribes the routine methods of installation, operation, and maintenance of communication agencies that are not contained in approved doctrinal publications. During the planning phase of an operation, as many communication problems as

possible are considered with the idea of resolving them into a communication standard operating procedure (COMMSOP). Such decisions will be arrived at after considering previous experience and field reports.

The COMMSOP should be published as early in the training phase as possible to provide a basis for training communication troops and to familiarize staff officers and subordinate commanders with the details of the system. The COMMSOP may undergo only minor changes for subsequent use in successive operations. Each headquarters down to and including the battalion landing team will prepare a COMMSOP.

At each echelon of command, the COMMSOP will vary in accordance with the desires of the commander, state of training of communication personnel, peculiarities of the area of operations, and the communication equipment and supplies which are available. However, each echelon must base its COMMSOP on that of the next higher echelon.

C.4.3 Communication Operation Instructions. This document is an order issued for the technical control and coordination of communication agencies. Whereas the COMMSOP is, in effect, the tactical employment plan for communications, the communication operation instructions (COI) is the technical plan. The communication officer assigns radio frequencies and call signs, telephone switching central names, cipher keys, and similar items through the COI. Through the COI he exercises technical control over the communication agencies and troops of the command.

To maintain communication security, the contents of most COI items are changed frequently and cover only a short period of time. However, the COI should be issued early in the training phase to provide for training in the use of the communication system.

C.4.4 Paragraph 5 of the Operation Order. Paragraph 5 of the operation order contains

special communication instructions for a particular operation. When communication instructions are brief, they may be covered thoroughly in the basic paragraph. When they are so lengthy as to be inappropriate for the basic order, they are published as an annex to the order and paragraph 5 merely refers to the annex. Paragraph 5 is subdivided and lettered as follows:

- 5a Refers to communication annex, COI, COMMSOP, or, in the absence of an annex, lists special communication considerations.
- 5b States the location of the issuing unit's command post, prescribes subordinate command post locations, and the location of the command post of the senior unit. The proposed axis of communication is also mentioned here.
- 5c Refers to the location of advance communication centers and their time of opening.
- 5d States the effective time zone and instructions regarding it.
- 5e Contains a statement of command relationships.

C.4.5 Communication Annex to the Operation Order. The communication annex contains material that amplifies the provisions of the basic operation order, particularly paragraph 5, to incorporate communication information not included in paragraph 5, the COMMSOP, or the COI, which is essential for the operation. The communication annex, in addition, may actually be the operation order for the communication unit of the command; for example, the communication annex of a corps operation order may be used as the operation order for the corps communication battalion.

C.4.6 Combinations of Communication Orders. Not all the previously discussed

communication documents need be used in one operation. Frequently, the assigned mission permits operations with less than a complete issuance of orders. The three general groupings listed below are common methods of employment of communication orders:

1. Paragraph 5, COMMSOP, and COI — This combination is used when the assigned tactical mission requires little or no deviation from the provisions of the effective communication operation instructions and communication standing operating procedure.
2. Paragraph 5, COMMSOP, COI, and Communication Annex — This combination is used when the mission prescribes variations from the communication standing operating procedure or communication operation instructions that are more substantial than can be listed in paragraph 5.
3. Paragraph 5, COMMSOP, and Communication Annex — This combination is used primarily when integral units of an organization publishing a communication operation instructions are detached for long periods from their parent organization. The detached units receive all necessary technical information in a communication annex, obviating the necessity of altering the communication operation instructions held by all units of the command.

C.5 COMMUNICATION PLANNING FACTORS

Communication advanced base planning will be as prescribed in Advanced Base Initial Outlifting List, NAVSANDA 28; Catalogue of Advanced Base Functional Components, OPNAV INSTRUCTION 04040.22; and NAVSEA instruction books for individual advanced base functional components. All communication functional components are "C" components. These components serve as a useful guide in connection with planning for fixed installations ashore.

Personnel planning factors for ships and aircraft are determined from the military characteristics around which they are constructed and the mission which they are to perform. Personnel planning factors for shore installations should be determined on a communication operational requirement basis. This is accomplished best by first listing all radio and landwire circuits required to support the mission of the shore installation concerned, using a watch-in-four factor. First, compute the number of operators required per circuit; second, knowing the number of circuits and equipments required and the capability of maintenance personnel, determine the number of maintenance and repair personnel; third, compute the administrative and clerical personnel on the basis of the size of the shore installation to be administered; fourth, on the basis of the total number of personnel from the first three computations, estimate the number of supporting (housekeeping) personnel required. In making these computations the BUPERS manual and effective OPNAV and BUPERS instructions should be consulted.

C.5.1 Means of Communication. The means of communication in order of preference from the point of view of transmission security are as follows:

1. Messenger
2. Registered mail
3. Approved wire circuits
4. Ordinary mail
5. Nonapproved wire circuits
6. Visual means
7. Sound systems
8. Radio.

No one means of communication possesses all the desirable military characteristics of reliability, security, flexibility, and speed; therefore, alternate means should be provided. The two objectives to keep in mind when evaluating the various means of communication are speed versus communication security. The individual preparing a message bases his choice between a telephone call and a written message on the following factors:

1. Need for discussion
2. Need for a record (reliability)
3. Need for speed
4. Need for secrecy.

If the result can be obtained as well by means of a letter as compared to telephone or message, use mail.

C.5.2 Communication Security. The security of communications is discussed in ACP 122, Communication Instructions, Security. NWP 4, Basic Operational Communications Doctrine, lists the commands from which advice concerning communication security may be obtained.

C.5.3 Transmission of Messages

C.5.3.1 Total Delivery Time. Normally, a message is quickly processed and delivered to the addressee by the most expeditious means. However, the total delivery time of any message is affected to some degree by any or all of the following factors:

1. Clarity and correctness of address
2. Tactical situation
3. Availability of means of communication
4. Encrypting and decrypting
5. Traffic load on available circuits

6. Traffic congestion due to overgrading in precedence
7. Efficiency of operators and circuit discipline
8. Equipment failures
9. Weather, including ionospheric and other radio propagation disturbances.

C.5.3.2 Processing and Transmission Time.

The time required for all communication center operations depends on the proficiency of personnel and varies with the degree of training. The encryption or decryption rate of a message varies from about 1 to 25 words or groups per minute, depending upon the system employed and the efficiency of personnel. The time required for all communication center recording operations varies from 3 to 15 minutes per message. The following average message rates are based upon calling, transmitting, and acknowledging receipt of a message of 10 code or cipher groups or 10 words of clear text with the heading. Operator skill, transmission interference, operating difficulties, and other factors will obviously modify these rates.

<u>Means of transmission</u>	<u>Messages per hour</u>
Radio telephone	8 to 12
Flashing light	10
Telephone	10 to 15
Panel (code groups per hour)	15
Teletypewriter (single-line)	50 to 80
Teletypewriter (duplex)	100 to 150

C.5.4 Radio Communication. Radio, when properly used, furnishes a valuable means of communication. It is used by all units of a modern navy and is essential for

communication over large bodies of water, over territory controlled by hostile forces, and over terrain where construction of wire lines is impractical.

Radio telephony is used when person-to-person contact is required and when secrecy is relatively less essential. By using prearranged voice codes in radiotelephony, varying degrees of security can be maintained. However, security breakdowns due to the improper use of radiotelephony have caused the most serious losses in combat effectiveness that can be blamed upon communications. It is imperative that anyone who uses radiotelephone be thoroughly familiar with the prescribed procedure and the probability of interception.

C.5.4.1 Modulation. Information is conveyed from a radio transmitter to a radio receiver by varying the radiated radio wave. This varying action is called modulation and is accomplished within the transmitter. There are a number of methods of effecting the modulation process, but military radio equipment generally uses one of the following systems:

1. Amplitude modulation (AM)
2. Frequency modulation (FM)
3. Pulse-position, time-division modulation.

Radio equipment modulated by any one of the above methods will not operate with equipment that uses either of the other two methods. Interoperation between radio equipment using the same modulation method is largely determined by frequency coverage, design, and range in miles.

C.5.4.2 Capabilities. Radio equipment varies in size and weight. Tactical radio equipment is readily transportable and may be placed in operation quickly. Radio sets used at large headquarters generally are less transportable. Some are installed in vehicles and constituted as complete mobile stations; others are of semi-fixed type and selection of particular

installation sites may be required. Radio is the only means of long-range communication with or between ships, aircraft, and vehicles. Radio is the most desirable means to use when the transmission is to be received simultaneously at a great number of points. It enables transmission of messages over large bodies of water or hostile territory.

C.5.4.3 Limitations. The distance and reliability of radio communications are affected to a varying degree (depending upon the frequency used, the type of antenna employed, the power output, and the type of modulation or keying) by the weather, by the nature of the intervening terrain or obstacles, by the time of day, by the season of the year, and by magnetic disturbances. Necessary encryption and decryption of messages and the use of authenticators delay transmission of messages and do not provide absolute security. False messages transmitted by the enemy are designed to create confusion and cause action to his advantage. Enemy action creating interference on or jamming of frequencies used tends to deny the use of radio communication on affected frequencies. Since the effectiveness of radio may be limited by the availability of frequencies for a given unit or operation, efficient planning for maximum use of available frequencies is essential. Radio equipment is fragile and complex, requires specially trained personnel for operation, and requires careful installation and maintenance.

C.5.4.4 Precautions. Radio intelligence is one of the enemy's best means of obtaining information of plans and operations by:

1. Intercepting messages
2. Analyzing traffic
3. Locating radio transmitters.

By locating a transmitter, the enemy may approximately locate headquarters and other important installations. He can then obtain information as to the strength, constitution,

and capabilities of forces and check on operational movements.

Enemy intelligence activities can be counteracted to a great degree by countermeasures such as jamming, dummy stations, and deception. However, these countermeasures have the disadvantage of limiting the use of radio communications.

C.5.5 Visual Communication. Visual communication generally is considered an auxiliary means of communication. Visual procedure is based on radiotelegraphy procedure. Such differences as exist are necessitated by the differences in the mechanics of radiotelegraphy and visual telegraphy. Visual communication is employed particularly for transmitting prearranged signals, short code groups, and brief messages when fleet dispositions permit and security is a factor. Visual communication equipment includes:

1. Flashing light and yardarm blinker
2. Hand flags (semaphore)
3. Pyrotechnics
4. Flaghoist
5. Panels
6. Colored lights.

C.5.6 Wire Communication. Wire communication is more difficult to install than radio communication, but once installed is capable of carrying a greater volume of traffic for a given number of personnel than radio. Wire communication is more reliable and less easily intercepted than radio, but it is limited in range and to points of geographical contact. Teletype circuits can be secured.

C.5.6.1 Telephone. Telephone communication is more reliable and less subject to mechanical and electrical failure than radio. It is also less easily intercepted. On the other hand,

telephone has some specific limitations. It requires considerable time, labor, material, and equipment to install, operate, and maintain at permanent installations. It is limited in range by the type of connecting circuit and by points of geographical contact. Since telephone normally provides no record of the message, each staff section must assume responsibility for notifying other interested staff sections of important incoming and outgoing messages. Navy Regulations require a written record to be made of all official telephone conversations.

C.5.6.2 Teletypewriter. The teletypewriter is a telegraph instrument designed for interchanging printed messages between two or more stations either by wire or radio transmission. Teletypewriter communication is rapid, reliable, and accurate in transmission and provides a printed record of each message. Transmission is only slightly less dependable over radio than wire. Equipment is available for providing increased security on teletypewriter circuits. Teletype has greater transmission range than telephone communication over the same type of line and it may operate as a secondary channel on telephone lines already established. By use of appropriate equipment, one voice circuit may provide a large number of teletypewriter channels. Teletypewriters are easily operated. Most typists can be quickly trained on a teletypewriter. The equipment has relatively few limitations and requires normal routine maintenance and adjustments by technically skilled personnel. Over landlines the circuit is limited in length by the type of circuit and by points of geographical contact. Radio teletype is subject to accidental or intentional jamming.

C.5.7 Messenger Communication. Messenger is a primary means of communication. Messenger should always be used for bulky material and for messages which can be delivered in less time than that required for encrypting, transmitting, and decrypting if electrical means were employed. There are two messenger systems, internal and external. The internal system provides a means of delivering messages locally from a communication center

to the addressee; the external system provides messenger service by Armed Forces Courier Service to remote locations. Either system may be operated on a scheduled or special basis as required.

C.5.8 Automated Communication. Automated communication systems have assumed a sizeable portion of the tasks performed by communication personnel. The use of these systems has resulted in quantitative and qualitative communication improvements. However, during the operations planning phase, the following considerations must be addressed: unique netting (system to system), security of remote terminations, long lead time for both hardware and software changes, and significant changes in capabilities. For a discussion of the latest developments in automated communication systems, see NTP 4, Naval Telecommunications Procedures.

C.6 BIBLIOGRAPHY

The basic United States Navy communication references are NWP 4, Basic Operational Communications Doctrine, and NTP 3, Telecommunications Users Manual. A complete and up-to-date list of U.S. Navy, Joint Army-Navy-Air Force, and Allied publications may be found in the current editions of Registered Publication Memoranda and OPNAVINST 05605.19, Status of COMTAC Publications.

C.7 EXPLANATORY NOTES ON FORM AND DISTRIBUTION

No specific form is prescribed for the communication plan, except that the heading, ending, and authentication follow examples for other annexes set forth in this publication. The content of the plan should be consistent with the requirements and principles of NWP 4. In practice, communication plans start out with a statement to the effect that "Communications are in accordance with (pertinent NWPs and associated JANAPs and ACPs), except as modified or amplified herein, and in accordance with

(superior's communication plan)." Attention is directed to NWP 4 in connection with stating the date and hour at which the communication plan will become effective.

The length and completeness of the communication plan depends entirely on the purpose of the plan or order which it supplements. It may contain as many or as few items as the communication planner feels are necessary to amplify the instructions contained in the related paragraphs of the order. The emphasis of the communication plan may change from one plan to the next depending on the mission of the command.

Additional copies of the communication plan should be provided to all participating units and extra copies of the call sign lists and special material, such as the local authentication

system, should be provided to all participating units. It saves manpower and reduces the likelihood of error if additional copies are distributed by the command issuing the basic order, rather than prepared separately by each subordinate command that requires them.

An example of a communication plan annex to an operation plan or order is shown in Figure C-4. The items listed in the example are a partial summary of the requirements of NWP 4.

An outline of the format and content for a joint communications-electronics annex is shown in Figure C-5. Amplifying instructions for this format are contained in ACP 121, US SUPP 1. Additional instructions for joint communications-electronics planning are contained in JOPS, Vol. I.

(SECURITY CLASSIFICATION)

Second Fleet
 Task Force 21
 USS _____, Flagship
 Plymouth, England
 DTG: 150900Z April 19 (Yr)
 Message Ref: 015/2

Operation Plan
 COMSECONDFLT No. 2-55
 Time Zone

ANNEX K
 Communication Plan

1. EFFECTIVENESS

- a. Communication in accordance with NWP 4 and appropriate Joint, Allied, and Navy Department publications. NWP 4 is effective throughout as applicable to the existing situation unless modified or amplified by this annex. Any reference made to a publication or instruction will be to the basic with the understanding that the effective edition is intended for use. The interpretation as to the applicability of a specific article is the function of the command concerned.
- b. This annex is effective concurrently with the basic Operation Order.

2. REPORTING VITAL INFORMATION

- a. Reports of vital information shall be made as prescribed in NWP 4 and ATP 1, Vol. I.

3. MOVEMENT REPORTS

- a. CTF 21 will originate the following classified wartime movement reports:
 - (1) Departure report for TGs 21.0, 21.1 and 21.4
 - (2) Correction reporting joining of TG 21.2 and 21.3
 - (3) Correction reporting detachment of TG 21.2 and 21.3
 - (4) Arrival report for TGs 21.0, 21.1 and 21.4
- b. CTGs 21.2 and 21.3 make classified wartime movement reports for own units except as prescribed above.

4. CRYPTOGRAPHIC INSTRUCTIONS

- a. Normal cryptographic aids will be employed for nonexercise traffic.
- b. Cryptographic aids listed in Appendix IV will be employed for exercise traffic.

5. RECOGNITION AND IDENTIFICATION

- a. Unlettered ACP 150-158 series will be employed for recognition.

(SECURITY CLASSIFICATION)

Figure C-4. Example of a Communication Plan (Annex) (Sheet 1 of 4)

(SECURITY CLASSIFICATION)

6. AUTHENTICATION
 - a. Be prepared to use current authentication publications, as appropriate for authentication.
7. CONTROL OF ELECTROMAGNETIC RADIATIONS (EMCON)
 - a. Electronic silence will be imposed on signal by CTF 21.
 - b. Task Group Commanders will comply with CINC _____ FLT INST. 03510.1.
8. INTERFERENCE, JAMMING, AND IMITATIVE DECEPTION
 - a. Jamming and Imitative Deception are not authorized for this exercise.
 - b. Make reports of Interference and Jamming encountered in accordance with appropriate fleet commander's directives.
9. RADIO NETS
 - a. Formation of radio nets will be in accordance with frequency allocations promulgated by Commander Naval Telecommunications Command, implemented by fleet and force commanders and amplified by Appendixes I and II to this annex.
 - b. Unless otherwise directed, CTF 21 is NCS for TF 21 Operations/Admin (radiotelegraph). In the event of casualty to CTF equipment, the senior officer able to participate will automatically assume the function of NCS.
10. EXERCISE COMMUNICATIONS
 - a. The short title "____EX" shall appear in plain language as the first phrase of every plain language or on-line encrypted exercise message. For off-line encrypted messages, the phrase will be inserted after encipherment, and will appear as the first group of the text as transmitted.
 - b. Messages not destined for or readily susceptible to intercept by units outside TF 21 will be excepted from the provisions of paragraph 403.
 - c. The phrase "EMERGENCY STOP EXERCISE," transmitted by any means and properly authenticated, will indicate that exercise conditions shall be terminated immediately. (See Note E, Appendix I).
 - d. Any message directing the resumption of exercise conditions will be originated only by CTF 21.
11. CALL SIGNS, ADDRESS GROUPS, AND ROUTING INDICATORS
 - a. Call signs will be those regularly assigned to participating units. (See Appendix III to this annex.)
 - b. Call signs will not be encrypted by aircraft.
 - c. Surface vessels and submarines will encrypt 4-letter call signs. Under the present system only those call signs which are provided with variants are to be used. Wartime variants will not be used.

(SECURITY CLASSIFICATION)

Figure C-4. Example of a Communication Plan (Annex) (Sheet 2 of 4)

(SECURITY CLASSIFICATION)

12. CODES AND CODEWORDS

- a. NWP 4 is noted for compliance.

13. FREQUENCIES

- a. Frequency assignments in accordance with Appendices I and II to this annex.

14. PERSONAL RADIO RECEIVERS

- a. Commanding officers will exercise proper surveillance over broadcast receivers on board their ships. During the period of this exercise no commercial type receivers will be operated unless compliance with NWP 4 has been ensured.

15. FLEET BROADCASTS

- a. CTF 21 will originate a message to Area NAVCAMS_____ shifting TF 21 to_____ Area broadcast commencing at 250001Z March.
- b. Surface vessels unable to copy broadcast because of inoperative equipment make guard arrangements with their unit commanders. Normally all units will be expected to maintain own fleet broadcast guard at sea.
- c. COMSUBDIV_____ (CTF 21.1) will make necessary movement reports regarding submarine broadcast arrangements, keeping CTF 21 informed.
- d. All ship-shore traffic will be transmitted to CTF 21 for relay to appropriate shore communication activity.

16. VISUAL COMMUNICATIONS

- a. Visual signaling will be used for communications in preference to radio to the maximum extent.
- b. Adapters with amber filters will be used between sunset and sunrise.
- c. While ships of a division are in adjacent stations on the screen, division commanders will assume visual responsibility for ships under their command. ACP 129 will apply in other situations.

17. WEATHER COMMUNICATIONS

- a. CTF 21 will make weather reports in accordance with provisions of NWP 4.
- b. Ships or units not in company shall make weather reports only as required by NWP 4.

18. EMERGENCY, DISTRESS, AND SAR COMMUNICATIONS

- a. Distress communications guard assignments are prescribed in Appendices I and II of this annex.
- b. Ships or units not in company shall maintain a continuous split-phone guard on the distress frequencies prescribed.
- c. Combat scene of action and ASW incident communications shall be as prescribed in Appendices I and II of this annex.

(SECURITY CLASSIFICATION)

Figure C-4. Example of a Communication Plan (Annex) (Sheet 3 of 4)

(SECURITY CLASSIFICATION)

19. COMMUNICATIONS IN OPERATIONS

- a. Communications shall be as prescribed in Appendixes I and II to this annex.

20. SUBMARINE COMMUNICATIONS

- a. Submarine Communications shall be as prescribed in NWP 4, and appropriate fleet and force directives.
- b. Attention of all units directed to NWP 4 for compliance when applicable.
- c. CTG 21.3 may issue such supplementary instructions regarding submarine communications as he may consider necessary, keeping CTF 21 informed.

21. AIRCRAFT COMMUNICATIONS

- a. Commanders concerned with the operation of aircraft will ensure compliance with the appropriate portions of NWP 4.
- b. Communications between aircraft and surface ships/submarines shall be as prescribed in Appendix II to this annex.

22. MOBILIZATION COMMUNICATIONS

- a. Be prepared to comply with the provisions of NWP 4 without prior notice of warning.

Appendixes:

- I Surface Ship and Submarine Frequency Plan
- II Aircraft Frequency Plan
- III Call Signs
- IV Cryptographic Instructions

B T

(Signature of Commander)

B T

Vice Admiral, U.S. Navy
Commander Second Fleet and CTF 21

Authentication

X Y

Flag Secretary

(SECURITY CLASSIFICATION)

Figure C-4. Example of a Communication Plan (Annex) (Sheet 4 of 4)

(SECURITY CLASSIFICATION)

FORMAT

NAME OF ISSUING HEADQUARTERS
 COMMUNICATIONS-ELECTRONICS PLAN (ANNEX)
 (FOR)
 (TITLE OF BASIC PLAN SUPPORTED)

FILE NO:
 SERIAL NO:
 (SUPERSEDES):

DATA-
 REFERENCES:
 MAPS:
 DIAGRAMS:
 PHOTOGRAPHS:

PART I

INDEX AND INSTRUCTIONS

1. TABLE OF CONTENTS: (A Statement of the contents of the plan.)
2. TABLES OF APPENDICES: (A listing of the appendices to the plan by subject.)
3. TABLE OF REFERENCE MATERIAL: (A listing of all basic documents or material required for complete understanding.)
4. ADMINISTRATIVE INSTRUCTIONS: (Brief statement as to format used, means for amending, disposition of documents to include destruction, method of referencing, making of extracts and security classification.)

PART II

INTRODUCTION

5. GENERAL REMARKS: (Introduction. A brief general statement of the objectives of the basic plan.)
6. STATEMENT OF THE SITUATION:
 - a. Enemy Situation: (An estimate of the enemy's ability to prevent achievement of our communications-electronics mission, and of those facilities under his control which might be converted to our use. Reference to the Intelligence Annex should be made whenever applicable.)
 - b. Friendly Situation: (An analysis of friendly facilities, resources, and organizations which may affect subordinate communications-electronics planning.)
7. ASSUMPTIONS: (Suppositions and conclusions regarding both our own and the enemy's capabilities acceptable as essential criteria for the formulation of the communications-electronics plan or annex.)

(SECURITY CLASSIFICATION)

Figure C-5. Joint Communications-Electronics Plan (Annex) (Ref: ACP 121, US SUPP 1) (Sheet 1 of 2)

(SECURITY CLASSIFICATION)

8. **GUIDING PRINCIPLES:** (A statement reiterating or specifying departures from out of date standard operating procedures and doctrines, and those which may influence long term planning.)

9. **OPERATIONAL CONCEPT, CAPABILITIES, AND LIMITATIONS OF THE BASIC PLAN:** (A brief summary of how the operation is visualized, emphasizing those aspects affecting communications-electronics requirements, capabilities, and limitations.)

PART III

COMMUNICATIONS-ELECTRONICS MISSION

10. **THE MISSION OR INTENTIONS:** (A statement of what the communications-electronics effort is designed to achieve.)

PART IV

ASSIGNMENT OF RESPONSIBILITIES AND COORDINATION OR SUBSIDIARY OPERATIONS

11. **DELEGATION OF COMMUNICATIONS-ELECTRONICS TASKS AND RESPONSIBILITIES TO MAJOR COMPONENTS OF THE FORCE:** (A subparagraph for each subdivision or component of the force assigning individual communications-electronics tasks and responsibilities. Any instructions which apply only to that subdivision or component will be included. Instructions which apply to two or more subdivisions or components should be placed in the final subparagraph.)

12. **SPECIAL MEASURES:** (A subparagraph for each activity, special measure, and procedure, necessary for the completion of the mission, not covered in paragraph 11. Examples: (1) electronics-counter-measures, (2) frequency plans, (3) IFF procedures.)

PART V

COMMUNICATIONS-ELECTRONICS LOGISTICS SUPPORT

13. (Broad instructions concerning logistics for the conduct of the operation; these instructions are frequently included in a separate document to which reference should be made.)

PART VI

ADMINISTRATION

14. (Miscellaneous matters which are important but may not be classified according to any of the above subparts of the plan.)

LIST OF APPENDICES: (When any of the foregoing are lengthy the details should be included as appendices and appropriate annotations made in the pertinent paragraphs.)

DISTRIBUTION:

(SECURITY CLASSIFICATION)

Figure C-5. Joint Communications-Electronics Plan (Annex) (Ref: ACP 121, US SUPP 1) (Sheet 2 of 2)

APPENDIX D

Supplement to Intelligence Planning

D.1 INTELLIGENCE DATA REQUIREMENTS

The following paragraphs provide a check list of data which intelligence must supply for the conduct of naval operations. The list has three parts: air strike operations, surface force operations, and amphibious operations. For an operation that combines two or more of these types of warfare, considerable duplication will be found and the lists should be adjusted accordingly.

D.1.1 Air Strike Operation Check List

D.1.1.1 Geography. The geography of the entire potential target area, with special emphasis on appearance from the air of recognizable landmarks. Include:

1. Rivers
2. Lakes
3. Bays
4. Mountains
5. Town and city plans or layouts
6. Vegetation characteristics
7. Transportation networks (roads, railroads, power lines, canals, and so forth)
8. Off-lying islands

D.1.1.2 Meteorology

D.1.1.2.1 Climate

1. General

2. Climatological averages, by months, showing rain; snow; thunderstorms; gales; poor visibility; fogs; rainfall; cloud cover; maximum, mean, and minimum temperatures; and humidity

3. Studies of typical weather conditions for particular seasons of the year, with emphasis on the frequency of occurrence of favorable and unfavorable operating conditions

- a. Hurricanes

- b. Tornadoes

- c. Cyclones

D.1.1.2.2 Winds (Including Upper-Air)

1. General
2. Expectancy of prevailing winds with their direction and velocity
3. Quiet periods

D.1.1.2.3 Flying Conditions

1. General
2. Ceiling
3. Visibility (fog, haze, dust, smoke)
4. Icing (level, intensity, type)

D.1.1.2.4 Miscellaneous Phenomena

1. Sunrise and sunset
2. Moonrise and moonset

3. Other

D.1.1.3 Hydrography

D.1.1.3.1 Water Depths. Depths of water in harbors and anchorages to determine effectiveness of aerial torpedoes or aerial mines.

1. Offshore currents (strength and direction at all depths)
2. Inshore currents (strength and direction at all depths)
3. Sound conditions
4. Sea temperature gradients
5. Bottom type
6. Salinity
7. Fouling
8. Sea ice
9. Land-fast ice

D.1.1.3.2 Tides

1. General
2. Range of springs and neaps
3. Duration of rises, falls, and stands
4. Hourly tidal data at beach areas
5. Meteorological effects on tides

D.1.1.3.3 Sea and Surf

1. General
2. Expectancy of height of surf with winds from varying directions and of various velocities

3. Ice formations on sea

4. Audio conditions

5. Temperature of air and water

D.1.1.4 Characteristics and Recognition Data**D.1.1.4.1 Naval Vessels**

1. Recognition data
 - a. Silhouettes
 - b. Aerial views
2. Characteristics data
 - a. Dimensions
 - b. Armament
 - c. Protection
 - d. Propulsion
 - e. Performance
 - (1) Speed
 - (2) Cruising radius
 - (3) Turning circles
 - (4) Weathering characteristics
 - (5) Plane launching limitations

D.1.1.4.2 Aircraft

1. Naval aircraft (including land-based)
 - a. Recognition data
 - (1) Silhouettes
 - (2) Aerial views

b. Characteristics data

- (1) Dimensions
- (2) Engine
- (3) Weight
- (4) Fuel (U.S. gal.)
- (5) Armament
- (6) Bomb load
- (7) Speeds
 - (a) Cruising
 - (b) Maximum
- (8) Capabilities and nature of electronic equipment
- (9) Rate of climb (ft./min.)
- (10) Ranges
 - (a) Normal
 - (b) Maximum (external tanks)
 - (c) Combat radius
- (11) Protection
- (12) Radius of turn
- (13) Speed of dive
- (14) Ceilings
 - (a) Service
 - (b) Maximum

2. Air forces other than naval

a. Recognition data

(1) Silhouettes

(2) Aerial views

b. Characteristics data

- (1) Dimensions
- (2) Engine
- (3) Weight
- (4) Fuel (U.S. gal.)
- (5) Armament
- (6) Bomb load
- (7) Speeds
 - (a) Cruising
 - (b) Maximum
- (8) Capabilities and nature of electronic equipment
- (9) Rate of climb (ft./min.)
- (10) Ranges
 - (a) Normal
 - (b) Maximum (external tanks)
 - (c) Combat radius
- (11) Protection
- (12) Radius of turn
- (13) Speed of dive
- (14) Ceilings
 - (a) Service
 - (b) Maximum

D.1.1.4.3 Merchant Ships

1. Recognition data
 - a. Silhouettes
 - b. Aerial views
2. Characteristics data
 - a. Dimensions
 - b. Armament
 - c. Protection
 - d. Propulsion
 - e. Performance
 - (1) Speed
 - (2) Cruising radius
 - (3) Turning circles
 - (4) Weathering characteristics
 - f. Capabilities and nature of electronic equipment

D.1.1.5 Organizational and Deployment

D.1.1.5.1 Navy

1. Ships
 - a. Organization
 - (1) Fleet, task force, and so forth
 - (2) Command relationships
 - (3) Characteristics of commanders
 - b. Location and operational availability of vessels
 - (1) Operational availability

- (2) Numbers and types
- (3) Locations
 - (a) Area
 - (b) Specific location
- (4) Replacement from other areas
- (5) Time factors

2. Aircraft

- a. Ship-based
 - (1) Organization
 - (a) Group, wing, and so forth
 - (b) Command relationships
 - (c) Characteristics of commanders
 - (2) Operational availability of planes in or adjacent to operating areas
 - (a) Operational availability
 - (b) Numbers and types
 - (c) Locations (area, specific location)
 - (d) Replacement from other areas
 - (e) Time factors

- b. Land-based
 - (1) Organization
 - (a) Group, wing, and so forth
 - (b) Command relationships
 - (c) Characteristics of commanders

(2) Operational availability of aircraft in or adjacent to operating areas

- (a) Operational availability
- (b) Numbers and types
- (c) Locations (area, specific location)
- (d) Replacement from other areas
- (e) Time factors

D.1.1.5.2 Air Forces Other Than Naval

- 1. Organization
 - a. Group, wing, and so forth
 - b. Command relationships
 - c. Characteristics of commanders
- 2. Operational availability of aircraft in or adjacent to operating areas
 - a. Operational availability
 - b. Numbers and types
 - c. Locations
 - (1) Area
 - (2) Specific location
 - d. Replacement from other areas
 - e. Time factors

D.1.1.5.3 Ground Order of Battle

- 1. Composition
- 2. Disposition
- 3. Strength
- 4. Training

- 5. Tactics
- 6. Logistics
- 7. Combat effectiveness
- 8. Miscellaneous data

D.1.1.6 Aviation Personnel

- 1. Strength (regular and reserve)
 - a. Morale
- 2. Degree of mobilization
- 3. Efficiency
 - a. Flying
 - b. Gunnery and bombing
 - c. Maintenance
 - d. Communication
 - e. Capabilities and nature of electronic equipment
 - f. Reconnaissance
- 4. Available replacements

D.1.1.7 Target Data. (Recommendations as to importance of all land targets are necessary.)

D.1.1.7.1 Airfields

- 1. Name, with alternates
- 2. Map references
- 3. General location (descriptive)
- 4. Geographical and grid coordinates
- 5. Dimensions

- 6. Classification
 - a. Civil or military
 - b. Suitability for types
 - (1) Jet
 - (2) Conventional
- 7. Number and location of hangars and shops
- 8. Dispersal facilities (include number, size, and location of hardstands and revetments)
- 9. Aircraft counts, by date, with photographic references if photos are available, by type and location
- 10. General information (types of aircraft generally based there and general use to which field is put)

D.1.1.7.2 Harbors, Anchorages, Strategic Waterways, and Shipping Facilities

- 1. Moorings and berthing
 - a. Types
 - b. Location
 - c. Size
- 2. Fuel facilities
 - a. Capacity
 - b. Location
- 3. Repair and construction facilities
 - a. Types
 - (1) Drydocks

- (2) Shipyards
- (3) Submarine pens
- b. Capacity
- c. Construction
- d. Location
- 4. Potential navigational hazards and locations
 - a. Bridges
 - b. Tunnels
 - c. Nets and booms
 - d. Other hazards
- 5. Types of ships
- 6. Volume of traffic

D.1.1.7.3 Transportation and Communication

- 1. Types, appearance from air, vulnerable features, importance
 - a. Motor and railroad systems
 - (1) Marshaling yards
 - (2) Main junctions and terminals
 - (3) Tunnels and bridges
 - (4) Shops
 - b. Electric power lines and cables
 - (1) Generating plants
 - (2) Hydroelectric dams and reservoirs
 - (3) Relay stations

D.1.1.7.4 Industrial Targets of All Types Subject to Aerial Attack

1. Types and locations, appearance from air, most vulnerable features, target priority

- a. Aircraft factories and assembling plants
- b. Armament factories
- c. Ammunition factories
- d. Vehicle factories and assembly plants
- e. Railroad repair shops
- f. Chemical plants
- g. Warehouses (any stockpiling activities of strategic material such as light alloys, fuels, and so forth)
- h. Public utilities
- i. Pumping stations
- j. Pipe lines
- k. Petroleum refineries
- l. Any other important industrial target

D.1.1.7.5 Troop Concentrations

- 1. Number and location of barracks
- 2. Number and location of ammunition and supply dumps

D.1.1.7.6 Enemy Defenses

- 1. Active defensive installations
 - a. Pillboxes, blockhouses, casemates, turrets, caves
 - b. Bunkers, trenches, tunnel complexes

c. Searchlights

d. Radar

(1) Types

(2) Capabilities and limitations

(3) Appearance from sea and air

e. Main defense organization (include supporting positions)

2. Passive defenses

a. Camouflage methods

b. Decoys

c. Dummies

3. Weapons and artillery (include guided missiles)

a. Nature and weapon

b. Location

c. Caliber

d. Intensity of fire

e. Areas under fire

f. Classification of fire

g. Types and supply of ammunition

h. Flak patterns

i. Range and limiting arc of fire of batteries

4. Appearance of defenses from air

a. Recognition features

D.1.1.8 Logistic Support Available

1. On land
 - a. Type
 - (1) Fuel depots
 - (2) Staging areas
 - (3) Storage facilities
 - (4) Repair facilities (naval vessels)
 - (5) Repair facilities (aircraft)
 - b. Capabilities and limitations
 - (1) Vulnerability
 - (2) Transportation
 - (3) Communication
 - (4) Protection
 - (5) Replenishment
 - (6) Location
 - (7) Power sources
2. Afloat
 - a. Capabilities and limitations of replenishment
 - (1) Ammunition
 - (2) Spare parts
 - (3) Medical stores
 - (4) Provisions
 - (5) Fuel (include aviation)

b. Capabilities and limitations of repair at sea

(1) Major

(2) Minor

c. Time factors

D.1.1.9 Enemy Capabilities

1. Estimate of enemy's knowledge of our objectives, intentions, and capabilities

a. Espionage and counterespionage

2. Morale

3. Naval

4. Air

5. Ground forces

6. NBC

D.1.1.10 Restricted Areas

1. POW camps

2. Neutral or nonbelligerent zones

3. Hospitals

D.1.1.11 Maps, Charts, and Aerial Photographs

1. Maps and charts

a. General areas

b. Approaches

c. Target charts

2. Photographs

a. High- and low-level verticals

- b. Obliques and approaches
- c. Trimetrogon coverage
- d. Radar
- e. Sonne
- f. Submarine
- g. Television
- h. Mosaics

D.1.1.12 Escape and Evasion

- 1. Safe areas
- 2. Partisan forces
 - a. General locations
 - b. Geographical and grid coordinates
 - c. Means of long-range identification and short-range recognition codes
- 3. Nets
 - a. Locations
 - b. Contact points
 - c. Safe houses
 - d. Recognition codes
- 4. Equipment or communication caches

D.1.2 Surface Force Operation Check List

D.1.2.1 Characteristics and Recognition Data

D.1.2.1.1 Naval Vessels

- 1. Recognition data
 - a. Silhouettes

- b. Aerial views
- 2. Characteristics data
 - a. Dimensions
 - b. Armament
 - c. Protection (include airplanes when assigned)
 - d. Propulsion
 - e. Performance
 - (1) Speed
 - (2) Cruising radius
 - (3) Turning circles
 - (4) Weathering characteristics
 - (5) Plane launching limitations
 - f. Capabilities and nature of electronic equipment
 - g. Mining and mine countermeasures

D.1.2.1.2 Aircraft

- 1. Naval aircraft (including land-based)
 - a. Recognition data
 - (1) Silhouettes
 - (2) Aerial views
 - b. Characteristics data
 - (1) Dimensions
 - (2) Engine
 - (3) Weight
 - (4) Fuel (U.S. gal.)

- (5) Armament
- (6) Bomb load
- (7) Speeds
 - (a) Cruising
 - (b) Maximum
- (8) Rate of climb (ft./min.)
- (9) Ranges
 - (a) Normal
 - (b) Maximum (external tanks)
 - (c) Combat radius
- (10) Protection
- (11) Radius of turn
- (12) Speed of dive
- (13) Ceilings
 - (a) Service
 - (b) Maximum
- (14) Capabilities and nature of electronic equipment

2. Air forces other than naval

a. Recognition data

- (1) Silhouettes
- (2) Aerial views

b. Characteristics data

- (1) Dimensions
- (2) Engine

- (3) Weight
- (4) Fuel (U.S. gal.)
- (5) Armament
- (6) Bomb load
- (7) Speeds
 - (a) Cruising
 - (b) Maximum
- (8) Rate of climb (ft./min.)
- (9) Ranges
 - (a) Normal
 - (b) Maximum (external tanks)
 - (c) Combat radius
- (10) Protection
- (11) Radius of turn
- (12) Speed of dive
- (13) Ceilings
 - (a) Service
 - (b) Maximum
- (14) Capabilities and nature of electronic equipment

D.1.2.1.3 Merchant Ships

- 1. Recognition data
 - a. Silhouettes
 - b. Aerial views
- 2. Characteristics data

- a. Dimensions
- b. Armament
- c. Protection
- d. Propulsion
- e. Performance
 - (1) Speed
 - (2) Cruising radius
 - (3) Turning circles
 - (4) Weathering characteristics
- f. Capabilities and nature of electronic equipment

D.1.2.2 Organization and Deployment

D.1.2.2.1 Navy

1. Ships

- a. Organization
 - (1) Fleet, task force, and so forth
 - (2) Command relationships
 - (3) Characteristics of commanders
- b. Location and operational availability of vessels in or adjacent to area of operations
 - (1) Operational availability
 - (2) Numbers and types
 - (3) Locations
 - (a) Area
 - (b) Specific location

- (4) Replacement from other areas
- (5) Time factors
- 2. Aircraft
 - a. Ship-based
 - (1) Organization
 - (a) Group, wing, and so forth
 - (b) Command relationships
 - (c) Characteristics of commanders
 - (2) Operational availability of aircraft in or adjacent to area of operations
 - (a) Operational availability
 - (b) Numbers and types
 - (c) Locations (area, specific location)
 - (d) Replacement from other areas
 - (e) Time factors
 - b. Land-based
 - (1) Organization
 - (a) Group, wing, and so forth
 - (b) Command relationships
 - (c) Characteristics of commanders
 - (2) Operational availability of aircraft in or adjacent to area of operations
 - (a) Operational availability
 - (b) Numbers and types
 - (c) Locations (area, specific location)

(d) Replacement from other areas

(e) Time factors

D.1.2.2.2 Air Forces Other Than Naval

1. Organization
 - a. Group, wing, and so forth
 - b. Command relationships
 - c. Characteristics of commanders
2. Operational availability of aircraft in or adjacent to area of operations
 - a. Operational availability
 - b. Numbers and types
 - c. Locations
 - (1) Area
 - (2) Specific location
 - d. Replacement from other areas
 - e. Time factors

D.1.2.3 Naval Personnel

1. Strength
 - a. Personnel available in immediate area
 - b. Personnel available for reinforcement
 - c. Personnel available for replacement
2. Degree of mobilization
3. Efficiency
 - a. Seamanship and flying
 - b. Gunnery and bombing

c. Engineering

d. Communication

e. Radar

f. Damage control

g. Fire control

4. Morale

D.1.2.4 Logistic Support Available

1. On land
 - a. Bases, present and projected
 - (1) Type
 - (a) Fuel depots
 - (b) Staging areas
 - (c) Storage facilities
 - (d) Repair facilities (naval vessels)
 - (e) Repair facilities (aircraft)
 - (2) Capabilities and limitations
 - (a) Vulnerability
 - (b) Transportation
 - (c) Communication
 - (d) Protection
 - (e) Replenishment
 - (f) Location
 - (g) Power sources
2. Afloat

a. Capabilities and limitations of replenishment

- (1) Ammunition
- (2) Spare parts
- (3) Medical stores
- (4) Provisions
- (5) Fuel (include aviation)

b. Capabilities and limitations of repair at sea

- (1) Major
- (2) Minor

c. Time factors

D.1.2.5 Objective Area

D.1.2.5.1 Availability of Charts

1. Reliability

D.1.2.5.2 Data from Recent Hydrographic Surveys

1. Information for submarine operations

- a. Average sea temperatures
- b. Sound conditions
- c. Temperature gradients
- d. Sea ice

2. Information for mining operations

- a. Tides
- b. Currents
- c. Type of bottom

d. Fouling

D.1.2.5.3 Usual Approaches

1. Buoyage system

D.1.2.5.4 Mined and Defensive Areas

1. Swept channels

D.1.2.5.5 Meteorology

1. Climate

a. General

b. Climatological averages, by months, showing rain; snow; thunderstorms; gales; poor visibility; fogs; rainfall; cloud cover; maximum, mean, and minimum temperatures; ice incidence; and humidity

c. Studies of typical weather conditions for particular seasons of the year with emphasis on the frequency of occurrence of favorable and unfavorable operating conditions

d. Ionospheric disturbances

2. Winds (including upper-air)

- a. Special conditions (storms and so forth)
- b. Expectancy of winds with direction and velocity
- c. Quiet periods

3. Flying conditions

- a. General
- b. Condition report
 - (1) Visibility (in miles)
 - (2) Amount of cloud cover (in tenths)

(3) Top of cloud cover (in thousands of feet)

(4) Ceiling (in thousands of feet)

(5) Icing (level, intensity, type)

4. Miscellaneous phenomena

a. Sunrise and sunset

b. Moonrise and moonset

c. Other

D.1.2.6 Recent Material Development of Importance

D.1.2.6.1 Production and Maintenance

1. Torpedoes

2. Bombs

3. Bomb sights

4. Guns

5. Radar and so forth

6. Mines

D.1.2.7 Strategy and Tactics

1. Naval tactical doctrines

2. Actual or probable war plans

3. Methods used in carrying out different types of operation

a. Logistic methods

b. Use of fleet train

c. Reconnaissance methods

(1) Submarines

(2) Sector searches

d. Mining

e. Mine countermeasures

4. Coordination of air and surface assets

a. Antisubmarine search

b. Reconnaissance and patrol

D.1.2.8 Enemy Capabilities

1. Estimate of enemy knowledge of our objectives, intentions, and capabilities

a. Espionage and counterespionage

2. Morale

3. Naval

4. Air

5. Ground forces

6. NBC

D.1.3 Amphibious Operation Check List

D.1.3.1 Meteorology

1. Climate

a. General

b. Climatological averages, by months, showing rain; snow; thunderstorms; gales; visibility; fogs; rainfall; cloud cover; maximum, mean, and minimum temperatures; ice incidence; and humidity

c. Studies of typical weather and conditions for particular seasons of the year with emphasis on the frequency of occurrence of favorable and unfavorable operating conditions

2. Winds (including upper-air)
 - a. General
 - b. Expectancy of winds with direction and velocity
 - c. Quiet periods
3. Flying conditions
 - a. General
 - b. Ceiling
 - c. Visibility (fog, haze, dust, smoke)
 - d. Icing
4. Miscellaneous phenomena
 - a. Sunrise and sunset
 - b. Moonrise and moonset
 - c. Other

D.1.3.2 Hydrographic

D.1.3.2.1 Tides

1. General
2. Range of springs and neaps
3. Duration of rises, falls, and stands
4. Hourly tidal data at beach areas
5. Meteorological effects on tides

D.1.3.2.2 Sea and Surf

1. General
2. Expectancy of height of surf with winds from varying directions and of various velocities

3. Ice formations on sea
4. Audio conditions
5. Temperature of air and water

D.1.3.2.3 Offshore Currents

1. Strength and direction
2. Current tables and charts

D.1.3.2.4 Inshore Currents

1. Strength and direction at various distances from highwater mark
2. Current tables and charts

D.1.3.3 Terrain

D.1.3.3.1 Geography. The geography of the entire potential target area with special emphasis on appearance from the air of recognizable landmarks. Include:

1. Rivers
2. Lakes
3. Bays
4. Mountains
5. Town and city plans or layouts
6. Vegetation characteristics
7. Transportation networks (roads, railroads, power lines, canals, and so forth)
8. Off-lying islands
9. General description of the coast
 - a. Main characteristics
 - b. Approaches

- c. Offshore hazards
- d. Shoals
- e. Reefs
- f. Anchorages

D.1.3.3.2 Description of Terrain. Detailed description of terrain from coastline to 15 miles inland with emphasis on the following:

- 1. Rivers (give width, depth, current, character of banks, and so forth)
- 2. Woods, towns, buildings
- 3. Roads, paths
- 4. Hills, escarpments, plateaus
- 5. Suitability for tank warfare
- 6. Natural obstacles and defenses (such as ditches, hedges, swamps, and so forth)
- 7. Areas subject to flash flooding
- 8. Off-lying islands
- 9. Permafrost

D.1.3.4 Beaches

- 1. Length, width, location
- 2. Characteristics
 - a. Seawalls, jetties, breakwaters, groins, bulkheads
 - b. Tidal flats and salt marshes
 - c. Consistency
- 3. Embankments
- 4. Landmarks

5. Approaches (shoreward from 10-fathom line, in detail inside 5-fathom line)

- a. Swept channels
 - b. Location and depths of reefs, bars, rocks, and shoals
 - c. Anchorage areas
- 6. Currents
 - 7. Tidal range
 - 8. Trafficability
 - 9. Exits (include topography on flanks)
 - 10. Gradients (beach and underwater) and character of bottom
 - 11. Defensive installations in beach area
 - a. Pillboxes, blockhouses, casemates, turrets, caves
 - (1) Type of construction
 - b. Bunkers, trenches
 - c. Antitank traps, obstacles, ditches, road blocks
 - d. Land mines, booby traps, demolitions
 - e. Underwater obstacles and defenses
 - (1) Minefields off beach area, approach lanes, anchorage area
 - f. Searchlights
 - g. Radar
 - h. Airfields
 - i. Main defense organization (include supporting positions)

12. Passive defenses

- a. Camouflage methods
- b. Decoys
- c. Dummies

13. Chemicals

- a. Type
- b. Method of projection
- c. Use of beach area
 - (1) Burning oil and so forth

14. Weapons and artillery (include guided missiles)

- a. Nature of weapon
- b. Location
- c. Caliber
- d. Intensity of fire
- e. Areas under fire
- f. Classification of fire
- g. Types and supply of ammunition
- h. Flak patterns
- i. Range and limiting arc of fire of batteries

15. Local sources of fresh water (potable and nonpotable)

D.1.3.5 Characteristics and Recognition Data**D.1.3.5.1 Naval Vessels**

- 1. Recognition data

- a. Silhouettes

- b. Aerial views

2. Characteristics data

- a. Dimensions

- b. Armament

- c. Protection (include aircraft when assigned)

- d. Propulsion

- e. Performance

- (1) Speed

- (2) Cruising radius

- (3) Turning circles

- (4) Weather characteristics

- (5) Aircraft launching limitations

- f. Nature and capabilities of electronic equipment

D.1.3.5.2 Aircraft

- 1. Naval aircraft (including land-based)

- a. Recognition data

- (1) Silhouettes

- (2) Aerial views

- b. Characteristics data

- (1) Dimensions

- (2) Engine

- (3) Weight

- (4) Fuel (U.S. gal.)
- (5) Armament
- (6) Bomb load
- (7) Speeds
 - (a) Cruising
 - (b) Maximum
- (8) Rate of climb (ft./min.)
- (9) Ranges
 - (a) Normal
 - (b) Maximum (external tanks)
 - (c) Combat radius
- (10) Protection
- (11) Radius of turn
- (12) Speed of dive
- (13) Ceilings
 - (a) Service
 - (b) Maximum
- (14) Capabilities and nature of electronic equipment

2. Air forces other than naval

- a. Recognition data
 - (1) Silhouettes
 - (2) Aerial views
- b. Characteristics data
 - (1) Dimensions

- (2) Engine
- (3) Weight
- (4) Fuel (U.S. gal.)
- (5) Armament
- (6) Bomb load
- (7) Speeds
 - (a) Cruising
 - (b) Maximum
- (8) Rate of climb (ft./min.)
- (9) Ranges
 - (a) Normal
 - (b) Maximum (external tanks)
 - (c) Combat radius
- (10) Protection
- (11) Radius of turn
- (12) Speed of dive
- (13) Ceilings
 - (a) Service
 - (b) Maximum
- (14) Capabilities and nature of electronic equipment

D.1.3.5.3 Merchant Ships

- 1. Recognition data
 - a. Silhouettes
 - b. Aerial views

2. Characteristics data

- a. Dimensions
- b. Armament
- c. Protection
- d. Propulsion
- e. Performance
 - (1) Speed
 - (2) Cruising radius
 - (3) Turning circles
 - (4) Weathering characteristics
- f. Capabilities and nature of electronic equipment

D.1.3.6 Organization and Deployment**D.1.3.6.1 Navy**

1. Ships

- a. Organization
 - (1) Fleet, task force, and so forth
 - (2) Command relationships
 - (3) Characteristics of commanders
- b. Location and operational availability of vessels in or adjacent to area of operations
 - (1) Operational availability
 - (2) Numbers and types
 - (3) Locations
 - (a) Area

- (b) Specific location

- (4) Replacement from other areas

- (5) Time factors

2. Aircraft

a. Ship-based

- (1) Organization
 - (a) Group, wing, and so forth
 - (b) Command relationships
 - (c) Characteristics of commanders
- (2) Operational availability in or adjacent to area of operations
 - (a) Operational availability
 - (b) Numbers and types
 - (c) Locations (area, specific location)
 - (d) Replacement from other areas
 - (e) Time factors

b. Land-based

- (1) Organization
 - (a) Group, wing, and so forth
 - (b) Command relationships
 - (c) Characteristics of commanders
- (2) Operational availability in or adjacent to area of operations
 - (a) Operational availability
 - (b) Numbers and types

- (c) Locations (area, specific location)
- (d) Replacement from other areas
- (e) Time factors

D.1.3.6.2 Air Forces Other Than Naval

1. Organization
 - a. Group, wing, and so forth
 - b. Command relationships
 - c. Characteristics of commanders
2. Operational availability in or adjacent to area of operations
 - a. Operational availability
 - b. Numbers and types
 - c. Locations
 - (1) Area
 - (2) Specific location
 - d. Replacement from other areas
 - e. Time factors

D.1.3.6.3 Ground Order of Battle

1. Units in line or reserve
 - a. Composition
 - b. Disposition
 - c. Strength
 - d. Training
 - e. Tactics
 - f. Logistics

- g. Combat effectiveness
 - h. Miscellaneous data
2. Tanks or mechanized forces
 - a. Type
 - b. Number
 - c. Location and concentration or grouping areas
 - d. Vehicle parks and so forth

D.1.3.7 Enemy Ground Objectives. (Recommendations as to importance of all land targets are necessary.)

D.1.3.7.1 Airfields

1. Name, with alternates
2. Map references
3. General location (descriptive)
4. Geographical and grid coordinates
5. Dimensions
6. Classification
 - a. Civil or military
 - b. Suitability for types
 - (1) Jet
 - (2) Conventional
7. Number and location of hangars and shops
8. Dispersal facilities (include number, size, and location of hardstands and revetments)

9. Aircraft counts, by date, with photographic references if photos are available, with type and location

10. General information (types of aircraft generally based there and general uses to which the field is put)

D.1.3.7.2 Harbors, Anchorages, Strategic Waterways, and Shipping Facilities

1. Moorings and berthing
 - a. Types
 - b. Location
 - c. Size
2. Fuel facilities
 - a. Capacity
 - b. Location
3. Repair and construction facilities
 - a. Types
 - (1) Drydocks
 - (2) Shipyards
 - (3) Submarine pens
 - b. Capacity
 - c. Construction
 - d. Location
4. Potential navigational hazards and locations
 - a. Bridges
 - b. Tunnels

c. Nets and booms

d. Other hazards

D.1.3.7.3 Transportation and Communication

1. Types, appearance, most vulnerable feature, importance
 - a. Motor and railroad systems
 - (1) Marshaling yards
 - (2) Main junctions and terminals
 - (3) Tunnels and bridges
 - (4) Shops
 - b. Electric power lines and cables
 - (1) Generating plants
 - (2) Hydroelectric dams and reservoirs
 - (3) Relay stations

D.1.3.7.4 Industrial Targets of All Types Subject to Aerial Attack

1. Types and locations, appearance from air, most vulnerable feature, target priority
 - a. Aircraft factories and assembling plants
 - b. Armament factories
 - c. Ammunition factories
 - d. Vehicle factories and assembly plants
 - e. Railroad repair shops
 - f. Chemical plants

g. Warehouses (any stockpiling activities of strategic material such as light alloys, fuels, and so forth)

h. Public utilities

i. Pumping stations

j. Pipe lines

k. Petroleum refineries

l. Any other important industrial targets

D.1.3.7.5 Troop Concentrations

1. Number and location of barracks

2. Number and location of ammunition and supply dumps

D.1.3.7.6 Enemy Defenses

1. Active defense installations

a. Pillboxes, blockhouses, casemates, turrets, caves

(1) Type of construction

b. Bunkers, trenches

c. Antitank traps, obstacles, ditches, road blocks

d. Land mines, booby traps, demolitions

e. Underwater obstacles and defenses

f. Searchlights

g. Radar

(1) Types

(2) Capabilities and limitations

(3) Appearance from sea and air

h. Main defense organization (include supporting positions)

2. Passive defenses

a. Camouflage methods

b. Decoys

c. Dummies

3. Weapons and artillery (include guided missiles)

a. Nature of weapons

b. Location

c. Caliber

d. Intensity of fire

e. Areas under fire

f. Classification of fire

g. Types and supply of ammunition

h. Flak patterns

i. Range and limiting arc of fire of batteries

4. Appearance of defenses from air

a. Recognition features

D.1.3.8 Logistic Support Available

1. On land

a. Type

(1) Fuel depots

(2) Staging areas

(3) Storage facilities

(4) Repair facilities (naval vessels)

(5) Repair facilities (aircraft)

b. Capabilities and limitations

(1) Vulnerability

(2) Transportation

(3) Communication

(4) Protection

(5) Replenishment

(6) Location

(7) Power Sources

2. Afloat

a. Capabilities and limitations of replenishment

(1) Ammunition

(2) Spare parts

(3) Medical stores

(4) Provisions

(5) Fuel (include aviation)

b. Capabilities and limitations of repair at sea

(1) Major

(2) Minor

c. Time factors

d. Use of small craft for supply

(1) On rivers

(2) Along coast

D.1.3.9 Political

1. Strength and stability of the government in power, particularly insofar as popular support is concerned

2. Realistic appraisal of disaffected elements of the population which might be used to:

a. Hamper the government in power

b. Overthrow the government in power

D.1.3.10 Strategy and Tactics

1. Naval tactical doctrines

2. Actual or probable war plans

3. Methods used in carrying out different types of operations

a. Logistic methods

b. Use of fleet train

c. Reconnaissance methods

(1) Submarines

(2) Sector searches

4. Coordination of air, ground, and surface assets in countering amphibious landings

D.1.3.11 Enemy Capabilities

D.1.3.11.1 Estimate of Enemy's Capabilities in Order of Probability. The estimate should be based on the following considerations:

1. Composition and strength of enemy forces

2. Combat efficiency

3. Armament

4. Disposition
5. Supply
6. Time and space factors
7. Reinforcements
8. Assistance from neighboring units
9. Terrain
10. Hydrography
11. Meteorology
12. Other factors (include morale, civil population, enemy tactical doctrine)

D.1.3.12 Maps

1. Full coverage of the area within 15 miles of the coastline with scales 1:500,000; 1:250,000; 1:100,000; 1:50,000; also 1:25,000; and 1:12,500 of the coastline
2. Gridded map charts of the area with scales 1:50,000 and 1:25,000
3. Shoreline sketches of principal beaches
4. Map charts (scale about 1:10,000) showing gradients, obstacles, obstructions, and so forth along beaches (preferably a standard UDT chart based on reconnaissance and survey)
5. Target plot of objective area showing defenses

D.1.3.13 Photographs

1. Annotated mosaics for up to 15 miles inland
2. Large-scale vertical photographs
 - a. Beach areas

- b. Beach at various stages of tide
 - c. Casemates, pillboxes, other defenses
3. Sea-level panoramic photographs of coastline
 4. Pertinent ground photographs of coastline
 5. Oblique photographs of beach area

D.1.3.14 Data on Ports. (This section is mainly of interest for consolidating phase.)

D.1.3.14.1 General

1. Overall summary
 - a. Relative location
 - b. Strategic and economic importance
 - c. Principal characteristics and activities
2. Summary of harbor
 - a. Position and layout
 - b. Largest vessels accommodated
 - c. Anchorage
3. Summary of capacity
 - a. Port capacity
 - b. Berthage
4. Summary of port facilities
 - a. Wharves and wharf facilities
 - b. Storage and terminal facilities
 - c. Clearance facilities
 - d. Repair facilities

5. Summary of naval facilities

- a. Type
- b. Function
- c. Components

6. Moorings

- a. Fixed
 - (1) Location and layout
 - (2) Number and capacity
- b. Free-swinging
 - (1) Location and layout
 - (2) Number and capacity

7. Hydrography

- a. Tides
- b. Depths and heights
- c. Currents
- d. Sea and swell
- e. Ice
- f. Special considerations

8. Meteorology

9. Port defenses

- a. Summary
- b. Harbor defenses
 - (1) Entrance control post
 - (2) Detection units
 - (3) Nets and booms

(4) Mines

(5) Patrol operations

- c. Shore batteries
- d. Antiaircraft

D.1.3.14.2 Harbor

1. Summary

- a. Location
- b. Form and type
- c. Framework
- d. Vessels accommodated
- e. Adjoining shores

2. Protection

- a. General system
- b. Component parts
 - (1) Position
 - (2) Shape and alignment
 - (3) Dimensions
 - (4) Construction
- c. Auxiliary and inner protection

3. Harbor divisions

- a. Relative positions
- b. Use
- c. Dimensions
- d. Entrances

- e. Berths
- 4. Navigable fairways
 - a. Approach
 - (1) Navigability
 - (2) Limitations
 - b. Entrance
 - (1) Controlling dimensions
 - c. Harbor
 - (1) Length
 - (2) Width
 - (3) Depth
 - (4) Radius of turns
 - (5) Dimensions of turning basins
 - d. Silting and dredging
 - e. Obstructions
 - f. Aids to navigation
 - g. Pilotage
 - (1) Necessity
 - (2) Availability
 - (3) Competence
- 5. Anchorages
 - a. Location
 - b. Depths
 - c. Bottom sediments

- d. Protection
- e. Berths
 - (1) Number
 - (2) Location
 - (3) Types

D.1.3.14.3 Landing Facilities

- 1. Wharves, offshore pipeline berths, and supplemental landings
 - a. Principal wharves and berths
 - (1) Accommodations
 - (2) Total wharfage
 - (3) Total berthage
 - (a) General cargo
 - (b) Bulk cargo
 - (c) Noncargo
 - (4) Wharf distribution
 - (5) Wharf construction
 - (6) Wharf facilities
 - (a) Rail
 - (b) Roadways
 - (c) Transit shed space
 - (d) Cranage
 - (e) Utilities
 - b. Supplemental wharves and berths
 - (1) Location

- (2) Construction
- (3) Condition
- (4) Facilities
- 2. Handling facilities
 - a. Cranes
 - (1) Types
 - (2) Uses
 - (3) Capabilities
 - b. Stevedore gear
 - (1) Carriers
 - (2) Forklifts
 - (3) Trucks
 - (4) Portable conveyors
 - c. Specialized equipment
 - (1) Types
 - (2) Numbers
 - (3) Uses
- 3. Harbor craft
 - a. General use
 - b. Tugs and launches
 - c. Cargo craft
 - d. Bunkering and watering craft
 - e. Dredging equipment
 - f. Miscellaneous

- (1) Fireboats
- (2) Icebreakers
- (3) Ferries
- (4) Piledrivers
- (5) Other

D.1.3.14.4 Storage Facilities

- 1. General
- 2. Warehouses
 - a. Location
 - b. Capacity
 - c. Adequacy
- 3. Cold-storage
 - a. Location
 - b. Use
 - c. Machinery and equipment
 - d. Ice capacity
 - e. Storage capacity
- 4. Petroleum
 - a. Location
 - b. Capacity
 - c. Product
- 5. Bulk
 - a. Grain
 - b. Coal

c. Miscellaneous

6. Open

a. Location

b. Size

c. Facilities

D.1.3.14.5 Clearance Facilities

1. Rail

a. Lines clearing port

(1) Number

(2) Gauge

(3) Connecting points

(4) Distances

b. Lines in port

(1) Number

(2) Length

(3) Gauge

(4) Yards

(5) Stations

(6) Freight terminals

(7) Shops

2. Road

a. Roads clearing port

(1) Construction

(2) Width

(3) Connecting points

(4) Condition

b. Roads in port

(1) Adequacy

3. Waterway

a. Type

b. Connecting points

c. Distances

d. Dimensions

e. Craft in service

4. Pipeline

a. Size

b. Connecting points

c. Distances

d. Use

e. Capacity

D.1.3.14.6 Port Capacity

1. Port operations

a. Cargo handling

(1) Tonnage

(2) Maximum capacity

(3) Import/export ratio

(4) Bulk/general ratio

(5) Alongside/lightered ratio

- (6) Rates
- (7) Average turn-around
- (8) Transfer methods
- (9) Limiting factors

b. Labor supply

- (1) Size
- (2) Adequacy
- (3) Efficiency
- (4) Reserve availability
- (5) Political factors

2. Military port capacity

- a. Special conditions not covered by basic assumptions

D.1.3.14.7 Supplies

- 1. Petroleum
 - a. Availability
 - b. Supply methods
 - c. Supply rates
- 2. Coal
 - a. Availability
 - b. Supply methods
 - c. Supply rates
- 3. Water
 - a. Type
 - b. Adequacy

- c. Quality
- d. Supply methods
- e. Supply rates

4. Electricity

- a. Plant location
- b. Plant type
- c. Plant capacity
- d. Current characteristics
- e. Availability to vessels

5. Provisions and chandlers

- a. Summary of availability

D.1.3.14.8 Repair Facilities

- 1. Summary
- 2. Principal repair yards
 - a. Name
 - b. Location
 - c. Layout
 - d. Capabilities
 - e. Drydocking installations
 - f. Fitting-out and repair berths
 - g. Building slips
 - h. Shops
 - (1) Structural
 - (2) Engineering

- (3) Electrical and instrument
- (4) Miscellaneous
- i. Heavy-lift equipment
- j. Utilities
 - (1) Electricity
 - (2) Steam
 - (3) Compressed air
 - (4) Industrial gases
 - (5) Water
- k. Personnel
 - (1) Number
 - (2) Categories
 - (3) Quality
- 3. Minor repair yards
 - a. Installations
 - b. Normal operations
 - c. Capabilities
- 4. Auxiliary repair facilities
 - a. Machine shops
 - b. Foundries
 - c. Salvage firms
 - d. Other
- 5. Drydocking installations
 - a. Graving docks

- b. Floating drydocks
- c. Marine railways

D.1.3.14.9 Port Administration

- 1. Quarantine
- 2. Customs
- 3. Security organization
- 4. Free-port zones

D.1.3.14.10 Trade

- 1. Shipping
 - a. Volume
 - b. Types
 - c. Trends
- 2. Commerce
 - a. Volume
 - b. Types
 - c. Trends

D.1.3.14.11 Port Development. (Do not repeat data previously covered.)

- 1. Work in progress
- 2. Work planned

D.1.3.14.12 Naval Facilities

- 1. General
 - a. Location
 - b. Type
 - c. Function

- d. Components
- 2. Base components (do no repeat data)
 - a. Harbor
 - b. Landing facilities
 - c. Shipbuilding and repair
 - d. Ordnance
 - (1) Manufacturing facilities
 - (2) Assembly, maintenance, overhaul
 - (3) Storage
 - e. Supply
 - (1) Material storage and supply
 - (2) Fuel storage and supply
 - f. Communication
 - g. Training
 - h. Medical facilities
 - i. Administration
 - j. Miscellaneous
- 3. Base utilities (do not repeat data)
 - a. Housing
 - b. Transportation
 - (1) Clearance
 - (2) Within base
 - c. Communication
 - d. Power and lighting
 - e. Water
 - f. Fire protection
 - g. Recreation
 - h. Disciplinary facilities
- 4. Port defense
 - a. Harbor defense
 - (1) Entrance control post
 - (2) Detection units
 - (3) Nets and booms
 - (4) Mines
 - (5) Patrol operations
 - b. Shore batteries
 - c. Antiaircraft
 - d. Base defense
 - (1) Construction and concealment for protection
 - (a) Dispersal
 - (b) Sandbagging
 - (c) Bombproof construction
 - (d) Subterranean construction
 - (e) Camouflage
 - (f) Natural shelter
 - (g) Decoys
 - (h) Smokescreens
 - (2) Chemical warfare defense
 - (3) Internal security

D.1.3.15 Medical Cognizance

1. Diseases endemic and epidemic in the area
2. General health of civilian and military population
3. Degree of efficiency in treatment of the sick and injured
4. Source of medical supplies and amounts usually kept on hand

5. Strategic areas for battle dressing stations and field hospitals

D.2 FORMATS FOR INTELLIGENCE DOCUMENTS

Figure D-1 illustrates the format for the intelligence estimate. Figure D-2 illustrates the format for the intelligence annex to an operation plan or operation order.

(SECURITY CLASSIFICATION)

Originating Section, Issuing Headquarters*
 Place of Issue
 Date-time Group, Month, Year

INTELLIGENCE ESTIMATE (NUMBER**)

References: a. Maps and charts
 b. Other relevant documents

1. MISSION. State the assigned (or deduced) task and its purpose.

2. ENEMY SITUATION. State conditions which exist and indicate the effect of these conditions on enemy capabilities and the assigned mission. Describe the area of operations, the enemy military situation, and the effect of these two factors on enemy capabilities.

a. Characteristics of the Area of Operations. This paragraph discusses the effect of the physical characteristics of the area of operations on military activities of both combatants. If an analysis of the area has been prepared separately, this paragraph in the intelligence estimate may simply reference the area study, then discuss the effects of the existing situation on military operations in the area.

(1) Military Geography

(a) Topography

1. Existing situation. Description of relief and drainage, vegetation, surface materials, cultural features, and other characteristics, in terms of their effect on key terrain, observation, fields of fire, obstacles, cover and concealment, avenues of approach, lines of communication, landing areas and zones.
2. Effect on enemy capabilities. Discussion of the effect of topography on broad enemy capabilities such as attack and defense, describing generally how the topography affects each type activity. The effect on employment of nuclear and CB weapons, amphibious, airborne or airlanded forces, surveillance devices and systems, communications equipment and systems, electronic warfare, tactical cover and deception, logistic support, and other appropriate considerations should be included.
3. Effect on friendly courses of action. Discussion of the effects of topography on friendly forces military operations (attack, defense, etc.) in the same fashion as for enemy capabilities in the preceding subparagraph.

(b) Hydrography

1. Existing situation. Description of currents; ice conditions; sonar conditions; submarine listening performance; the nature of the coastline; adjacent islands; location, extent, and capacity of landing beaches, approaches thereto and exits therefrom; nature of the offshore approaches, including type of bottom and gradients; natural obstacles; surf, tide, and current conditions.

*When distributed outside the originating headquarters, the first line of the heading is the official designation of the issuing command, and the ending is modified accordingly.

**Normally numbered sequentially within a calendar year.

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Figure D-1. Format for the Intelligence Estimate (Sheet 1 of 8)

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2. Effect on enemy capabilities. Discussion of the effects of the existing situation on broad enemy capabilities.
 3. Effect on friendly courses of action. Discussion of the effects of the existing situation on broad courses of action for friendly forces.
- (c) Climate and Weather
1. Existing situation. Descriptive summary of temperature, cloud cover, visibility, precipitation, light data, and other climate and weather conditions and their general effect on roads, rivers, soil trafficability, and observation.
 2. Effect on enemy capabilities. Discussion of the effects of the existing climate and weather situation on broad courses of action for friendly forces.
 3. Effect on friendly courses of action. Discussion of the effects of the existing climate and weather situation on broad courses of action for friendly forces.
- (2) Transportation
1. Existing situation. Description of roads, railways, inland waterways, airfields and other physical characteristics of the transportation system; capabilities of the transportation system in terms of rolling stock, barge capacities, terminal facilities, and other pertinent data.
 2. Effect on enemy capabilities. Discussion of the effects of the existing transportation system and capabilities on broad enemy capabilities.
 3. Effect on friendly courses of action. Discussion of the effects of the existing transportation system and capabilities on broad courses of action for friendly forces.
- (3) Telecommunications
1. Existing situation. Description of telecommunications facilities and capabilities in the area, both civil and military.
 2. Effect on enemy capabilities. Discussion of the effects of the existing telecommunications situation on broad enemy capabilities.
 3. Effect on friendly courses of action. Discussion of the effects of the existing telecommunications situation on broad courses of action for friendly forces.
- (4) Politics
1. Existing situation. Description of the organization and operation of civil government in the area of operation.
 2. Effect on enemy capabilities. Discussion of the effects of the political situation on broad enemy capabilities.

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Figure D-1. Format for the Intelligence Estimate (Sheet 2 of 8)

(SECURITY CLASSIFICATION)

3. Effect on friendly courses of action. Discussion of the effects of the political situation on broad courses of action for friendly forces.

(5) Economics

1. Existing situation. Description of industry, public works and utilities, finance, banking, currency, commerce, agriculture, trades and professions, labor force, and other related factors.
2. Effect on enemy capabilities. Discussion of the effects on the economic situation on broad enemy capabilities.
3. Effect on friendly courses of action. Discussion of the effects on the economic situation on broad courses of action for friendly forces.

(6) Sociology

1. Existing situation. Description of language, religion, social institutions and attitudes, minority groups, population distribution, health and sanitation, and other related factors.
2. Effect on enemy capabilities. Discussion of the effects of the sociological situation on broad enemy capabilities.
3. Effect on friendly courses of action. Discussion of the effects of the sociological situation on broad courses of action for friendly forces.

(7) Science and Technology

1. Existing situation. Description of the level of science and technology in the area of operations.
2. Effect on enemy capabilities. Discussion of the effects of science and technology on broad enemy capabilities.
3. Effect on friendly course of action. Discussion of the effects of science and technology on broad courses of action for friendly forces.

b. Enemy Military Situation (ground, naval, air, service)

(1) **Strength.** Enumeration of the number of enemy units committed and number of enemy reinforcements available for use in the area of operations. Ground strength, air power, naval forces, nuclear and CB weapons, electronic warfare, unconventional warfare, surveillance potential, and all other strengths which might be significant to consider.

(2) **Composition.** Structure of enemy forces (order of battle) with description of unusual organizational features, identity, armament, and weapons systems.

(3) **Location and Disposition.** Description of the geographical location of enemy forces in the area, including fire support elements, command and control facilities, air, naval, missile forces and bases where appropriate.

(4) **Availability of Reinforcements.** Description of enemy reinforcement capabilities in terms of ground, air, naval, missile, nuclear, and CB forces and weapons; terrain, weather, road and rail nets, transportation, replacements, labor forces, prisoner of war policy, and possible aid from sympathetic or participating neighbors.

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Figure D-1. Format for the Intelligence Estimate (Sheet 3 of 8)

(SECURITY CLASSIFICATION)

- (5) **Movements and Activities.** Description of the latest known enemy activities in the area.
 - (6) **Logistics.** Description of levels of supply, resupply ability, capacity of beaches, ports, roads, railways, airfields, and other facilities to support supply and resupply; hospitalization and evacuation, military construction, labor resources, and maintenance of combat equipment.
 - (7) **Operational Capability to Launch Missiles.** Description of the total missile capability that can be brought to bear on forces operating in the area, to include characteristics of missile systems, location and capacity of launch or delivery units, initial and sustained launch rates, size and location of stockpiles, and other pertinent factors.
 - (8) **Serviceability and Operational Rates of Aircraft.** Description of the total aircraft inventory by type, performance characteristics of operational aircraft, initial and sustained sortie rates of aircraft by type, and other pertinent factors.
 - (9) **Operational Capabilities of Combatant Vessels.** Description of the number, type, and operational characteristics of ships, boats, and craft in the naval inventory, base location, and capacity for support.
 - (10) **Technical Characteristics of Equipment.** Description of the technical characteristics of major items of equipment in the enemy inventory where not already considered. (Ex: torpedoes, mines, etc.)
 - (11) **Electronics Intelligence.** Description of the enemy intelligence-gathering capability using electronics devices.
 - (12) **Nuclear and CB Weapons.** Description of the types and characteristics of nuclear and CB weapons in the enemy inventory, stockpile data, delivery capabilities, nuclear and CB employment policies and techniques, and other pertinent factors.
 - (13) **Significant Strengths and Weaknesses.** Discussion of the significant enemy strengths and weaknesses developed from the facts presented in the preceding subparagraphs. (1) - (12)
- c. **Enemy Unconventional and Psychological Warfare Situation**
- (1) **Guerrilla.** Description of the enemy capability for, policy with regard to, and current status in the area of guerrilla or insurgent operations.
 - (2) **Psychological.** Description of enemy doctrine, techniques and methods, organization for and conduct of psychological operations in the area of operations.
 - (3) **Subversion.** Description of enemy doctrine, techniques and methods, organization for and conduct of subversion in the area of operations.
 - (4) **Sabotage.** Description of enemy organization and potential for and conduct of sabotage in the area of operations.

3. ENEMY CAPABILITIES

This paragraph contains a separate listing of each enemy capability which can affect the accomplishment of the assigned mission. Each enemy capability should contain:

WHAT the enemy can do.

WHERE he can do it.

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Figure D-1. Format for the Intelligence Estimate (Sheet 4 of 8)

(SECURITY CLASSIFICATION)

WHEN he can start it and get it done.

WHAT STRENGTH he can devote to the task.

In developing enemy capabilities, the N-2 must be able to provide the commander with the total capability the enemy can employ utilizing his forces in a joint effort. Before joint enemy capabilities can be developed, however, it will be necessary to categorize the enemy's ground, naval and air capabilities. It is customary also to enumerate separately the enemy's nuclear, CB, and unconventional warfare capabilities. Examples of enemy capabilities within the foregoing categories are:

a. Ground Capabilities

(1) The enemy can attack at any time along our front with an estimated six infantry divisions and two tank divisions supported by 24 battalions of artillery.

(2) The enemy can defend now in his present position with seven infantry divisions supported by two tank divisions and 16 battalions of medium and light artillery.

b. Air Capabilities

(1) Commencing now, and based on an estimated strength of 300 fighter and 100 medium bomber aircraft, the enemy can attack in the area of operations with 240 fighter sorties per day for the first two days, followed by a sustained rate of 150 sorties per day; 60 bomber sorties per day for one day followed by a sustained rate of 48 sorties per day.

(2) Utilizing airfields in the vicinity of _____ the enemy has sufficient transport sorties to lift one regiment in a single lift to airfields in the vicinity of _____, _____, and _____ within four hours flying time.

c. Naval Capabilities

(1) Commencing now, the enemy can conduct sustained sea and air operations in the entire area with six DD, four DE, one CVA, seven SSN, a mine force of 20 craft, and 70 gunboats and smaller craft now on station in the area.

(2) The enemy can reinforce his attack with the following units in the time and place indicated.

UNIT	PLACE	TIME
6 SSNs	GI-UK Gap	72 hours after starting movement
2 CGs	Vic Iceland	7 days after starting movement

d. Nuclear Capability

The enemy can employ at any time and in any part of the area of operations, an estimated 40-60 nuclear weapons of yields from 2-50 KT delivered by tube and rocket artillery, guided missile, and aircraft.

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Figure D-1. Format for the Intelligence Estimate (Sheet 5 of 8)

(SECURITY CLASSIFICATION)

e. CB Capability

The enemy can employ the CB agents in the area of operations at any time delivered by air, tube and rocket artillery, and guided missile.

f. UW Capability

The enemy can conduct UW operations in the area within ten days of commencement of the operation using dissident elements in the ethnic group and the political adversaries of the current government.

g. Joint Capabilities

The N-2 may be called upon to present joint enemy capabilities. An example of a jointly expressed enemy capability is as follows:

The enemy can continue to defend in his present position with six infantry divisions, supported by 16 artillery battalions, and reinforced by three mechanized divisions within eight hours after starting movement; his defense can also be supported by 150 fighter sorties daily for a sustained period, and by continuous naval surface and air operations employing six DD, four DE, seven SSN, and one CVA.

4. ANALYSIS OF ENEMY CAPABILITIES

In this paragraph each enemy capability is examined in a discussion of the factors which favor or militate against its adoption by the enemy. When applicable, the analysis of each capability should also include a discussion of enemy vulnerabilities attendant to that capability, i.e., conditions or circumstances of the enemy situation which render the enemy especially liable to damage, deception, or defeat. Finally the analysis should include a discussion of any indications which point to possible adoption of the capability. For example:

a. Attack now with all available forces in the Indian Ocean

(1) The following factors favor adoption of this capability:

(a) ...

(b) ...

(2) The following factors militate against adoption of this capability:

(a) ...

(b) ...

(3) Adoption of this capability will expose the enemy's logistic lines to counterattack.

(4) Except for minor patrol activity in the _____ area there are no indications of adoption of this capability.

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Figure D-1. Format for the Intelligence Estimate (Sheet 6 of 8)

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b. Delay from present positions along the _____ RIVER line . . .

(1) The following factors favor adoption of this capability:

(a) There are several excellent natural barriers between the _____ RIVER and the _____ MOUNTAINS.

(b) The effectiveness of the water barriers will improve and trafficability on the upland slopes of the terrain barriers will deteriorate with advent of the monsoon.

(2) The following factors militate against adoption of this capability:

(a) . . .

(b) . . .

(3) In the adoption of this capability the enemy's lines of communication will be restricted by a limited road and rail net which can easily be interdicted.

(4) The following facts indicate adoption of this capability:

(a) Aerial photography indicates some preparation of barriers in successive positions.

(b) Considerable troop movement and preposition of floating bridge equipment along the water barriers have been detected.

5. CONCLUSIONS

This paragraph contains a summary of capabilities most probable of adoption listed in the order of relative probability of adoption, if sufficient information is available to permit such an estimate. If appropriate, it should also include a concise statement of the effects of each enemy capability on the accomplishment of the assigned mission. Exploitable vulnerabilities should be listed, where applicable.

a. Enemy Capabilities in Relative Probability of Adoption

(1) Attack from present locations with

(2) Withdraw from present positions to

(3) Reinforce the units operating in

(SECURITY CLASSIFICATION)

Figure D-1. Format for the Intelligence Estimate (Sheet 7 of 8)

(SECURITY CLASSIFICATION)

b. Vulnerabilities

- (1) Enemy left (west) flank is open to envelopment by amphibious assault
- (2) The enemy's air search radar coverage is poor in the forces assigned for convoy protection.

(Signed) _____

N-2

(The staff division chief signs the staff estimates produced by his division. If the estimate is to be distributed outside the headquarters, the heading and signature block must be changed to reflect that fact as already indicated.)

ANNEXES: (By letter and title) Annexes should be included where the information is of graphical nature or of such detail and volume that inclusion makes the body of the estimate too cumbersome. As required, they should be lettered sequentially as they occur throughout the estimate.

DISTRIBUTION: (According to procedures and policies of the issuing headquarters)

NOTE: Although this descriptive format has been developed in some detail, it should be apparent that all subparagraphs indicated here will not be necessary in every estimate. However, in the interest of clarity and to demonstrate the thoroughness of the estimate all items should be listed with a "not applicable" following the paragraph heading, if that particular article is not necessary for that particular estimate.

(SECURITY CLASSIFICATION)

Figure D-1. Format for the Intelligence Estimate (Sheet 8 of 8)

(SECURITY CLASSIFICATION)

Copy No _____
 Issuing Headquarters or Unit _____
 Local or Place of Issue _____
 Date/Time of Issue _____
 MSG Reference No _____

INTELLIGENCE ANNEX

ANNEX ___ (INTELLIGENCE) TO OPERATION ORDER/PLAN ___ (CODE NAME)

References: a. Maps, charts and relevant documents (label each reference)

1. **SUMMARY OF ENEMY SITUATION.** Information about enemy forces essential in implementing the operation order. (Whether this annex and its related appendixes and enclosures contain complete information or reference to information available elsewhere is a matter for determination by the issuing headquarters or unit.)
2. **COMMAND MISSION:** Required when annex is distributed separately.
3. **INTELLIGENCE INFORMATION**
 - a. **Essential Elements of Information (EEI).** Each element of information will appear under a separate lettered subparagraph in the intelligence annex. If publication of the annex is deferred or omitted entirely, then the EEI's appear in the coordinating instruction subparagraphs of the operation. EEIs are not published in both places except when the commander desires that certain EEIs be emphasized. Insofar as possible, they will be listed in order of priority.
 - b. **Intelligence Collection Requirements (ICR).** To be used as required. Separate lettered subparagraphs will be used for other nonspecific intelligence requirements.
4. **INTELLIGENCE ACQUISITION TASKS**
 - a. **Orders to Subordinate and Attached Units** are separate numbered subparagraphs covering detailed instructions for each unit from which a report is required by the headquarters. These subparagraphs are listed in the same order as units are listed in the operation order.
 - b. **Requests to Higher, Adjacent, and Cooperating Units** are separate numbered subparagraphs pertaining to each unit, not organic or attached, from which information is requested.
5. **SUPPLEMENTARY INTELLIGENCE ACTIVITIES**
 - a. **Reconnaissance and Observation.** List the special agencies that may be available for execution of reconnaissance and observation missions.
 - (1) **General.** Instructions and guidance for carrying out duties and responsibilities normally not covered by regulations or standing operating procedures.
 - (2) **Ground.** List clandestine agents, communications reconnaissance.
 - (3) **Naval.** Amphibious reconnaissance units, underwater demolition teams.
 - (4) **Air.** Air reconnaissance, including imagery and electronic assets available.

(SECURITY CLASSIFICATION)

Figure D-2. Format for the Intelligence Annex to an Operation Plan or Operation Order (Sheet 1 of 2)

(SECURITY CLASSIFICATION)

- b. Prisoners of War, Deserters, Repatriates, Inhabitants, and Other Persons. Plans include such aspects of segregation and handling as will ensure maximum exploitation of this source of intelligence.
- c. Captured Documents. Instructions for the handling and processing of captured documents from time of capture to receipt by specified intelligence personnel.
- d. Captured Material. Designation of items or categories of enemy material required for examination and specific instructions for their processing and disposition.
- e. Counterintelligence. This paragraph will cover special operational instructions having counterintelligence aspects. Certain instructions and procedures pertaining to the operation of special personnel in the operation may require limited dissemination on a need to know basis; therefore, a special counterintelligence measures appendix may be prepared for a limited and specified number of addressees.
- f. Target List. This paragraph contains instructions covering the system to be used in designating targets, target location, and target classifications. It also contains information on promulgation of the target list, control and maintenance of the target list, and issuance of target bulletins. Whether this paragraph and its related appendixes contain all the target information required or merely refer to material available elsewhere is a determination made by the issuing agency.

6. REPORTS AND DISTRIBUTION

This paragraph stipulates the conditions (date, number of copies issued, and so forth) regulating the submission of intelligence reports to the originating command for the duration of the operation. Any or all of the following items may be covered in this paragraph:

- a. Period to be covered by routine reports and distribution.
- b. Routine and special reports to formats.
- c. Periodic and special reports formats.
- d. Distribution of special intelligence studies, such as defense overprints and order of battle overlays.
- e. Special intelligence liaison when indicated.

7. MISCELLANEOUS INSTRUCTIONS

List here, under separate subparagraphs, items not covered above. Examples of items contained in this paragraph are: weather service plan, military security, use of specialized intelligence personnel, maps, charts, and imagery.

Signature _____

Grade _____

Title _____

Addenda:

Distribution:

Authentication:

(SECURITY CLASSIFICATION)

Figure D-2. Format for the Intelligence Annex to an Operation Plan or Operation Order (Sheet 2 of 2)

APPENDIX E

Evaluation of Environmental Factors in Operational Planning

E.1 ENVIRONMENTAL EVALUATION

For any operation, conditions in the physical environment may be classified as favorable, acceptable, or unacceptable. The effectiveness of many operations depends in large part upon the physical environment at the time. When planning an operation, consider carefully all weather and oceanographic conditions.

This appendix does not attempt to cover environmental factors fully; rather, it indicates desirable procedures to follow in evaluating environmental factors in the planning stage of an operation. Studies should commence as early as practicable because certain time-consuming evaluations may be required. If the necessary evaluations must become a formal part of a plan, an environmental, meteorological, or oceanographic annex or appendix can be incorporated in the operation plan or operation order.

E.2 STEPS IN EVALUATING ENVIRONMENTAL FACTORS

During the planning stage of an operation, three steps are necessary in evaluating environmental factors:

1. Make a thorough study of the climatic conditions over the area of operations.
2. Make determinations, based on this study, of the effects of the environment on:
 - (a) The operation as a whole
 - (b) The ships, aircraft, weapons, personnel, and equipment to be used in the operation.

3. Base decisions regarding desirable or necessary courses of action on these determinations.

E.2.1 Study of Climatic Conditions. For environmental support and relevant information, numerous climatic studies are available from the nearest Naval Oceanographic Command center or facility. Centers are located at Norfolk, Va; Pearl Harbor, HI; Suitland, MD; Guam; and Rota, Spain. Facilities are located at Bay St. Louis, MS; Bermuda; Cubic Point, RP; Jacksonville, FL; Keflavik, IC; San Diego, CA; and Yokosuka, JA. Navair 50-1C-534, Guide to Standard Weather Summaries, provides a listing of completed summaries that are available. Environmental guides for specific oceanic areas, produced by the Naval Oceanographic Office, are available from the Defense Mapping Agency (DMA), and are listed in the DOD DMA Catalogue of Maps, Charts, and Related Products.

E.2.2 Determinations Based on the Study of Climatic Conditions. Using the results of climatic studies of the area of operations, make the following determinations:

1. Effects of meteorological and oceanographic conditions:
 - (a) On operations as a whole
 - (b) On individual units of the force
 - (c) On the weapons and equipment to be employed
 - (d) On personnel and material.

2. Relative advantage to own and enemy forces from expected conditions.
3. Conditions which will be favorable, acceptable, or unacceptable for operations:
 - (a) Because of effect on own forces
 - (b) Because of undue advantage to enemy forces.
4. Percentage of time that favorable, acceptable, or unacceptable conditions may be expected in the area of operations and the approximate duration of these conditions.
5. Flexibility of timing which may be required in order to initiate operations under favorable or acceptable conditions.
6. Effects of the atmospheric structure on radar propagation and NBC warfare.
7. Effects of surface and subsurface oceanographic conditions on weapons and ships.
8. Will changes in current operating procedures be required?
9. Will the environmental forecasts provided be sufficient?
10. Will additional meteorological and oceanographic personnel and equipment be required?

E.2.3 Decisions Regarding Courses of Action. Decisions regarding necessary or desirable courses of action should logically follow from the determinations based on the results of the climatic studies. In general:

1. The greatest number of favorable or acceptable environmental conditions occur in tropical areas and in subtropical portions of the temperate zones. In polar areas, increasing restrictions are encountered and selection

of favorable or acceptable weather conditions may become most difficult, especially if operations must be conducted without regard to the time of year.

2. Available environmental observations in many areas of the world will be insufficient and must be supplemented by one or more of the following:

- (a) Satellite observations
- (b) Weather reconnaissance aircraft
- (c) Observations from specially stationed submarines
- (d) Observations from specially placed automatic weather stations and drifting buoys
- (e) Observations from friendly agents in enemy territory.

3. Routine environmental services provided by a Naval Oceanography Command center or facility will normally be sufficient for the operation. Additional information can be found in NAVOCEANCOMINST 3140.1G.

4. Evaluation of environmental factors is a continuing procedure. Any significant change in the units, weapons, or equipment to be employed may require reevaluation of the environmental factors.

5. The passage of time offers possibilities for increasing knowledge of environmental factors in the area of operations and provides opportunities for meteorologists to gain experience in forecasting for the area. Full advantage should be taken of all the time available between completion of the plan and its implementation for a continuing evaluation of environmental factors and their influence on operations.

APPENDIX F

Sample Solution of an Operation Problem

F.1 THE GENERAL SITUATION

GREEN and WHITE have been at war for 18 months. GREEN, an Asiatic-European coalition, has occupied the entire mainland of Asia and has overrun Europe, excluding France, Portugal, Spain, and Great Britain. Africa, the Middle East, and Pacific Islands of strategic importance are still held or controlled by WHITE. At present both sides are exerting major efforts in France and at the Turkish-European border.

During the first month of war, WHITE's Aleutian Island and Alaskan bases were destroyed by nuclear attack. Kodiak Island, with the only remaining major WHITE naval base in the Alaskan area, was left undamaged. Efforts in other areas have prevented WHITE from rebuilding the destroyed advanced bases. GREEN has occupied Attu Island without opposition but has not exploited the acquisition. Until now WHITE has considered GREEN's occupation of Attu to be of minor significance.

Recent intelligence indicates that GREEN plans to establish advanced air and naval bases on Attu Island. It has been reliably reported that GREEN is assembling advanced base construction units in the Petropavlovsk area for this purpose. It is believed that these units will be transported to Attu by a strongly protected convoy between 15 June 198- and 15 July 198-.

WHITE is preparing to recapture Attu by amphibious assault. This operation is scheduled to begin on 1 September 198-. Its successful accomplishment requires that GREEN be prevented from establishing effective air and naval bases on Attu.

In view of the reliable intelligence concerning GREEN's plans to establish bases on Attu Island, Commander-in-Chief WHITE Alaskan Area (CinCAL) has requested Commander-in-Chief WHITE Pacific Fleet (CincPacFlt) to assign one carrier striking group to augment the naval forces under his command. The group has been ordered to report to CinCAL not later than 25 May 198-.

Command relationships applicable to this problem are outlined in Figure F-1.

The naval component commander under CinCAL, ADM WA (Commander WHITE North Pacific Naval Forces, CTF 19), has promulgated an operation order dated 25 May 198-. Pertinent extracts from his directive are:

From Task Organization

- | | | |
|----------|---|---------|
| "a. 19.1 | North Pacific Carrier Striking Group | RADM WB |
| | CarGru 5 | 1 CV |
| | CruDesGru 3
(less DDG 6, DDG 9) | 3 CG |
| | | 8 DD |
| | | 6 DDG |
| | | 4 DD |
| b. 19.2 | North Pacific Submarine Group | |
| c. 19.3 | North Pacific Air Patrol Group | |
| d. 19.4 | North Pacific Mobile Logistics Support Group" | |

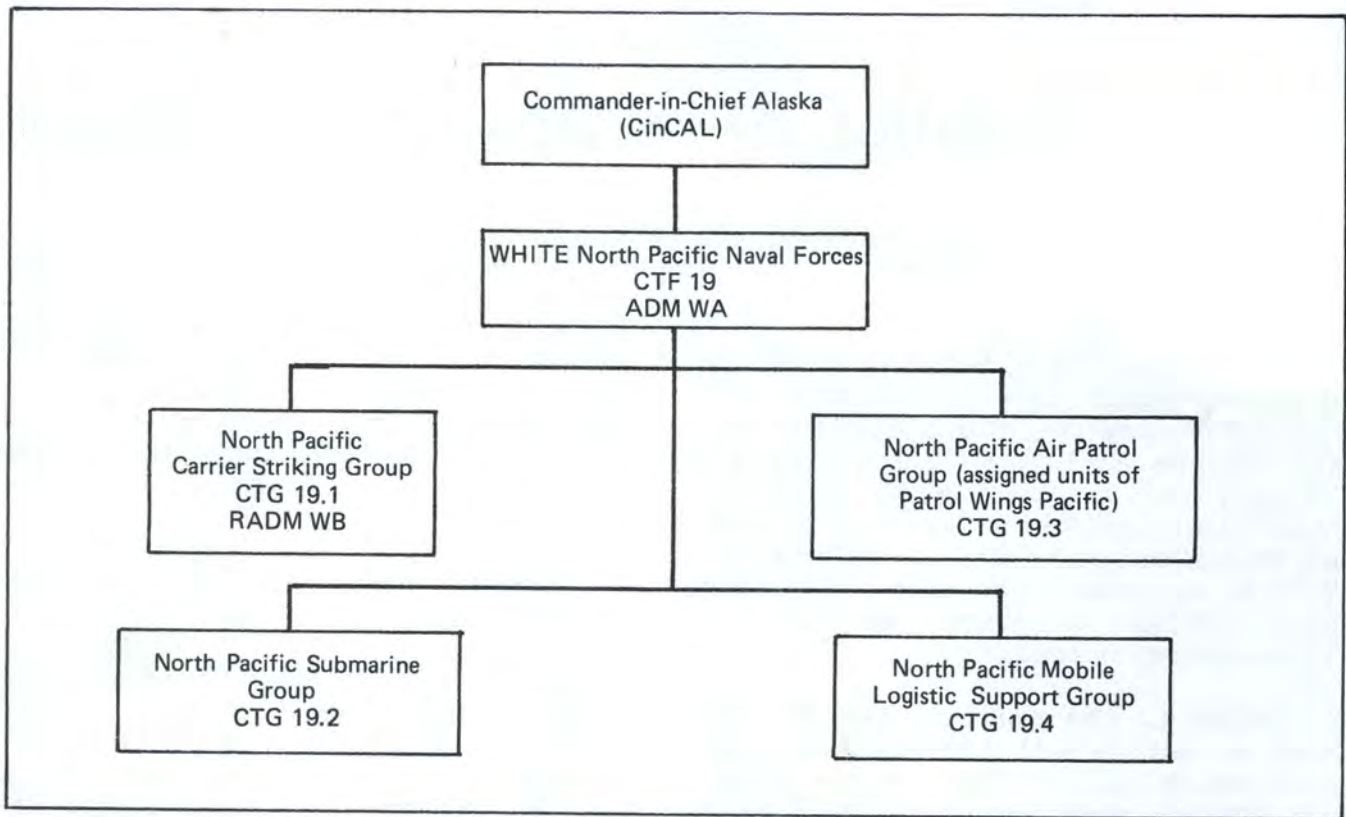


Figure F-1. Command Relationships Applicable to Problem

From Paragraph 2 (The MISSION Paragraph)

"Avert GREEN expansion in the NORTH PACIFIC AREA in order to assist in the protection of ALASKA and the continental UNITED STATES from sea or air attack."

From Paragraph 3 (The EXECUTION Paragraph)

"This force will deny the ALEUTIAN ISLANDS to GREEN by naval action.

a. North Pacific Carrier Striking Group prevent the establishment of GREEN bases on

ATTU ISLAND during the period 10 June 198- through 1 Sep 198-.

b. North Pacific Submarine Group conduct reconnaissance and surveillance missions. Be prepared to assume an antishipping role as directed.

c. Air Patrol Group conduct aerial reconnaissance and antisubmarine warfare as directed.

d. Mobile Logistics Support Group furnish logistic support to the Carrier Striking Group."

On 24 May 198-, after arrival at Kodiak from Pearl Harbor, RADM WB (Commander

WHITE North Pacific Carrier Striking Group, CTG 19.1) receives CTF 19's directive. After studying the directive, RADM WB directs his staff to commence planning for the forthcoming operation, using the intelligence and area information furnished in his superior's directive. The following ships are assigned to RADM WB for this operation:

CarGru 5

MIDWAY (F) (CV 41)

CruDesGru 3

GRIDLEY (CG 21)
HALSEY (CG 23)
JOUETT (CG 29)

DesRon 7

BRADLEY (FF 1041)
HOEL (DDG 13)
WADDELL (DDG 14)
DECATUR (DDG 31)

DesRon 31

ROARK (FF 1053)
MARVIN SHIELDS (FF 1066)
BAGLEY (FF 1069)
SIDES (FFG 14)

DesRon 37

KINKAID (DD 965)
HEWITT (DD 966)
O'BRIEN (DD 975)
FIFE (DD 991)
LEFTWICH (DD 984)

F.2 THE COMMANDER'S ESTIMATE OF THE SITUATION

The commander's estimate of the situation is developed in accordance with the procedures given in Chapter 2. Each step is numbered and titled the same as corresponding steps in Chapter 2.

F.3 STEP 1 — MISSION AND ITS ANALYSIS

F.3.1 Indicate Source of the Mission. CTG 19.1 takes his task from paragraph 3 of his superior's directive. Since CTG 19.1 has the main or striking role in this operation, his task from paragraph 3a. is:

"Prevent the establishment of GREEN bases on ATTU ISLAND during the period 10 June 198- through 1 September 198-."

His purpose, taken from the mission statement of his superior, CTF 19, is:

"Avert GREEN expansion in the NORTH PACIFIC AREA."

F.3.2 State Own Mission. The combination of the task and purpose statement produces RADM WB's mission:

"Prevent the establishment of GREEN bases on ATTU ISLAND during the period 10 June 198- through 1 September 198- in order to avert GREEN expansion in the NORTH PACIFIC AREA."

After studying CTF 19's operation order of 25 May 198-, CTG 19.1 determined that his was the main or striking role and the other task groups in the operation were in supporting roles. He therefore utilized the phrase "in order to" in his mission statement in lieu of "in order to assist in."

F.3.3 Study Superior's Mission. ADM WA stated his mission in paragraph 2 of his directive:

"Avert GREEN expansion in the NORTH PACIFIC AREA in order to assist in the protection of ALASKA and the continental UNITED STATES from sea or air attack."

The superior's mission is to prevent GREEN from further expansion in the North Pacific area and thereby help protect Alaska and the continental United States from sea and air attacks. In his decision statement, CTF 19 has determined to accomplish this by denying the Aleutian Islands to GREEN by naval action. Attu Island is the only Aleutian Island occupied by GREEN and is the most susceptible to rapid base development. CTG 19.1's accomplishment of own assigned task will support his superior's mission by depriving GREEN of the most readily available island for developing bases in the Aleutian Islands.

F.3.4 Study Own Mission

F.3.4.1 Identify the Objective(s). The objective is the prevention of the establishment of GREEN bases on Attu Island during the period 10 June 198- through 1 September 198-.

F.3.4.2 Identify the Physical Objective(s). It is known that GREEN plans to establish advanced air and naval bases on Attu Island. GREEN is assembling advanced base construction units in the Petropavlovsk area to be deployed to Attu between 15 June 198- and 15 July 198- for this purpose. Reliable intelligence indicates that the only advanced base construction units available to GREEN during the period of this operation are those in the Petropavlovsk area. GREEN cannot establish advanced bases on Attu without these units. RADM WB therefore determines that his physical objective is the advanced base construction units, whether they are located in the Petropavlovsk area, on Attu, or enroute to Attu. In the latter case, the ships transporting the units to Attu are the physical objective while the advanced base construction units are embarked.

F.3.4.3 Note Contribution to Superior's Objective. RADM WB notes that accomplishment of his assigned task will contribute to the accomplishment of ADM WA's decision. The

prevention of the establishment of GREEN bases on Attu Island will materially assist in denying the Aleutian Islands to GREEN.

F.3.4.4 Note the Military Environment of the Operation. This operation will be conducted in an environment of open hostilities.

F.3.4.5 Note Significant Elements of the Problem

F.3.4.5.1 Obvious Planning Constraints. RADM WB realizes that his task is limited in time. GREEN's movement and build-up, which he is to counter, will take place between 15 June 198- and 15 July 198-. He must be ready in a little over 2 weeks. He also realizes that his task is basically a defensive one, since it implies that resources are not to be expended on decreasing or eliminating the present degree of enemy control over Attu Island. However, his defensive role can only be successfully carried out by offensive action. In view of WHITE's plans to recapture Attu by amphibious assault on 1 September 198-, RADM WB reasons that GREEN's base development on Attu must not reach an operational status in time to interfere significantly with the landing.

F.3.4.5.2 Rules of Engagement. *(Not included.)*

F.3.4.5.3 Assumptions. None.

F.3.4.6 Note Relationship With Other Subordinate Commanders in the Operation

1. Carrier striking group will carry out the offensive part of the operation.
2. Submarine group will provide reconnaissance.
3. Air patrol group will conduct antisubmarine support and ocean surveillance.
4. Mobile logistics support group will furnish logistic support of the carrier striking group.

F.3.4.7 Note Enemy Situation and Objectives. RADM WB, after being briefed on the latest intelligence, is confident that GREEN's military objective is the development of advanced naval and air bases on Attu Island. The geography and distances of the area are such that there are no other suitable alternatives for GREEN.

F.3.4.8 Summarize Key Points of the Analysis. In summary, RADM WB finds that:

1. His objective is the prevention of the establishment of GREEN bases on Attu Island during the period 10 June 198- through 1 September 198-.
2. His task is essentially defensive, but of-
fensive action must be employed.
3. His physical objectives are:
 - (a) Advanced base construction units in Petropavlovsk
 - (b) GREEN convoys carrying advanced base construction units from Petropavlovsk to Attu
 - (c) Base construction on Attu, if the construction units reach Attu.

F.4 STEP 2 - CONSIDERATIONS AFFECTING POSSIBLE COURSES OF ACTION

F.4.1 The General Situation. GREEN and WHITE have been at war for 18 months. GREEN, an Asiatic-European coalition has occupied the entire mainland of Asia and has overrun Europe, excluding France, Portugal, Spain, and Great Britain. Africa, the Middle East, and Pacific Islands of strategic importance are still held or controlled by WHITE. At present both sides are exerting major efforts in France and at the Turkish-European border.

The North Pacific area has been quiet after the first month of the war. During the first month all WHITE bases in the Aleutian Islands and Alaskan Peninsula, except Kodiak, were destroyed by nuclear attack. Subsequently, Attu Island was occupied by a small GREEN force. GREEN has not developed Attu as a base for air or naval operations.

F.4.2 Characteristics of the Area of Operations

F.4.2.1 General Factors

F.4.2.1.1 Political Factors. Attu Island has been WHITE territory for many years. Small native population is friendly to WHITE.

F.4.2.1.2 Economic Factors. There is no industry in the area. All equipment and supplies to develop bases must be imported.

F.4.2.1.3 Psychological Factors. The Aleutian natives will passively resist GREEN occupation of Attu and will actively support WHITE intelligence activities.

F.4.2.2 Fixed Factors

F.4.2.2.1 Hydrography. The ocean area of the North Pacific, exclusive of seas and straits, is characterized by depths that range to some 2,000 fathoms a short distance from the coasts of Alaska, the Aleutians, Kamchatka, and the Kuriles. Sea and strait depths are, for the most part, shallow and mineable. Underwater sound conditions are variable, ranging from excellent, in ocean areas not affected by temperature discontinuities, to poor, in confined bodies of water where shallow depths and tidal currents are predominant. In summer, assured sonar ranges are fair to poor in the vicinity of the Aleutians.

In the Aleutians, Kamchatka, and the Kuriles, the tidal range is generally less than 7 feet.

The two principal currents in the North Pacific are the Japan Stream and the Kamchatka Current. The Japan Stream is a warm water current that passes close to eastern Japan, then proceeds northeastward, passing about 500 miles south of the Aleutians, before turning southward off the coast of North America. In contrast, the Kamchatka Current is a cold water current that passes along the east coast of Siberia from the Bering Strait. Upon reaching a position to the eastward of the Kuriles, it turns northeastward and flows parallel to and north of the Japan Stream. These two currents exert a marked influence on the climate of bordering coastal regions.

In the coastal waters of the Aleutian and Kuriles chains, unusually strong currents and tide rips prevail.

In the Bering Sea, there is a general movement of ice northward beginning in April. By early May, the ice is clear of the Pribilof Islands. Generally by June, the whole body of ice is well up with St. Lawrence Island at the southern approach to the Bering Strait.

The Bay of Avachinskaya (Petropavlovsk) and its approaches are characterized by depths of water less than 15 fathoms and a long narrow entrance.

Conclusions: Sonar conditions are fair to poor.

Unusual current conditions prevail in this area and must be given careful consideration for navigational purposes.

Ice should offer no problems to navigation in the operating areas.

The harbor exit from Petropavlovsk is susceptible to mining.

F.4.2.2.2 Terrain and Topography. The topographic features of the Aleutian and Komandorski Islands are uniformly rugged with steep mountains of moderate height, bold shore lines, and numerous off-lying islets, rocks, and

reefs. The rugged terrain of Attu presents very few level areas suitable for air bases and only a few sites suitable for naval bases. Airfields on Attu and Komandorski are partially surrounded by mountains of 2,000 to 3,000 feet in height.

Petropavlovsk, situated on the northeast coast of Avachinskaya Bay about 10 miles from the sea, is almost surrounded by high hills. There are mountains rising to 8,000 feet 20 miles to the south and 30 miles to the north of Petropavlovsk.

Conclusions: The rugged terrain of the Aleutian and Komandorski Islands provides excellent aids for radar navigation.

The Petropavlovsk area requires conduct of low altitude air attacks under good visibility conditions.

F.4.2.2.3 Climate and Weather. In the summer, the northern and western portions of the North Pacific area are characterized by general low pressure over Asia and high pressure over the Pacific. Depressions occur frequently, but they are shallow, slow moving, and highly productive of rainfall. Pressure gradients are slight. Consequently, winds are 12 to 15 knots up to 6,000 feet. Winds aloft coincide in direction with surface winds but increase in velocity with the altitude. Calms are experienced not more than 20 percent of the time. Gales are rare. Localized winds of great violence, known as "williwaws," are experienced occasionally in the passes of the Aleutians.

The outstanding feature of summer weather in the area is fog and cloudiness. Rainfall increases toward the late summer. Fog is heavy and persistent in a belt running eastward from the Okhotsk Sea parallel and south of the Aleutians to about the longitude of Dutch Harbor. Petropavlovsk shows a 63 percent incidence of fog may be expected about 25 percent of the time in the Bering Sea. Average or better flying conditions throughout the area are calculated roughly at 50 percent in the

south, 60 percent in the central portion, and 70 percent in the north. There are frequently strong frontal systems moving through the area west to east.

Conclusion: Aircraft operations may often be disrupted or limited by fog and frontal passages.

F.4.2.2.4 Daylight and Dark Periods. For the location lat. 55° N. 175° E., daylight and dark periods are shown in the following tables:

Date	Twilight/ Sunrise	Sunset/ Twilight	Moon- rise	Moon- set	Phase
15 Jun	0220/ 0320	2040/ 2135	2356	1113	Last Qtr
15 Jul	0250/ 0340	2030/ 2120	2237	1329	Last Qtr
15 Aug	0350/ 0432	1935/ 2015	2200	1543	Last Qtr

Principal Phases of the Moon

New Moon	First Qtr	Full Moon	Last Qtr
22 Jun	30 Jun	9 Jun	16 Jun
22 Jul	30 Jul	8 Jul	15 Jul
20 Aug	29 Aug	6 Aug	13 Aug

Conclusions: There are approximately 18 hours for day searches or attack in June and July and 16 hours in August.

On clear nights and with the proper phase, the moon will provide some illumination during approximately three quarters of the darkness hours.

F.4.2.2.5 Locations and Distances

Air Line Distances (Nautical Miles)

Kodiak - Attu Island	1,200
Kodiak - Petropavlovsk	1,700
Kodiak - Komandorski Island	1,450
Kodiak - Pearl Harbor	2,200
Kodiak - Seattle	1,350
Kodiak - Dutch Harbor	530
Petropavlovsk - Komandorski Island	300
Petropavlovsk - Attu Island	520
Petropavlovsk - Paramushiro	210
Komandorski Island - Attu Island	270
Komandorski Island - Dutch Harbor	960
Attu Island - Dutch Harbor	770

Conclusions: WHITE's operations will be conducted at great distances from own bases.

GREEN's bases are relatively close to the area of operations.

F.4.2.2.6 Lines of Transportation and Supply. GREEN supplies Komandorski and Attu Islands by air and sea from Petropavlovsk. Average monthly shipping consists of four ships to Komandorski and one to Attu. There is weekly air support to both islands.

WHITE's major naval base at Kodiak has adequate air and sea supply lines from WHITE's homeland. TG 19.1's logistic support must be obtained from Kodiak. Underway replenishment is a means of resupply.

Conclusion: GREEN's lines of supply to Attu Island are appreciably shorter than WHITE's lines of supply.

F.4.2.2.7 Health and Sanitation Conditions.

In the Bering Sea, the mean temperature during summer is only slightly above 50°F. In the operating area, the mean summer temperature is only slightly above freezing.

Conclusion: Operations in this area will require special clothing and equipment and immediate rescue of downed aviation personnel.

F.4.2.2.8 Facilities and Fixed Defenses.

GREEN possesses a well-defined major air and naval base at Petropavlovsk. Komandorski Island provides a good advanced air base (capacity 100 fighters or light bombers) to extend the effective radius of action of GREEN aircraft. Komandorski can also be defended by a heavy concentration of aircraft based at Petropavlovsk. Attu Island is lightly defended by minor anti-aircraft installations. Attu is outside the effective range of fighter aircraft based at Petropavlovsk. It must depend on aircraft based on Komandorski for air defense.

WHITE has a major naval base and airfield at Kodiak Island. This is the only major outpost in the Aleutian Islands.

Conclusions: Attacks on Komandorski Island can be resisted by fighter aircraft based at Petropavlovsk and by aircraft and anti-aircraft installations located on Komandorski.

Attacks on Attu Island can be resisted by GREEN aircraft from Komandorski and by minor anti-aircraft installations on Attu.

F.4.2.2.9 Area Communication Facilities.

WHITE's primary communication facilities in the area consist of a major communication center at Kodiak that has adequate facilities for ship-to-shore traffic and a FLEET broadcast. Ship-to-shore traffic can also be sent to major

radio stations at Pearl Harbor and San Francisco. All WHITE radio stations have adequate facilities and personnel to handle a greatly increased traffic load. Electronic countermeasures equipment in WHITE ships are capable of limited interception and jamming of GREEN shore transmissions. Frequent ionospheric storms in the area can cause temporary "blackouts" in long-range radio transmissions.

GREEN is known to have an efficient area communication network with ample capacity for expansion. Peacetime jamming of "Radio Voice of America" in this theatre was most effective and indicates GREEN has powerful jamming equipment operated by well-trained personnel.

Conclusions: WHITE has adequate communication facilities for passing traffic; however, transmissions are susceptible to enemy electronic jamming and atmospheric disturbances.

WHITE is not capable of effectively jamming GREEN's radio communication transmissions but could conduct sporadic "heckling" on some frequencies.

GREEN has adequate radio and landline facilities to support planned operations.

F.4.3 Examine Relative Combat Power

F.4.3.1 Compare Opposing Forces

F.4.3.1.1 Naval Forces. (For demonstration purposes, GREEN forces are assumed to have characteristics similar to corresponding WHITE forces.)

Type	Armament	WHITE	GREEN
CV (MIDWAY)	Sparrow Launcher, 2 Close-in Weapon System, 3	1	0

CG (LEAHY)	Asroc/ Harpoon Launcher, 1 ASW Torpedo Launcher, 2 Standard (ER) Launcher, 2	3	6
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(Continue analysis for remainder of forces assigned.)

Elements of the North Pacific Submarine Group (eight submarines) are available for the support of this operation. GREEN's state of training, morale, and quality of equipment are considered to be equal to WHITE's.

Conclusions: GREEN possesses an advantage over WHITE in the number of surface ships and superiority in surface firepower.

The lack of carriers deprives GREEN of air support beyond the combat radius of shore-based aircraft.

WHITE has adequate mobile air support and a moderate advantage over GREEN in surface-to-air missile defense.

WHITE should avoid surface action against a concentration of GREEN surface forces.

F.4.3.1.2 Land Forces

WHITE	GREEN	
None	Garrison Forces, Attu	1,000
None	Defense Forces, Komandorski	3,000

Garrison forces on Attu are combat troops, trained and equipped to maintain control of the island. They possess neither the skills nor the equipment to build advanced bases. They can, however, provide some services and manpower to the advanced base construction units, if garrison duties permit.

Defense forces on Komandorski are specially trained and equipped to defend the GREEN air base on Komandorski. They could be used as emergency manpower for labor gangs on Attu. However, if an operation is undertaken to establish an advanced base on Attu, it is probable that defense activity on Komandorski will be at its peak. It is unlikely that many defense forces could be spared.

Conclusion: GREEN's garrison forces on Attu Island have a limited capability to assist in the establishment of bases on Attu, once construction material and base construction personnel are ashore.

F.4.3.1.3 Air Forces

Type	Radius	Weapon Load	WHITE	GREEN
Jet Fighter	600 nm	AAMs	56	48
Jet Attack	600 nm	Bombs, 3 tons	74	0

(Continue analysis for remainder of forces assigned.)

Aircraft of the North Pacific Air Patrol Group (18 land-based aircraft at Kodiak) are available for the support of this operation.

Conclusions: GREEN possesses superiority in numbers of aircraft; however, the aircraft are all land based. Without in-flight refueling, fighters based at Petropavlovsk are unable to operate east of Komandorski.

Air protection of convoys east of Komandorski and air defense of Attu depend on aircraft based at Komandorski. This airfield has a maximum capacity of 100 fighters and light attack aircraft.

WHITE has numerical superiority in the vicinity of Komandorski and Attu Islands; GREEN has numerical superiority in the Petropavlovsk area.

F.4.3.2 Compare Opposing Communications-Electronics Capabilities

F.4.3.2.1 WHITE. The following minimum communication equipment is installed in each ship of TG 19.1:

- 4 VHF/UHF transmitters
- 6 VHF/UHF receivers
- 2 LF/MF/HF transmitters
- 6 LF/MF/HF receivers
- 2 RATT (receivers)
- 1 Omnidirectional infrared signaling equipment
- 1 Directional infrared signaling equipment
- 1 ECM (receiver)

Each WHITE aircraft is fitted with one VHF/UHF transceiver. AEW and some attack aircraft have in addition one LF/HF transceiver.

Identical sets of radio crystals are available for all ships and aircraft.

Messages to CTG 19.1 from superior and coordinate commanders will be copied on the MIDPAC broadcast. CTG 19.1 may also listen in on reporting nets employed by aircraft of TG 19.3 and submarines of TG 19.2.

Direct communications between CTG 19.1 and the submarines of TG 19.2 and aircraft of TG 19.3 will be possible only when in visual contact. Common crystalization exists for all units of TF 19.

Messages from CTG 19.1 to superior and coordinate commanders will be sent to NAVCOMMSTA Kodiak for relay. Such long-range transmissions are very susceptible to interception by GREEN's radio direction finders.

Communications within TG 19.1 can be limited to frequencies in the VHF/UHF range or made using visual and infrared methods.

F.4.3.2.2 GREEN. GREEN's ships and aircraft are known to have similar types and quantities of communication equipment. GREEN has adequate shore-based radio facilities in the Petropavlovsk area to support fleet units.

Conclusions: The communication equipment in TG 19.1 is considered adequate to provide for maneuvering circuits, CIC nets, air control nets, broadcast reception, visual signaling, ECM intercept, and direct communications with friendly submarines and patrol aircraft. The equipment permits an efficient and secure communication system within TG 19.1, without revealing the presence of the task group beyond line of sight range.

Messages transmitted by TG 19.1 to Kodiak will necessitate use of frequencies which may disclose the presence and location of own forces.

GREEN forces can be expected to possess comparable communication capabilities and may have the added advantage of operating much closer to a shore-based radio station.

F.4.3.3 Compare Logistics Capabilities

WHITE	GREEN
Major naval base at Kodiak	Major naval and air base at Petropavlovsk.
Underway replenishment by TG 19.4	Emergency support available at Komandorski.

GREEN convoys and covering forces must carry sufficient fuel, ammunition, and supplies from Petropavlovsk to reach Attu and return, in addition to conducting possible offensive operations. Only limited emergency support is available at Komandorski. GREEN forces are estimated to carry sufficient fuel and supplies to operate for 30 days at slow speeds. The voyage from Petropavlovsk to Attu and return should not exceed 7 days.

WHITE forces will operate for a long period of time at a great distance from the supply base at Kodiak but will be resupplied at sea. It will be necessary to withdraw periodically from the operating area to a safe area for underway replenishment.

Conclusions: Logistic considerations will not restrict GREEN's offensive operations, if the operation is terminated within 30 days.

WHITE can remain near the operating area indefinitely and can shift logistic support as the area of operation changes.

F.4.3.4 Compare Time and Space Factors. Attu Island is 520 miles from Petropavlovsk and 270 miles from Komandorski Island.

A convoy moving at 15 knots requires about 35 hours to cover the distance between Petropavlovsk and Attu. Since the convoy must depend on aircraft based on Kamchatka and Komandorski for air defense, it could be routed via Komandorski. This will add approximately 10 hours to the voyage. The length of time fighter aircraft can remain over the convoy and covering force is very limited. The time is reduced to approximately 30 minutes as the force approaches Attu. Furthermore, the convoy and the covering force may be separated by many miles, which makes it impractical for one group of aircraft to cover both forces.

GREEN's covering force must remain in a position to interpose itself between the convoy and a WHITE attack. This will restrict its freedom of action and cause it to rely on aircraft

and submarines for intelligence of WHITE's movements.

Conclusions: GREEN convoy(s) will require approximately 35 hours to make the voyage from Petropavlovsk to Attu.

GREEN's air defense of Attu Island, the convoy, and the covering force must rely on fighter aircraft operating at extreme range from Komandorski.

GREEN's covering force will be tied to convoy movements.

F.4.4 Assess Factors of Environment and Relative Combat Power

F.4.4.1 Identify Deficiencies in Information. Reliable intelligence has reported that GREEN is assembling advanced base construction units in the Petropavlovsk area. It is essential that RADM WB know when the units commence loading out in transport ships. Similarly, WHITE must detect the departure of transport ships and covering force as early as possible and maintain continuous surveillance of both convoy and covering force while they are en route to Attu Island. Reconnaissance efforts must commence immediately. Surveillance conditions will be less than optimum, due to the high probability of fog and the frequent passage of strong frontal systems during the summer. Close coordination will be required between the reconnaissance aircraft of TG 19.1, the submarines of TG 19.2, and the aircraft of TG 19.3.

F.4.4.2 Identify Sensitive Areas of Security. WHITE must withhold the location and composition of TG 19.1 from GREEN and must enforce strict EMCON measures within the task group. WHITE can transmit outgoing traffic from the task group via pre-cut tapes from aircraft that are launched from the carrier to points distant from the force. For other traffic, WHITE can utilize PIGEON POST via facilities at Kodiak.

F.4.4.3 Tabulate Strength and Weakness Factors

in the Kamchatka area.

Komandorski for air defense of Attu.

Strength Factors

WHITE

1. Freedom of action afforded by carrier mobility and mobile logistic support.
2. Numerical air superiority in the objective area.
3. Ability to move to areas of favorable weather for conduct of air operations.
4. Surprise in timing of air strikes.
5. Numerical superiority in all-weather aircraft.
6. Superiority in surface-to-air missile defense.

GREEN

1. Superiority in number of surface ships and firepower.
2. Adequate shore-based logistic support.
3. Can move towards Attu under protection of advancing weather front.
4. Submarine superiority.

Weakness Factors

WHITE

1. The great distance from the supply base at Kodiak makes the operation dependent upon underwater replenishment.
2. Limited air reconnaissance capability

GREEN

1. Lack of continuous air defense by aircraft over convoy and covering force.
2. Reliance on aircraft based on

3. Lack of carriers.

F.4.4.4 Make Initial Determination of Adequacy of Own Force. WHITE runs considerable risk if his forces come under the envelope of GREEN's land-based aircraft or join in an action with his surface forces; however, WHITE has a large area of open ocean in which to operate and can launch aircraft against GREEN's Petropavlovsk-Attu Island transit route from well outside the maximum range of his combat aircraft. Considering all aspects of the problem at this point in the estimate, TG 19.1 has adequate forces to accomplish its mission.

F.5 STEP 3 — ANALYSIS OF OPPOSING COURSES OF ACTION

F.5.1 Enemy Capabilities. Intelligence indicates that GREEN plans to construct air and naval bases on Attu Island. This is an undertaking of considerable magnitude and GREEN should be prepared for determined opposition to his move. To defeat or neutralize this opposition, GREEN is capable of a number of actions that, if implemented, could affect the accomplishment of WHITE's mission.

F.5.1.1 Consider and List Enemy Capabilities. GREEN can:

1. Conduct air attacks on TG 19.1 from Kamchatka or Komandorski
2. Utilize submarines in search and attack missions against TG 19.1 and underway replenishment ships
3. Evade TG 19.1 and develop bases on Attu
4. Destroy TG 19.1 with superior surface firepower.

F.5.1.2 Weigh Relative Probability of Retained Enemy Capabilities. After each of the above capabilities are considered, they are summarized and combined where appropriate. Enemy capabilities (ECs) are then listed in order of probability, based on GREEN's intentions.

EC No. 1 Evade TG 19.1 and develop bases on Attu.

EC No. 2 Destroy TG 19.1.

F.5.2 Own Courses of Action

F.5.2.1 List Tentative Own Courses of Action. The task of CTG.19.1's mission is "to prevent the establishment of GREEN bases on ATTU ISLAND during the period 10 June 198- through 1 September 198-."

In his analysis of his mission, RADM WB identified the following physical objectives against which appropriate action should be taken to accomplish his mission:

1. Advanced base construction units in Petropavlovsk area
2. Ships transporting these units to Attu Island
3. Base development on Attu.

A preliminary study of possible actions against these physical objectives indicates:

1. Action to destroy advanced base construction units at Petropavlovsk
2. Action to prevent ships carrying construction units to Attu from sailing during period of this operation
3. Action to prevent convoy(s) from reaching Attu in time to construct bases

4. Action to prevent unloading of construction units at Attu

5. Action against base construction on Attu to prevent bases becoming operational before 1 September.

This force is capable of taking the following military operations to carry out the possible actions:

1. Air strikes against advanced base construction units at Petropavlovsk

2. Air strikes against shipping assembling in Petropavlovsk to transport construction units to Attu or closing Petropavlovsk harbor by aerial mining

3. Air and surface action to destroy each convoy en route to Attu or turn it back

4. Air and surface action to prevent unloading at Attu

5. Air strikes and surface bombardment to delay or destroy base construction on Attu to prevent bases from becoming operational.

These own courses of action (OCAs) are developed and listed as follows:

Tentative OCA No. 1	Destroy advanced base construction units at Petropavlovsk by air strikes.
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Tentative OCA No. 2	Interdict the sea line of communication from Petropavlovsk to Attu by air and surface action.
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Tentative OCA No. 3	Neutralize base development on Attu by air strikes and surface bombardment.
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F.5.2.2 Consider Concept for Each Own Course of Action

F.5.2.2.1 Tentative Own Course of Action

No. 1. WHITE must conduct air strikes against the major GREEN naval and air base in this part of the North Pacific. In order to ensure destruction of base construction units at their assembly and loading point in Petropavlovsk, WHITE must employ virtually all of its attack aircraft, heavily protected by fighters, and utilizing in-flight refueling to extend the range of the aircraft and keep the task group outside the threat of GREEN air attack. Determined GREEN opposition can be expected from 350 miles off-shore in to the target area. WHITE must undertake offensive action predicated by this OCA prior to 15 June.

F.5.2.2.2 Tentative Own Course of Action

No. 2. During the major portion of the transit from Petropavlovsk to Attu, GREEN surface forces will have the protective cover of aircraft from Kamchatka and Komandorski airfields. During the latter portion of the transit, approximately 175 miles or 12 hours at 15 knots, GREEN forces will be most vulnerable to attack. WHITE's prior neutralization of facilities and aircraft at Komandorski will permit relatively unopposed WHITE air action against GREEN surface ships. During this period, WHITE surface action could have an increased probability of success, since the more powerful GREEN forces will also be engaged with the WHITE air threat. Bad weather, fog, and darkness during the 12-hour period could reduce the effectiveness of WHITE offensive action. WHITE surface units approaching the convoy and WHITE carriers transiting the Aleutian chain at more advantageous positions must be prepared for a concentrated effort by GREEN submarines. Accurate intelligence on the convoy's location, course, and speed is essential. WHITE forces must be prepared to carry out this OCA between 15 June and 15 July.

F.5.2.2.3 Tentative Own Course of Action

No. 3. Units of TG 19.1 must operate within

effective air strike or surface gunfire range of Attu Island. Air strikes will be the primary method of neutralization. WHITE's prior destruction of aircraft and facilities at Komandorski will remove the threat of GREEN air opposition. WHITE surface units will conduct shore bombardment of installations on Attu whenever possible. Until reconnaissance indicates that portions of the GREEN covering force have departed the Attu area, WHITE must limit offensive action to raids and harassment fire. Fighters escorting WHITE attack aircraft can neutralize the effectiveness of GREEN surface combatants through damage to fire control, communications, and like equipment. GREEN submarines will have a smaller area in which to search for and attack WHITE forces. Offensive action under this OCA will be required from the prelanding phase, which could be as early as mid-June, throughout the summer, until the WHITE amphibious assault on 1 September.

F.5.2.3 Test for Suitability and Make Preliminary Tests for Feasibility and Acceptability to Determine Retained Own Courses of Action

F.5.2.3.1 Tentative Own Course of Action

No. 1. This course of action requires attack on the strong GREEN base complex on the Kamchatka Peninsula. A study of relative combat power places it in the high-risk category. Success is problematical. Although suitable, it is discarded as an unacceptable risk.

F.5.2.3.2 Tentative Own Course of Action

No. 2. This course of action, if successfully carried out, will completely accomplish the mission. However, there is some question of its feasibility. Probable losses are acceptable.

F.5.2.3.3 Tentative Own Course of Action

No. 3. This course of action entails delaying advanced base construction on Attu in order to prevent bases reaching operational status. It is suitable, feasible, and acceptable.

F.5.2.3.4 List Own Courses of Action Retained. Retained own courses of action can now be stated as:

- | | |
|-----------|---|
| OCA No. 1 | Interdict the sea line of communication from Petropavlovsk to Attu by air and surface action. |
| OCA No. 2 | Neutralize base development on Attu by air strikes and surface bombardment. |

F.5.3 Analysis by Opposing Own Courses of Action and Enemy Capabilities

F.5.3.1 Analysis of OCA No. 1 vs. EC No. 1

OCA No. 1	EC No. 1
Interdict the sea line of communication from Petropavlovsk to Attu by air and surface action.	Evade TG 19.1 and develop bases on Attu.

GREEN convoy(s) may evade TG 19.1 and reach Attu by any one or a combination of the following actions:

1. Deny WHITE intelligence on movements
2. Take action to temporarily neutralize TG 19.1's offensive capabilities
3. Take advantage of adverse weather to nullify WHITE's local air superiority.

Heavy air defenses at Petropavlovsk will severely limit reliable intelligence by long-range aerial reconnaissance. However, reconnaissance submarines off Petropavlovsk should provide CTG 19.1 with timely intelligence on convoy departure(s). WHITE forces should be able to determine the position of a large force, moving between two known points at a relatively slow speed, if submarines are properly deployed and weather permits long-range aerial

reconnaissance. GREEN cannot deny CTG 19.1 all information on convoy movement(s). CTG 19.1 requires accurate intelligence in time to obtain a favorable position to launch an attack.

GREEN can cover convoy(s) en route to Attu utilizing aircraft based on Kamchatka and Komandorski, except for the last 175 miles, when GREEN can provide protection only with aircraft based on Komandorski. GREEN's overall numerical superiority in aircraft on Kamchatka forecasts heavy losses for TG 19.1, if task group units attack convoy(s) within range of fighters based on Kamchatka. Therefore, task group units will delay attacks on convoy(s) until convoy(s) are within 175 miles of Attu. Assuming a maximum speed of advance of 15 knots, convoy(s) will require about 12 hours to transit the area of decreased air protection.

Jet light bombers from Komandorski are of little value to GREEN in defending his convoy(s) against jet fighter attacks. GREEN could make a maximum effort during the crucial 12-hour period either to provide fighter aircraft from Komandorski over the convoy(s) or to neutralize WHITE carriers. Utilizing the 50 jet fighters based on Komandorski, GREEN could put only about 15 fighters over the convoy(s) at any one time. This level of air defense is not likely to forestall WHITE's destruction of the convoy(s) and permit safe arrival(s) at Attu. If GREEN launched a raid of 50 fighters and 50 light bombers from Komandorski against TG 19.1 up to a range of 350 miles, the attack might neutralize WHITE carriers for the 12 hours that convoy(s) require to traverse the last 175 miles to Attu. Since TG 19.1 has local air superiority over air forces at Komandorski, it can eliminate this possibility by neutralizing Komandorski air base, thereby depriving the convoy(s) of air support within 175 miles of Attu.

Since GREEN has the initiative, he can use bad weather, moving in an easterly direction toward Attu, to cover convoy movement(s). If weather conditions prevent coordinated air attacks on the convoy(s), CTG 19.1 may be

faced with the decision to risk possible destruction of his forces in action against superior GREEN surface forces or allow the convoy(s) to reach Attu. CTG 19.1 should provide for this contingency.

In summary, this analysis reveals:

1. TG 19.1's ability to prevent advanced base construction units from reaching Attu by interdicting the sea line of communication from Petropavlovsk to Attu is not certain. It is possible that a convoy with a strong surface covering force may reach Attu under cover of bad weather.
2. This own course of action depends on timely receipt of intelligence, neutralizing Komandorski airpower, and avoiding the area covered by fighter aircraft based on Kamchatka.
3. This own course of action indicates the need for an alternate own course of action to prevent base development after convoy arrival(s) at Attu.

F.5.3.2 Analysis of OCA No. 1 vs. EC No. 2

OCA No. 1

EC No. 2

Interdict the sea line of communication from Petropavlovsk to Attu by air and surface action.

Destroy TG 19.1.

TG 19.1 will be the only major naval offensive threat to GREEN in the Alaskan Theater during the period 10 June to 1 September. Therefore, in considering GREEN's capability to destroy his force, CTG 19.1 must accept the condition that all GREEN forces in the area may be brought to bear against him. He must consider GREEN's capability to destroy TG 19.1 by submarine attack, air attack, surface attack, and mines.

GREEN can employ submarines against TG 19.1 by (1) operating in close support of the convoy(s) and covering force, (2) concentrating in the narrow passages of the Aleutian Islands through which TG 19.1 is likely to pass, and (3) operating as advanced reconnaissance units in coordination with patrol aircraft. Normally, GREEN would not have all 11 submarines at sea at any one time.

If all submarines operated in close support of the convoy(s) and covering force, they could have little effect on air operations against the convoy(s) and would be limited primarily to early warning of air raids. However, a concentration of submarines near the convoy(s) and covering force would pose a major threat in a surface engagement.

A coordinated attack by submarines, deployed around TG 19.1's passage through the Aleutian Islands, might cause major damage to the force. But GREEN must establish TG 19.1's intended movements in sufficient time to permit the submarines to concentrate. TG 19.1 must operate in such a manner as to deny GREEN knowledge of intended movements through the Aleutian Islands.

The difficulty of locating a mobile force in the vastness of the north Pacific Ocean and the Bering Sea may prompt GREEN to deploy his submarines as advanced reconnaissance units. The possibility of encounters with individual submarines is a constant threat, which requires that TG 19.1 take antisubmarine measures.

The GREEN air threat to TG 19.1 stems from aircraft based on Kamchatka and Komandorski and GREEN's ability to augment or replace aircraft on Komandorski from Kamchatka. Komandorski has a maximum capacity for 100 fighters and light bombers. GREEN has numerical superiority in aircraft within a 350-mile radius of Kamchatka. Beyond this distance, without fighter support, the effectiveness of medium bombers will be reduced. The possibility of large-scale bomber attacks from Kamchatka, escorted by fighters

based on Komandorski, must be considered. Since GREEN has the initiative in timing, such coordinated air attacks will pose a serious and continuing threat. Coordinated air attacks by light bombers and fighters based on Komandorski are possible up to a distance of 350 miles, which includes Attu Island. The size and frequency of such raids dictate that CTG 19.1 take action to reduce the air threat.

GREEN surface units have superiority in number and fire power. However, carrier air power gives TG 19.1 an overall combat superiority against a GREEN surface force. If fog and adverse weather conditions reduce air operations at a critical time, a GREEN surface force could engage and possibly destroy TG 19.1. However, GREEN surface units will be somewhat restricted in movement, if they are required to remain within covering distance of a slow-moving convoy and in favorable position to interpose themselves between the convoy and TG 19.1. Possible submarine concentrations near the convoy add another hazard in a surface engagement.

GREEN's minelaying capability will have little effect on TG 19.1, since hydrography limits effective minefields to coastal waters and waters of the Aleutian Straits. If TG 19.1 must transit the Aleutian Island chain, preliminary reconnaissance and movement through the deepest and swiftest passage should reduce the mining threat to an acceptable level.

The success of this course of action — interdicting the sea line of communication from Petropavlovsk to Attu by air and surface action — hinges upon CTG 19.1 receiving timely intelligence of enemy ship movements. Heavy air defenses in the Petropavlovsk area will limit the reliability of long-range aerial reconnaissance and the use of carrier-based, long-range, attack aircraft for this purpose will disclose the presence of a carrier task group in the area. The most effective source of shipping information in the Petropavlovsk area are the eight submarines of TG 19.2. Long-range reconnaissance aircraft of TG 19.3 can provide

coverage of areas beyond effective defensive range of fighter aircraft based at Petropavlovsk and Komandorski and should also be able to provide CTG 19.1 with reasonable intelligence on the disposition of GREEN submarines and on enemy mining activities in the Aleutian Straits. Weather conditions at the base and, to a lesser degree, in the operating area may prohibit long-range aerial reconnaissance at a crucial time.

TG 19.1 can attack convoy(s) beyond the range of aircraft based on Komandorski, but the convoy(s) will be in the attack area for only a short period. The uncertainty of air operations during this period, due to weather conditions, makes it necessary that the period of attack not be so confined. Neutralization of Komandorski air base will give CTG 19.1 freedom of action.

TG 19.1 must employ strict communication security and vigorous antisubmarine security measures to prevent submarines from attaining a favorable attack position and to thwart GREEN efforts to collect intelligence on force activities.

By avoiding areas within 350 miles of Kamchatka, TG 19.1 can effectively counter any air threat which GREEN might launch. CTG 19.1 must station ships and aircraft to provide early warning against possible escorted bomber raids west of long. 176° E.

Attacks by GREEN surface units seem improbable, if TG 19.1 maintains control of the air. Adverse weather conditions could reduce carrier air operations and place TG 19.1 at a disadvantage in an engagement with a surface force.

In summary, this analysis reveals:

1. Destruction by enemy air and surface action is the major threat to accomplishment of this own course of action. CTG 19.1 must capitalize on mobility to reduce the threat to an acceptable level.

2. Forces assigned are adequate to accomplish this own course of action with acceptable losses.

3. This own course of action depends on timely receipt of intelligence on enemy ship movements, neutralizing airpower on Komandorski to provide adequate freedom of action, and avoiding the area covered by fighter aircraft based on Kamchatka.

4. This own course of action indicates the need for an alternate own course of action, since bad weather may interfere with operations to the extent that convoy(s) may reach Attu Island.

F.5.3.3 Analysis of OCA No. 2 vs. EC No. 1

OCA No. 2

Neutralize base development on Attu by air strikes and surface bombardment.

This own course of action presupposes that the major portion of advanced base construction units and equipment has reached Attu. Therefore, the enemy capability is concerned with the continued build-up of base construction forces and equipment on Attu.

While TG 19.1 is conducting prolonged neutralization attacks against base development on Attu and aircraft and facilities on Komandorski, GREEN will be sending additional convoy(s) with base construction personnel and equipment to Attu.

These convoy(s) may have reduced surface protection, since GREEN may have retained a portion of the original covering force at Attu for defense. However, the surface force at Attu could augment the convoy covering force, during the most dangerous part of the voyage, and leave Attu temporarily without surface force protection.

EC No. 1

Evade TG 19.1 and develop bases on Attu.

Komandorski air strength is likely to be considerably reduced, as the result of TG 19.1's neutralization air strikes, and will be divided between air protection for convoy(s), air defense of base construction on Attu, and defense of Komandorski air base. Thus GREEN must expose convoy(s) or base construction on Attu to air attack with inadequate air defense or rely on adverse weather for air protection.

After the convoy(s) reach Attu, dispersal of base construction units and material will greatly reduce TG 19.1's capability to destroy them. This situation will require prolonged attrition and harassment operations and, if freedom of action is to be assured, continued neutralization of Komandorski air base.

If TG 19.1 can intercept the convoy(s) at sea, neutralization of Komandorski air base will be necessary only during the short time required for task group units to destroy the convoy(s). Such attacks would achieve more immediate and decisive results than operations against base development on Attu.

In summary, this analysis reveals:

1. GREEN must divide his air and surface forces to furnish adequate protection for convoy(s) and base development on Attu.
2. CTG 19.1 can either attack convoy(s) or continue neutralization of base development on Attu. Attacks on convoy(s) offer more immediate and decisive results.
3. Prolonged attrition and harassment operations against base development on Attu and continued neutralization of Komandorski air base to ensure freedom of action are likely to produce high losses.

F.5.3.4 Analysis of OCA No. 2 vs. EC No. 2

OCA No. 2

EC No. 2

Neutralize base development on Attu by air strikes and surface bombardment.

Destroy TG 19.1.

GREEN's capabilities to destroy TG 19.1, during operations against base development on Attu, arise from:

1. Komandorski-based aircraft
2. Strong surface covering force
3. Strong submarine force
4. Mines.

In surface operations against base development on Attu, positioning of TG 19.1's combatants within effective surface gunfire range of Attu will place them within range of aircraft based on Komandorski and light bombers and long-range reconnaissance aircraft based at Petropavlovsk. The possible size and frequency of air raids poses a serious threat to the force. However, CTG 19.1 will have the initiative in timing and positioning for launch of air strikes against base development on Attu. With physical objectives fixed on Attu, TG 19.1 can operate to eastward of Attu, without exposure to escorted bomber attacks.

CTG 19.1 does not know how GREEN intends to employ the covering force after convoy arrival(s) at Attu. Since local forces on Attu offer little protection for base development, CTG 19.1 cannot ignore the possibility that the covering force will remain near Attu. It is also possible that part of the covering force will return with the empty transports. If the covering force remains at Attu, it will be restricted in movement to the immediate area around Attu. Only under adverse flying conditions would the covering force be expected to

leave Attu unprotected to seek out and destroy TG 19.1.

Since TG 19.1's area of operations will be restricted to the vicinity of Attu, the effectiveness of GREEN submarine operations may be correspondingly increased. If the covering force remains near Attu, GREEN could support surface units with submarines to increase offensive strength in a surface engagement with TG 19.1.

GREEN can mine coastal waters and the waters of the Aleutian Straits, but the number of mines required will limit the effort to a few select areas and leave a number of deep, swift passages open.

Neutralization of base development on Attu will not produce immediately decisive results. TG 19.1 must remain in the area for a considerable time to conduct attrition and harassing operations. Weather should have little effect on TG 19.1's air operations, since attacks can be made in periods of satisfactory weather. However, the shore bombardment unit could be exposed to heavy and frequent fighter and light bomber attacks and to a superior surface force, possibly augmented by submarines. Neutralization of Komandorski air base and the absence of the major part of the covering force will be necessary to permit shore bombardment with acceptable losses.

In summary, this analysis reveals:

1. Superior surface forces can oppose TG 19.1 in the vicinity of Attu, but they will be without air support eastward of Attu.
2. This own course of action gives CTG 19.1 initiative in the selection of time and conditions for action.
3. This own course of action is not immediately decisive. Prolonged attacks may result in substantial losses.
4. Komandorski air strength offers limited opposition to TG 19.1's air strikes against

Attu; however, it is necessary for CTG 19.1 to neutralize the air threat to gain freedom of action.

5. TG 19.1 must avoid shore bombardment of Attu under conditions that permit a concentration of superior surface forces.

F.6 STEP 4 — COMPARISON OF OWN COURSES OF ACTION

F.6.1 List and Consider Advantages and Disadvantages

OCA No. 1	OCA No. 2
Interdict the sea line of communication from Petropavlovsk to Attu by air and surface action.	Neutralize base development on Attu by air strikes and surface bombardment.

Advantages

- | | |
|--|--|
| <p>1. Decisive.</p> <p>2. Contains possibility of surprise.</p> <p>3. Least probable losses.</p> | <p>1. Gives initiative in selection of time and conditions for action.</p> |
|--|--|

Disadvantages

- | | |
|---|--|
| <p>1. Successful accomplishment depends on accurate and timely intelligence.</p> <p>2. Intelligence must be obtained on areas under high degree of enemy control.</p> | <p>1. Not immediately decisive.</p> <p>2. Requires continuous attrition.</p> |
|---|--|

3. Success questionable due to bad weather and short portion of convoy(s) transit within desired attack zone.

3. Higher probable losses.

F.6.2 Make Final Test for Suitability, Feasibility, and Acceptability. Both courses of action are suitable. Either course will accomplish CTG 19.1's assigned mission in its entirety. However, Course No. 1 has the advantage of being more decisive.

Course No. 1 is feasible, provided adequate intelligence of enemy movements is available and weather conditions permit air operations during the limited period that convoy(s) are in the acceptable attack zone. CTG 19.1 has no assurance that either of these conditions will necessarily occur. Therefore, the feasibility of Course No. 1 is doubtful. On the other hand, the eventual success of Course No. 2 is assured.

Prolonged harassment and attrition operations in Course No. 2 are expected to produce greater losses than Course No. 1. Therefore, Course No. 1 is more acceptable than Course No. 2.

F.6.3 Weigh Relative Merits and Select Own Course of Action for a Decision. Course No. 1 is more aggressive, decisive, and involves fewer losses than Course No. 2. However, its success is questionable, due to critical intelligence requirements and restrictions imposed by the prevalent bad weather in the operating area. Course No. 2 is more certain of ultimate success, due to the freedom of action afforded CTG 19.1 in selecting time and position of attack. Since the strengths and weaknesses of these courses offset each other, a combined course of action is considered necessary as the decision.

If convoy(s) bearing advanced base construction units manage to evade the interdicting forces and reach Attu, neutralization of base development would ensure successful accomplishment of the assigned mission. Such a combined course gives CTG 19.1 a "second shot at the target." Both courses indicate the desirability of neutralizing Komandorski air base. Such action is within the capability of TG 19.1. The combined course is feasible.

Combat losses resulting from the combined course should not be much greater than those expected from Course No. 2 alone, since successful accomplishment of Course No. 1 would reduce the requirement for continued neutralization strikes on Attu.

F.7 STEP 5 — DECISION

This force will interdict the sea line of communication from Petropavlovsk to Attu Island and neutralize base development on Attu Island by air and surface action.

F.8 DEVELOPMENT OF THE PLAN

This sample development of the plan follows the procedures in Chapter 3. For clarity, each step (1 through 8) is numbered and titled the same as corresponding steps in Chapter 3.

F.9 STEP 1 — REVIEW THE DECISION AND FORMULATE A BROAD CONCEPT OF THE OPERATION

F.9.1 The Decision Restated. This force will interdict the sea line of communication from Petropavlovsk to Attu Island and neutralize base development on Attu Island by air and surface action.

F.9.2 Broad Concept of the Operation. During the first or second week of June, the group will proceed to the Bering Sea, passing through the Aleutian Island chain east of Adak. The group will conduct a neutralization strike against the air base on Komandorski Island,

followed the next day by coordinated air and surface bombardment of base facilities on Attu Island. Air strikes will be launched from a position north and east of each target area. Following this initial offensive operation, the group will retire to an area west of the Pribilof Islands for replenishment. Following replenishment, the group will operate northwest of Attu Island in a position to interdict convoy(s) en route from Petropavlovsk to Attu. Should advanced base construction units reach Attu, the group will conduct air strikes and shore bombardment against the development on Attu and take air action to keep the air base on Komandorski neutralized. The group will remain at sea about 90 days and will be replenished about every 8 days.

F.9.2.1 Physical Objectives. The physical objectives are the convoy(s) transporting the advanced base construction units to Attu and the base development on Attu.

F.9.2.2 Major Enemy Weakness. GREEN's major weakness is his dependence on land-based fighters of short range for air cover of the convoy and Attu Island. His dependence on distant land-based air support is especially critical in this area, where the weather is spotty and unpredictable. It is a normal situation for good weather to exist over the target, while the base is "closed in" by bad weather, or vice versa. TG 19's greatest strength is that its aircraft are an integral part of the force, readily available near the target, when the opportunity for use arises. If bad weather prevents air operations, the force has the advantage of being concealed in it. The force must not be placed in a position where it can be attacked by fighter aircraft from both Komandorski and Kamchatka.

F.9.2.3 Submarine Threat. Submarines present a constant threat, which must be neutralized by operating at high speeds, by using evasive maneuvers, and by maximum use of available antisubmarine equipment.

F.9.2.4 Nuclear Weapons. Nuclear weapons were used freely during the initial phase of the war. There is no reason to believe that GREEN will not attempt to use them again on a profitable WHITE target. For this reason, TG 19.1 will be disposed so as to offer a poor target for nuclear attack. TG 19.1 will not employ nuclear weapons on Komandorski Island, since WHITE may plan to seize the island at some later stage in the war.

F.9.2.5 Surprise. Surprise is essential in the neutralizing attack on Komandorski. It will be helpful in the attacks on the convoy(s), but not paramount, so long as the attacks are made beyond range of fighter aircraft based on Kamchatka.

F.9.2.6 Maximum Security Measures. Maximum security measures will be taken to keep the location of the force a secret.

F.9.2.7 Communications. Provision will be made for direct rapid communications with operating units of friendly forces.

F.9.2.8 Logistic Support. Logistic support will be furnished by CTG 19.4 and Kodiak Naval Base.

F.10 STEP 2 — STATE ASSUMPTIONS

There are no assumptions upon which this operation is based.

F.11 STEP 3 — DETERMINE COMPONENT OPERATIONS AND FRIENDLY SUPPORTING OPERATIONS

A review of the decision reveals that the following requirements must be met to successfully implement the decision. (For practical purposes, requirements are grouped in general categories (i.e., Offensive, etc.). The first column includes each specific requirement, stated as a task; the second column provides the available means of accomplishing the task.)

F.11.1 Offensive. TG 19.1 must accomplish certain offensive tasks during the operation:

Tasks	Means
Destroy aircraft and air base facilities on Komandorski.	Carrier aircraft Surface units
Destroy base development on Attu.	Carrier aircraft Surface units
Destroy convoy(s) en route Petropavlovsk to Attu.	Carrier aircraft Surface units

To ensure freedom of action, TG 19.1 must neutralize Komandorski airpower when the force conducts sustained operations within 350 miles of Komandorski. The force should launch air strikes beyond range of fighter aircraft based at Petropavlovsk. Air defense on Komandorski requires fighter escorts for attack aircraft. Considering other operations, a position to the north and east of Komandorski is indicated (lat. 56° 30' N. long. 170° E.).

Should bad weather prohibit air operations, TG 19.1 should not attempt surface bombardment of Komandorski, since this is an unacceptable risk. Bombardment would require separation of surface forces, which would expose them to an unacceptable air threat and possible interception by superior enemy surface forces.

Once Komandorski airpower has been sufficiently neutralized to permit preliminary operations against Attu, TG 19.1 will conduct offensive air and surface operations to minimize the capability of occupation troops and facilities on Attu to support base construction units on arrival. These operations should be completed within the brief period of time after Komandorski is neutralized and before convoy(s) arrive in the area. TG 19.1 must be prepared to accomplish this by surface bombardment alone, if adverse weather prohibits air operations. If weather permits coordinated

air-surface operations, TG 19.1 can complete this phase rapidly. TG 19.1 must then rapidly replenish and prepare to conduct further offensive operations against convoy(s) en route to Attu and base development on Attu.

Destruction of convoy(s) can be accomplished by carrier-based aircraft. If weather prohibits air operations, the surface unit could destroy the convoy(s). CTG 19.1 must carefully weigh this action against (1) sound intelligence indicating the absence of strong surface units protecting the convoy(s) and (2) the possibility of limited air support of the convoy(s) by aircraft from Komandorski.

In the event convoy(s) reach Attu, TG 19.1 will launch attacks against base development as dictated by progress reports. If prolonged periods of bad weather or combat damage prohibit carrier flight operations, CTG 19.1 can dispatch surface units to Attu without air protection, provided the convoy covering force has left the area. The possibility of a submarine concentration at Attu must be recognized.

These conflicting and continuing demands on the offensive weapons of the force indicate that a position north of Attu will best permit (1) interception of convoy(s) approaching Attu, (2) conduct of air strikes and surface bombardment of Attu, (3) rapid movement to a favorable position for air strikes against Komandorski air base, and (4) positioning of the force within range of a favorable replenishment area. A position of lat. 54° N. long. $173^{\circ} 30'$ E. is therefore established.

Operations will be temporarily interrupted for periodic replenishment about every 8 days.

Due to the timing of the offensive tasks, there is no requirement to separate the individual carriers, so the carrier units can be maintained intact. However, it will be necessary to detach surface units for shore bombardment of Attu and for possible action against convoy(s). Offensive tasks to be

accomplished by own forces can be stated as follows:

Tasks	Means
Destroy aircraft and air base facilities on Komandorski, base development on Attu, and convoy(s) en route Petropavlovsk to Attu.	Carrier Unit
Destroy base development on Attu and convoy(s) en route Petropavlovsk to Attu.	Surface Unit

F.11.2 Movement. The planned movement and deployment of forces is as follows:

TG 19.1 will sortie from Kodiak on 6 June 198- and proceed via Amutka Pass to arrive at Point Harlem (lat. $56^{\circ} 30'$ N. long. 170° E.) at dawn on 9 June 198-. Following neutralization of Komandorski, the group will proceed toward Point Rugged (lat. 54° N. long. $173^{\circ} 30'$ E.). The shore bombardment force will break off on signal about midnight and proceed to bombardment at dawn on 10 June 198- in coordination with air strikes launched from Point Rugged. On signal, the group will reform and proceed to reach the southwest sector of the replenishment area (Area Mabel) at dawn on 13 June 198-. Following replenishment, the group will return to the operating area by 15 June 198-. Subsequent movements will depend on the situation.

TG 19.1 will be deployed as one force, except when it is necessary to conduct shore bombardment of Attu or take surface action against convoy(s) without air support.

The forces assigned will generally remain intact as one tactical unit, under the command of CTG 19.1, for movement. Detailed plans for the movement and deployment of this group will be set forth in the Movement Annex.

F.11.3 Logistics. TG 19.1 must accomplish certain functional tasks to maintain flexibility and permit the necessary sustained operations:

Tasks	Means
Replenish TG 19.1 at sea.	Underway Replenishment Unit of TG 19.4
Provide emergency repairs.	Mobile Logistic Support Group (TG 19.4) and Naval Base Kodiak
Provide emergency towing.	TG 19.4 tugs
Provide replacement aircraft and pilots.	Naval Base Kodiak

This operation covers a period of 85 days. During this time, logistic support will be furnished almost entirely by the Underway Replenishment Unit of TG 19.4. The nature and intensity of operations envisaged requires replenishment following the initial operation approximately every 8 days. The requirement that the entire force remain in the operating area almost continuously dictates location of the replenishment area as near to the operating area as the enemy threat will permit. The replenishment area will be northeast of the operating area, beyond range of medium bombers based on Kamchatka and light bombers based on Komandorski, and will include the area between lat. 55° N., lat. 60° N., long. 176° E., and long. 170° W.

Emergency repairs beyond the capacity of ship's force will be made at Kodiak. Damaged ships may require towing from the battle area by ships of TG 19.1 to a point where seagoing tugs of TG 19.4 can take over.

Replacement aircraft are available at Kodiak. Delivery can be made at distances up to 1,000 miles. However, to ensure safe delivery on board under rapidly changing weather conditions, it will be necessary to proceed to a position east of the Pribilof Islands. All ships will load all classes of supplies to capacity before departing Kodiak.

CTG 19.4 has stated that he is capable of providing the above requirements and has been notified of the planned replenishment area so that his planning may proceed. A detailed schedule will appear in the Logistic Annex.

F.11.4 Protection. TG 19.1 must undertake certain defensive tasks to adequately protect own forces against all enemy threats:

Tasks	Means
Protect against air attacks.	Aircraft (AEW and CAP) Ships
Protect against surface attacks.	Aircraft Ships
Protect against submarine attacks.	Aircraft (ASW patrols) Destroyers (screen)
Protect against mines.	Aircraft Ships

Fighters and light bombers based on Komandorski threaten TG 19.1 when the force is (1) conducting operations against Komandorski, (2) operating in a position to intercept convoy(s) approaching Attu, and (3) conducting neutralization raids on Attu. There is the possibility that a surprise raid of considerable strength could be launched against TG 19.1. The force is also exposed to unescorted medium-bomber attack and aerial reconnaissance from aircraft based on Kamchatka. Periodic neutralization raids against the Komandorski air base should greatly reduce the air threat. However, to guard against all threats, TG 19.1 must provide for early warning and maintain a

high degree of air defense while in the area of operations. CTG 19.1 will be requested to station a submarine off Komandorski to report air raids departing in the direction of the force and the arrival of replacement aircraft from Kamchatka. The submarine will also serve as a lifeguard and navigational aid for own aircraft.

Adverse weather conditions may restrict airborne early warning and combat air patrol operations. This possibility dictates that TG 19.1 rely primarily for early warning on surface ships and that air defense, at times, be limited to that which can be provided by destroyer, cruiser, and carrier missile batteries. Cruisers and DDGs, when operating in company with carriers, will be assigned the primary task of providing anti-aircraft defense for the carriers.

When operating against either target area (Komandorski or Attu), TG 19.1 is threatened with possible interception by superior surface forces. This threat is crucial if TG 19.1 air operations are prohibited. Should a surface engagement be forthcoming under adverse conditions, TG 19.1 will withdraw to create a more favorable situation. In this event, heavy support ships and destroyers will cover the rear of the retiring carriers. Every effort must be made to prevent the occurrence of this situation. There is a possibility that a strong surface force, protecting base development on Attu, might seek battle when conditions negate TG 19.1's carrier airpower. Continuous reconnaissance of Attu by aircraft and submarines will provide warning against such movements.

Submarines are a constant threat to TG 19.1 at sea. This threat may intensify in the vicinity of Attu, if submarines are assigned a mission to protect convoy(s), and in the replenishment area, if enemy intelligence permits submarines to concentrate in this area. TG 19.1 will continually maintain maximum antisubmarine precautions and utilize a screen unit of destroyer types at all times for the protection of the carriers and cruisers.

Mines pose a threat to TG 19.1 only in transiting the Aleutian Island chain. By selecting a wide pass with deep and swift currents, CTG 19.1 can reduce the mine threat to acceptable limits. Aircraft can scout the pass for floating mines and small surface units can make exploratory visual and sonar sweeps of the pass before the group transits.

The major threat to TG 19.1 operations will vary, depending on the area of operations and weather conditions. Probable limitations on air operations generate a requirement that CTG 19.1 provide for early warning under all weather conditions. CTG 19.2 will be requested to station a submarine off Komandorski and Attu to provide valuable information and render certain critical services.

Protection tasks to be accomplished by own forces can be stated as follows:

Tasks	Means
Provide anti-aircraft defense for carriers.	Support Unit
Provide antisubmarine screen for carriers and cruisers.	Screen Unit
Provide early warning.	Destroyers (pickets) Carrier aircraft

F.11.5 Intelligence. TG 19.1 must fulfill certain information requirements during the operation:

Tasks	Means
Obtain information on movements of naval units.	Submarines of TG 19.2 Aircraft of TG 19.1 and 19.3
Obtain information about construction progress on Attu.	Air photos by aircraft of TG 19.1 and 19.3

Obtain information concerning airpower on Komandorski.

Air photos by aircraft of TG 19.1
Submarine reconnaissance

CTG 19.1 must depend on submarines of TG 19.1 and long-range reconnaissance aircraft of TG 19.3 for information on the movement of convoy(s) transporting advanced base construction units to Attu. After TG 19.1's presence in the area is known, its aircraft could collect information up to a range of 1,100 miles; however, aerial reconnaissance operations will detract from offensive air operations. Full use will be made of TG 19.2's and TG 19.3's reconnaissance capabilities and measures will be taken to provide reliable detection capability when weather prohibits air operations from Kodiak and Dutch Harbor.

Information on the progress of base construction on Attu will require frequent aerial reconnaissance. Attu air defenses are not expected to prohibit use of long-range reconnaissance aircraft to collect information. However, there will be a considerable time delay in relaying the results of reconnaissance flights from Kodiak. Further, it may not be practicable to place a Kodiak-based plane over Attu during the short, unpredictable periods when weather will permit aerial photography. If TG 19.1 is covered by bad weather or does not wish to disclose its presence in the area, TG 19.3 could provide limited aerial reconnaissance of Attu.

Air defenses on Komandorski are too concentrated to permit reliable reconnaissance, except by TG 19.1's high-speed photographic aircraft. If aerial reconnaissance is necessary prior to the initial attack, long-range reconnaissance aircraft could procure such information without disclosing the force's presence in the area. Frequent photographic reconnaissance of Komandorski will be required throughout the operation.

CTG 19.2 and 19.3 have agreed to provide the necessary support. All tasks to be accomplished by own forces can be stated as follows:

Tasks	Means
Provide aerial reconnaissance.	Carrier Unit
Destroy enemy aircraft and air base facilities on Komandorski, base development on Attu, and convoy(s) en route Petropavlovsk to Attu.	Carrier Unit
Destroy base development on Attu and convoy(s) en route Petropavlovsk to Attu.	Surface Unit
Provide anti-aircraft defense for carriers.	Support Unit
Provide antisubmarine screen for carriers and cruisers.	Screen Unit
Provide early warning.	Destroyers (pickets) Carrier aircraft

F.11.6 Friendly Force Operations. The following friendly force operations are necessary for successful fulfillment of supporting tasks.

TG 19.2 North Pacific Submarine Group:

1. Provide intelligence on air activities in the vicinity of Komandorski.
2. Provide one submarine for lifeguard and navigation beacon in the vicinity of Komandorski and one in the vicinity of Attu.
3. Provide intelligence on enemy activities on Attu.

4. Provide intelligence on enemy ship movements from Petropavlovsk to Attu.

TG 19.3 North Pacific Air Patrol Group:

1. Provide intelligence on enemy ship movements from Petropavlovsk to Attu.
2. On request, provide intelligence on:
 - a. Base construction at Attu
 - b. Air strength and disposition at Komandorski.

TG 19.4 North Pacific Mobile Logistic Support Group:

1. Replenish TG 19.1, on an 8-day replenishment cycle in Area Mabel, commencing on about 13 June 198-.
2. Provide emergency repairs and towing.

Naval Base Kodiak:

1. On request, provide replacement aircraft and pilots.

Commander WHITE North Pacific Naval Forces (CTF 19) has provided for the above requirements in his operation order of 15 May 198-. CTG 19.4 has been notified of the logistic requirements and the intended replenishment area. CTG 19.2 and 19.3 have been informed of the intelligence requirements. The only additional request necessary is the specific assignment of submarines in the vicinity of Komandorski and Attu.

F.12 STEP 4 — DETERMINE HOW EACH COMPONENT OPERATION IS TO BE CARRIED OUT

F.12.1 General. In this situation, TG 19.1 will operate for the most part as one tactical unit. Therefore, some of the considerations involved

in the determination of how tasks will be carried out are common to all operations. The movement of forces, logistic support, and security requirements were covered previously. Therefore, the primary considerations to be discussed here are force requirements, coordination requirements between own and friendly forces, and support requirements from friendly forces.

F.12.2 Destroy Enemy Aircraft and Air Base Facilities on Komandorski — Carrier Units. To ensure neutralization of Komandorski airpower in a single day's operation, the attack aircraft of two carriers should be utilized. The use of both carriers will provide the necessary air cover for both the strike aircraft and surface forces.

The need for photo reconnaissance by TG 19.1 aircraft prior to strikes will depend on the completeness of the intelligence furnished by the submarines of TG 19.2. The air operations schedule and target lists will be promulgated upon receipt of this intelligence. In general, the following target priority pertains:

1. Fuel depots
2. Hangars, servicing, and maintenance facilities
3. Aircraft on the ground
4. Runways.

For this portion of the operation, TG 19.1 will operate intact, with cruisers and DDGs supplying close-in air defense and destroyers providing antisubmarine screening, radar pickets for early warning, and rescue destroyers for carrier air operations.

There are no unusual logistic problems. Standard armament loading for all ships will be adequate. CTG 19.1 will coordinate all logistic requirements.

All intelligence will be reported to CTG 19.1 and disseminated to the required units. Detailed procedures for intelligence reporting will be outlined in the Intelligence Annex.

F.12.3 Destroy Advanced Base Construction on Attu — Carrier Units. The initial action against Attu is to be conducted the day after the neutralization strikes on Komandorski. The tentative schedule will provide for initial air strikes (preceding the shore bombardment) against any combatants in the harbor and coastal defense installations. Subsequent air strikes will be launched against shipping in the area, piers, powerplants, construction equipment, personnel, and facilities.

The commander of the bombardment unit will act as coordinator for air and surface strikes on Attu. A bombardment schedule will detail the targets, assignments, and communications nets to be used.

Reattacks on construction units on Attu will be conducted as intelligence deems necessary, as ordered by CTG 19.1. Subsequent reattacks may require only one carrier.

F.12.4 Destroy Advanced Base Construction Units on Attu — Surface Units. The hydrography southeast of Attu will limit ship's approaches, reducing the effectiveness of bombardment by destroyers. This fact, plus the uncertainty of air operations, will necessitate the use of all cruisers for shore bombardment. The number of targets indicates the desirability of providing a minimum of 10 DDs to supplement the cruisers.

Surface forces may be required to accomplish this task without the support of air units. Therefore, a single target list will be promulgated for both units and priorities assigned for air and/or surface action. The commander of the bombardment unit will act as air and surface coordinator. The bombardment schedule will provide for air strikes to report to the coordinator prior to attack.

F.12.5 Destroy GREEN Convoy(s) En Route Petropavlovsk to Attu — Carrier Units, Surface Units. The primary means of destruction of the convoy(s) will be by air action; surface forces will be used as an alternate means, if the tactical situation permits. Therefore, the two will be considered together.

Defensive considerations make it desirable to maintain both carriers in the area of operations. This will not preclude the occasional return of one carrier to Kodiak for major resupply or to pick up replacement aircraft. Weather restrictions on air operations will dictate the maintenance of a minimum of two, and preferably three, cruisers with the carriers for possible surface action against enemy surface forces and convoy(s) and for air defense of the carriers. All available destroyers will be utilized for antisubmarine defense of heavy units and to provide early warning.

The use of surface units against the convoy(s) will depend on the tactical situation at the time. A surface unit of as many as 3 cruisers and 12 DDs/DDGs can be detached temporarily for action against convoy(s), provided enemy surface forces are not threatening the carriers. This is considered adequate.

Intelligence from friendly forces is critical for the successful accomplishment of this task. Intelligence received from the submarines of TG 19.2 and the patrol aircraft of TG 19.3 will be promptly evaluated and disseminated by CTG 19.1. The Intelligence Annex will outline procedures for intelligence reporting.

Logistic requirements should be normal, after the major replenishment following the strikes on Komandorski and Attu.

F.12.6 Provide Antisubmarine Screen — ASW Screen. Since the nature of this task is well covered by standard doctrine, little development is necessary. TG 19.1 has been assigned 12 DDs and 6 DDGs, which will

provide an adequate ASW defense, while the group is in normal cruising disposition. When detached surface action or shore bombardment is in progress, a minimum of 3 DDs/DDGs per carrier will be adequate for ASW protection. This will allow 12 DDs/DDGs to be detached temporarily for other missions.

Between replenishment, fuel levels of DDs will be maintained by periodic topping-off from carriers and cruisers as necessary. Details concerning fueling will be promulgated in the Logistic Annex.

F.12.7 Provide Antiaircraft Defense — Support Unit. The missile batteries of the cruisers and DDGs will provide a strong, close-in, air defense. Coordination of air and surface units employed in air defense will be in accordance with standard doctrine.

F.12.8 Provide Early Warning — Destroyers, Carrier Aircraft. The element of TG 19.1 forces assigned the task of providing early warning will be supplemented by friendly forces as previously discussed. Weather conditions dictate primary reliance on surface units for early warning. Six DDGs are available for this task.

With six AEW aircraft aboard the two carriers, continuous operations should be possible when weather permits air operations. Daily air operations schedules will detail the assignment of AEW missions.

The use of radar will be outlined in the EMCON Annex. Communication nets for both air and surface early warning will be specified in the Communication Plan Annex.

F.12.9 Provide Aerial Reconnaissance. Carrier photo aircraft will be used to supplement the intelligence from TG 19.2 and TG 19.3 for information on enemy naval and merchant units. Since the completeness of intelligence from these units is not predictable, the degree of aerial reconnaissance required from the

carrier units cannot be evaluated at this time. Photo aircraft aboard the carriers should be adequate to provide the reconnaissance necessary at Komandorski and Attu and for post-strike intelligence. The Intelligence Annex will detail the intelligence requirements. The daily air operations schedule will provide reconnaissance as the tactical situation dictates.

F.13 Step 5 — ORGANIZE FORCES INTO TASK ORGANIZATION

F.13.1 Forces Available

CARGRU 5	1 CV
CRUDESGRU 3	3 CG
DESRON 7	3 DDG
	1 FF
DESRON 31	3 FF
	1 FFG
DESRON 37	5 DD

F.13.2 Tentative Assignment of Forces

TU 19.1.1	Carrier Unit	RADM WB
	CARGRU 5	1 CV
	MIDWAY (CV-41)	
TU 19.1.2	Support Unit	RADM WG
	CRUDESGRU 3	3 CG
	GRIDLEY (CG 21)	
	HALSEY (CG 23)	
	JOUETT (CG 29)	

TU 19.1.3	Screen Unit DESRON 31	CAPT WC 1 FFG 3 FF
	DESRON 7	3 DDG 1 FF
	DESRON 37	5 DD
TU 19.1.4	Surface Action Striking Unit (When Formed)	RADM WG 3CG
	GRIDLEY (CG 21)	
	HALSEY (CG 23)	
	JOUETT (CG 29)	

F.13.3 Adjustment of Forces. The shortage of destroyer types during the period that the Surface Action Striking Unit is formed presents the most critical problem in the assignment of forces. A maximum of 12 destroyer types can be assigned to the Surface Action Striking Unit. To allow maximum flexibility in all operations, assignment of specific forces to this unit will be left to the OTC at the time of the unit's formation. No other adjustments are required in the assignment of forces.

F.14 STEP 6 — ASSIGN TASKS AND PREPARE AMPLIFYING INSTRUCTIONS

F.14.1 Assignments to Units. The Carrier Unit will be assigned all tasks listed above for carriers; the Support Unit, all tasks assigned cruisers; the Screen Unit, all tasks assigned destroyers; and the Surface Action Striking Unit, all tasks assigned cruisers and destroyers. These tasks are stated below in terms sufficiently broad to instruct subordinate unit commanders and still afford subordinates appropriate initiative.

CARRIER UNIT

1. Destroy aircraft and air base facilities on Komandorski Island.
2. Destroy convoy(s) en route to Attu Island and base development on Attu Island.
3. Conduct air reconnaissance.
4. Provide early warning.

SUPPORT UNIT

1. Provide anti-aircraft screen for Carrier Unit.
2. Join Surface Action Striking Unit when directed.

SCREEN UNIT

1. Provide antisubmarine defense.
2. When directed, detach 10 DDs and 2 DDGs to report to Commander Surface Action Striking Unit.
3. Provide rescue destroyers for Carrier Unit.
4. Provide early warning.

SURFACE ACTION STRIKING UNIT

1. Form when directed.
2. Destroy convoy(s) en route to Attu Island and base development on Attu Island.
3. Upon completion, rejoin and report to original unit commanders.

F.14.2 Common Instructions. The following common instructions are necessary to coordinate the actions of the task units:

1. This order is effective upon receipt.

2. Control of electronic emissions is in accordance with the EMCON Plan, Annex F.

3. Movement is in accordance with the Movement Plan, Annex B.

F.14.3 Logistic Support. Major aspects of logistic support essential to the operation are:

1. All units will load to capacity with fuel, ammunition, and provisions prior to departure from Kodiak.

2. Emergency repairs and replacement aircraft are available at Kodiak.

3. Underway replenishment will be conducted in accordance with the Logistic Plan, Annex D.

F.14.4 Detailed Guidance. Accomplishment of certain tasks requires detailed guidance and coordination. This can be effected in the Intelligence Plan, Annex E.

F.15 STEP 7 — SOLVE COMMAND PROBLEMS

F.15.1. Operation of Task Group. Task Group 19.1 will be operated as a Carrier Striking Group under the tactical command of RADM WB (ComCarGru 5), who will also command the Carrier Unit. Command and control will be decentralized through the appointment of task unit commanders. RADM WG (ComCruDesGru 3) will command the Support Unit. Captain WC, the senior destroyer squadron commander, will command the Screen Unit. The Surface Action Striking Unit will be commanded by RADM WG, who, as second senior officer, will also be second in command of the Task Group. Coordination with friendly forces will be exercised through the Task Group Commander.

F.15.2 Communication and Command Facilities. Adequate facilities are available in task unit flagships to exercise command under all

weather conditions envisaged. Special communication arrangements will be made with coordinate commanders. Communication instructions will be furnished in the Communication Plan, Annex C.

F.15.3 Area of Operations. The area of operations covers three time zones and includes the International Date Line. To avoid confusion, time plus eleven (XRAY) will be used throughout the operation.

F.16 STEP 8 — COMPILE INFORMATION FOR SUBORDINATES

The following general information is required by subordinate commanders for the intelligent understanding of the plan.

F.16.1 General Situation. The general situation is that GREEN has captured the WHITE Island of Attu and plans to construct naval and air bases there. Prevention of GREEN expansion in the North Pacific area is required to protect Alaska and the continental United States from sea or air attack.

F.16.2 Information on Enemy Forces

1. A large convoy and covering force are assembling at Petropavlovsk for the prospective buildup of Attu as an advanced naval and air base. At present, the covering force consists of approximately 6 cruisers and 36 destroyer types.

2. Approximately 11 submarines, based at Petropavlovsk, are operating in the area.

3. Extensive naval and air base facilities are located at Petropavlovsk with approximately 150 fighters, 40 medium bombers, and 12 patrol aircraft based in the area. Komandorski Island is an advanced fighter and light-bomber base with approximately 50 fighters and 50 light bombers.

4. Attu Island occupation forces number about 1,000 personnel. Defense and support

forces on Komandorski air base number approximately 3,000.

5. Detailed intelligence is contained in the Intelligence Plan, Annex E.

F.16.3 Information on Friendly Forces

1. Submarines of TG 19.2 will conduct reconnaissance missions and offensive war patrols in the Kamchatka-Kuriles area and will provide search and rescue and reconnaissance at Komandorski and Attu Islands.

2. Planes of TG 19.3 will operate from Kodiak and Dutch Harbor and provide long-range air reconnaissance.

3. Underway replenishment ships of TG 19.4 will provide logistic resupply in support of this operation.

4. A major naval and air base is located at Kodiak. A seaplane tender is located at Dutch Harbor.

F.17 THE DIRECTIVE AND ITS ANNEXES

This appendix shows a sample operation order and related material prepared in accordance with the instructions in Chapter 4. It includes:

Sample Operation Order Figure F-2

Sample Annex A, Concept of Operations Figure F-3

Sample Appendix 1 to Annex A Figure F-4

Sample Appendix 2 to Annex A Figure F-5

(SECURITY CLASSIFICATION)

Copy No: 1
 WHITE North Pacific Naval Forces
 TG 19.1, Carrier Striking Group,
 and ComCarGru 5
 MIDWAY (CV 41), Flagship
 KODIAK, ALASKA
 DTG: 301200X May 198 ____
 Message Ref: 005-8 ____

Operation Order
 ComCarGru 5 No. 2-8 ____

References: (a) HO Chart 523

Zone Time: Use zone time plus eleven (XRAY) for operations.

Task Organization:

- | | | | |
|----|-----------|--|---|
| a. | TU 19.1.1 | Carrier Unit
CarGru 5 | RADM WB
1 CV |
| b. | TU 19.1.2 | Support Unit
GRIDLEY (CG 21)
HALSEY (CG 23)
JOUETT (CG 29) | RADM WG
3 CG |
| c. | TU 19.1.3 | Screen Unit
DESRON 31

DESRON 7

DESRON 37 | CAPT WC
1 FFG
3 FF
3 DDG
1 FF
5 DD |
| d. | TU 19.1.4 | Surface Action Striking Unit
(When Formed)
GRIDLEY (CG 21)
HALSEY (CG 23)
JOUETT (CG 29) | RADM WG

3 CG |

(SECURITY CLASSIFICATION)

Figure F-2. Sample Operation Order for Problem (Sheet 1 of 4)

(SECURITY CLASSIFICATION)

Operation Order
ComCarGru 5 No. 2-8 _____

1. SITUATION. GREEN has captured the WHITE Island of ATTU and plans to construct naval and air operating bases thereon. Prevention of GREEN expansion in the NORTH PACIFIC area is required to protect ALASKA and other states of the UNITED STATES from sea or air attack.
 - a. Enemy Forces
 - (1) A large convoy and covering force are assembling at PETROPAVLOVSK for the prospective buildup of ATTU as an advanced naval and air base. At present the covering force consists of approximately 6 cruisers and 36 destroyer types.
 - (2) Approximately 11 submarines, based at PETROPAVLOVSK, are operating in the area.
 - (3) GREEN has extensive naval and airbase facilities at PETROPAVLOVSK with approximately 150 fighters, 40 medium bombers, and 12 patrol planes based in the area. KOMANDORSKI ISLAND has an advanced fighter and light bomber base with approximately 50 fighters and 50 light bombers.
 - b. Friendly Forces
 - (1) Submarines of TG 19.2 will conduct reconnaissance and offensive war patrol missions in the KAMCHATKA-KURILES area and will provide SAR and reconnaissance services at KOMANDORSKI and ATTU ISLANDS.
 - (2) Planes of TG 19.3, operating from KODIAK, will provide long-range air reconnaissance.
 - (3) Underway replenishment ships of TG 19.4 will provide logistic resupply in support of this operation.
 - (4) A major WHITE naval and air base is located at KODIAK.
 - c. Attachments and Detachments. None.
2. MISSION. Prevent the establishment of GREEN bases on ATTU ISLAND during the period 10 June 198__ through 1 September 198__ in order to avert GREEN expansion in the NORTH PACIFIC area.
3. EXECUTION. This force will interdict the sea line of communication from PETROPAVLOVSK to ATTU ISLAND and neutralize GREEN base development on ATTU ISLAND by air and surface action.
 - a. Carrier Unit
 - (1) Destroy enemy aircraft and air base facilities on KOMANDORSKI ISLAND.
 - (2) Destroy enemy convoy(s) en route to, and base development on, ATTU ISLAND.
 - (3) Conduct air reconnaissance.
 - (4) Provide early warning.

(SECURITY CLASSIFICATION)

Figure F-2. Sample Operation Order for Problem (Sheet 2 of 4)

(SECURITY CLASSIFICATION)

Operation Order
ComCarGru 5 No. 2-8 ____

- b. Support Unit
 - (1) Provide antiaircraft defense.
 - (2) Join Surface Action Striking Unit when directed.
 - c. Screen Unit
 - (1) Provide antisubmarine defense.
 - (2) When directed, detach 10 DD and 2 DDG to report to Commander Surface Action Striking Unit.
 - (3) Provide rescue destroyers for Carrier Unit.
 - (4) Provide early warning.
 - d. Surface Action Striking Unit
 - (1) Form when directed.
 - (2) Destroy enemy convoy(s) en route to, and base development on, ATTU ISLAND.
 - (3) Upon completion rejoin and report to original unit commanders.
 - x. Coordinating Instructions
 - (1) This order is effective upon receipt.
 - (2) Control electronic emissions in accordance with EMCON Plan, Annex F.
 - (3) Movement in accordance with Movement Plan, Annex B.
4. ADMINISTRATION AND LOGISTICS
- a. Load to capacity with fuel, ammunition, and provisions prior to departure from KODIAK.
 - b. Emergency repairs and replacement aircraft are available at KODIAK.
 - c. Conduct underway replenishment in accordance with Logistic Plan, Annex D.
5. COMMAND AND SIGNAL
- a. Communications in accordance with Communication Plan, Annex C.
 - b. RADM WG, Commander Support Unit, in GRIDLEY (CG 21), second in command.

(SECURITY CLASSIFICATION)

Figure F-2. Sample Operation Order for Problem (Sheet 3 of 4)

(SECURITY CLASSIFICATION)

Operation Order
ComCarGru 5 No. 2-8 _____

- c. Commander Attack Carrier Striking Group. Officer in Tactical Command, in MIDWAY (CV 41).

Acknowledgment Instructions

Units listed in Task Organization acknowledge receipt of this Order by message.

WB (Signature)
Rear Admiral, WHITE Navy
CTG 19.1, Carrier Striking Group, and ComCarGru 5

Annexes

- A - Concept of Operations
- B - Movement Plan (Not Shown)
- C - Communication Plan (Not Shown)
- D - Logistic Plan (Not Shown)
- E - Intelligence Plan (Not Shown)
- F - EMCON Plan (Not Shown)

Distribution

By Guard Mail to:

- | | |
|--|------|
| Carriers (12 each) | (24) |
| Cruisers (8 each) | (24) |
| Destroyers (4 each) | (48) |
| Guided Missile Destroyers (5 each) | (30) |
| ComCruDesGru 3 | (5) |
| ComDesRons (3 each) | (6) |
| ComAirWings (10 each) | (20) |
| Commander Naval Base Kodiak | (5) |
| Commander North Pacific Naval Forces | (5) |
| Commander North Pacific Submarine Group | (5) |
| Commander North Pacific Reconnaissance Group | (5) |
| Commander North Pacific Logistic Support Group | (5) |

By Registered Airmail to:

- | | |
|----------------------------------|------|
| Commander-in-Chief Alaskan Area | (5) |
| Commander-in-Chief Pacific Fleet | (5) |
| Chief of Naval Operations | (10) |

(SECURITY CLASSIFICATION)

Figure F-2. Sample Operation Order for Problem (Sheet 4 of 4)

(SECURITY CLASSIFICATION)

(Optional)
 WHITE North Pacific Naval Forces
 TG 19.1, Carrier Striking Group,
 and ComCarGru 5
 MIDWAY (CV 41), Flagship
 KODIAK, ALASKA
 DTG: 301200X May 198 ____
 Message Ref: 005-8 ____

Operation Order
 ComCarGru 5 No. 2-8 ____

ANNEX A

Concept of Operations

1. DECISION

a. This force will interdict the sea line of communication from PETROPAVLOVSK to ATTU and neutralize GREEN base development on ATTU by air and surface action.

b. Limiting factors:

- (1) Weather interference with flight operations
- (2) Uncertain intelligence or enemy movements

2. SUPPORTING OPERATIONS OF FRIENDLY FORCES

a. Aircraft of TG 19.3 will provide daily reconnaissance of the sea approaches to ATTU.

b. Submarines of TG 19.2 will conduct reconnaissance and offensive war patrols in the KAMCHATKA-KURILES ISLANDS area and will provide rescue and reconnaissance services in the vicinity of KOMANDORSKI and ATTU ISLANDS. A maximum delay of 12 hours in the receipt of information may be expected.

c. Ships of TG 19.4 will provide underway replenishment.

(SECURITY CLASSIFICATION)

Figure F-3. Sample Annex A Concept of Operation for Problem (Sheet 1 of 2)

(SECURITY CLASSIFICATION)

Operation Order
ComCarGru 5 No. 2-8 ____

3. PHASES OF ACCOMPLISHMENT

a. Preliminary Operations. This group will depart KODIAK on 7 June 198__ and proceed via AMUKTA PASS to arrive at POINT HARLEM, (Latitude $56^{\circ}30'$ N, Longitude 170° E) at dawn 9 June 198__. Air strikes will be conducted on 9 June 198__ to neutralize GREEN airpower on KOMANDORSKI ISLAND. The group will then proceed toward POINT RUGGED, (Latitude 54° N, Longitude $173^{\circ}30'$ E). The Surface Action Striking Unit will form on signal about 001X 10 June 198__, proceed independently to ATTU, and commence shore bombardment of GREEN shore installations and base facilities at dawn 10 June 198__ in conjunction with carrier air strikes launched from POINT RUGGED. On signal, the group will re-form and proceed to the southwest section of AREA MABEL (area between Latitudes 55° N and 60° N and Longitudes 176° E and 170° W) for replenishment.

b. Gaining the Objective. Following replenishment, the group will return to the vicinity of POINT RUGGED on 15 June 198__ to conduct operations against GREEN convoy(s) en route to ATTU and base development on ATTU. Periodic raids will be conducted against KOMANDORSKI and ATTU ISLANDS to gain intelligence and prevent major repairs or buildup of these bases.

(Optional)
WB (Signature)
Rear Admiral, WHITE Navy
CTG 19.1, Carrier Striking Group, and ComCarGru 5

Appendixes

I--Radius of GREEN Air Operations

II--Reference HO Charts and Publications

Authentication: (Optional)

XY (Signature)

Commander, WHITE Navy

Flag Secretary

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Figure F-3. Sample Annex A Concept of Operation for Problem (Sheet 2 of 2)

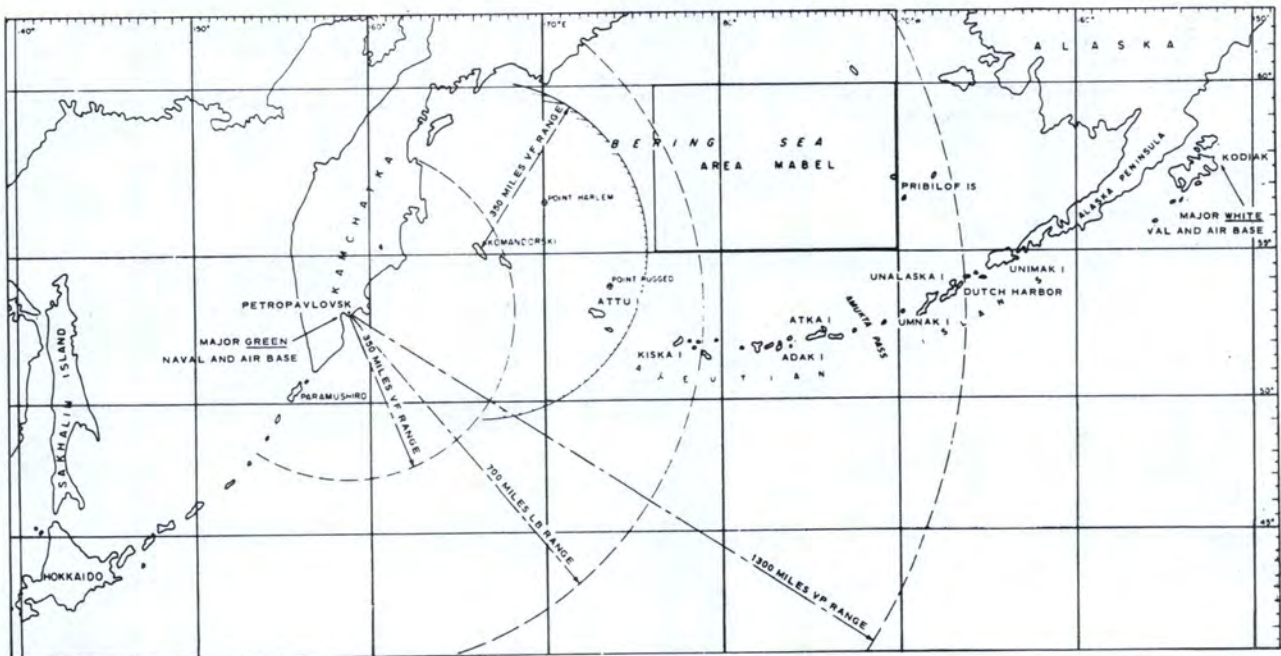
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Operation Order
ComCarGru 5 No. 2-8 _____

(Optional)
WHITE North Pacific Naval Forces
TG 19.1, Carrier Striking Group,
and ComCarGru 5
MIDWAY (CV 41), Flagship
KODIAK, ALASKA
DTG: 301200X May 198 _____
Message Ref: 005/8 _____

Appendix I to Annex A

Radius of GREEN Air Operations



(Optional)
WB (Signature)
Rear Admiral, WHITE Navy
CTG 19.1, Carrier Striking Group, and ComCarGru 5

Authentication: (Optional)
XY (Signature)
Commander, WHITE Navy
Flag Secretary

(SECURITY CLASSIFICATION)

Figure F-4. Sample Appendix I to Annex A for Problem

(SECURITY CLASSIFICATION)

Operation Order
ComCarGru 5 No. 2-8 _____

Appendix II to Annex A

Reference HO Charts and Publications

- (a) HO Chart 523
- (b) HO Chart 54
- (c) HO Chart 532
- (d) Sailing Directions No. 97
- (e) Sailing Directions No. 98
- (f) HO Pilot Chart 55
- (g) U.S. Coast Pilot 8
- (h) U.S. Coast Pilot 9

Authentication:
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Flag Secretary

(SECURITY CLASSIFICATION)

Figure F-5. Sample Appendix II to Annex A for Problem

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Original	5 thru 17 (Reverse Blank)
Original	19 (Reverse Blank)
Original	21 thru 45 (Reverse Blank)
Original	1-1 thru 1-6
Original	2-1 thru 2-28
Original	3-1 thru 3-18
Original	4-1 thru 4-19 (Reverse Blank)
Original	5-1 thru 5-3 (Reverse Blank)
Original	47 (Reverse Blank)
Original	6-1 thru 6-7 (Reverse Blank)
Original	7-1 thru 7-5 (Reverse Blank)
Original	8-1 thru 8-12
Original	9-1 thru 9-7 (Reverse Blank)
Original	10-1 thru 10-4
Original	49 (Reverse Blank)
Original	11-1 thru 11-4
Original	12-1 thru 12-4
Original	13-1 thru 13-4
Original	14-1, 14-2
Original	51 (Reverse Blank)
Original	15-1 thru 15-4
Original	16-1 thru 16-3 (Reverse Blank)
Original	17-1 thru 17-12
Original	18-1 thru 18-18
Original	19-1 thru 19-4
Original	20-1 thru 20-5 (Reverse Blank)
Original	53 (Reverse Blank)
Original	21-1 thru 21-4
Original	55 (Reverse Blank)
Original	22-1 thru 22-3 (Reverse Blank)
Original	23-1 thru 23-3 (Reverse Blank)
Original	A-1 thru A-36
Original	B-1 thru B-16
Original	C-1 thru C-28
Original	D-1 thru D-42
Original	E-1, E-2
Original	F-1 thru F-40
Original	Index-1 thru Index-10
Original	LEP-1 (Reverse Blank)

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