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**Operation Sea Angel;
A Retrospective on the 1991 Humanitarian
Relief Operation in Bangladesh**

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PREFACE

PURPOSE. OPERATION SEA ANGEL, the humanitarian relief operation in Bangladesh from 11 May to 13 June, 1991, was an extremely successful manifestation of the capability of U.S. Armed Forces to react quickly and decisively to a situation requiring the use of military and naval forces in a non-traditional manner. It also represented a number of firsts in the evolution of joint doctrine. It was the first time a joint task force deployed operationally to a site where there was no adequate local infrastructure capable of accepting and sustaining a technologically sophisticated U.S. presence; this caused the operation to be primarily seabased. In addition, it represented the first use of a Marine Air Ground Task Force (MAGTF) as a joint task force nucleus.

SEA ANGEL was also characterized by the creation of an ad hoc naval coalition consisting of U.S., British, Japanese, and Bangladeshi forces to handle the extent of the disaster as well as by very successful cooperation between U.S. forces, the civil government, the Bangladesh military, and non governmental relief organizations such as CARE and the Red Crescent. If the intent of the proposed U.S. Military Strategy for the 1990's becomes reality, the U.S. will have far fewer fixed bases overseas in the future from which to operate. This will mean an ever increasing role for seabased naval expeditionary forces acting in a manner similar to those utilized in OPERATION SEA ANGEL.¹ Given the

success of the operation and many precedent setting events that occurred during the month that Joint Task Force Sea Angel existed, this study was conducted in order to extract conclusions that might be helpful to future planners faced with similar situations.

OBJECTIVES. This report will attempt to examine key lessons learned during the operation that would be pertinent in planning for similar operations in the future, and to identify any outstanding doctrinal or equipment requirements. The study contains seven chapters examining broad topics as listed below:

- An overview of the operation
- Training and organizing for the two tiered command and control concept which will be CINCPAC's preferred method of dealing with regional crisis situations in the future
- Civil-military relations in humanitarian relief operations
- Use of sea based forces as the focus of main effort
- The challenges of ongoing assessment
- Public affairs in humanitarian assistance/disaster relief operations
- Observations concerning the future of humanitarian assistance/disaster relief operations.

FORMAT. This report will briefly outline the chronology of events that led to U.S. involvement and the subsequent conduct of the operation. It will then go into a detailed examination of

the functional areas listed in the previous paragraph. Finally, it will outline conclusions and recommendations.

CHAPTER 1

OPERATIONAL OVERVIEW

EVENTS LEADING UP TO U.S. INVOLVEMENT. "In late April, 1991, a tropical storm began brewing in the Bay of Bengal. This storm, named Cyclone 02B by meteorologists, picked up speed and power quickly. On April 28th (April 29th Hawaii time), Cyclone 02B slammed into the Chittagong-Cox's Bazaar coast of Bangladesh." ²

By the best government estimates, up to 138,000 lives were lost and 2.7 million people were rendered homeless. Most of these were indigent squatters who farm the mud flats in the Bay of Bengal stretching out from the Bangladesh coast. Few of the islands are more than a meter above sea level making them particularly vulnerable to tidal surges. One massive surge threw a wall of water twenty feet high at the Bangladesh coast of the Bay of Bengal. It was this event that caused the majority of the mortality. Figure 1 is a sketch map of the disaster area.

Although not a true tidal wave in the seismic sense of the word, the tidal surge had much the same effect. The port of Chittagong and much of the Bangladeshi Navy were destroyed, hundreds of square miles of farmland and fish hatcheries were inundated, and over 100,000 head of livestock were killed.³ In addition, many miles of earthen seawall were breached making the coast further vulnerable to normal sea swells from the Bay of

Bengal.⁴

By 11 May, a request for assistance had been received in Washington from the newly elected civilian government of Bangladesh. Upon approval of this request by the National Command Authority, the Chairman of the Joint Chiefs of Staff tasked USCINCPAC with executing OPERATION PRODUCTIVE EFFORT (the name was later changed to OPERATION SEA ANGEL).⁵

A BRIEF SUMMARY OF OPERATION SEA ANGEL. On Friday, 10 May (9 May Washington time), the staff of III Marine Expeditionary Force at Camp Courtney on Okinawa in Japan began receiving indications via the staff of Fleet Marine Force Pacific in Hawaii that III MEF was one of the candidates being considered as the Joint Task Force (JTF) nucleus for OPERATION PRODUCTIVE EFFORT (SEA ANGEL). The estimate was that deployment could come within the next twenty-four hours. At the time, the Commanding General, Major General H.C. Stackpole was in the Philippines attending the Seventh Fleet planning conference as was his G-3 (Deputy Chief of Staff for Operations and Training). Accordingly, the Chief of Staff and Operations Officer conferred and agreed to form a planning cell in order to follow the situation as it developed and keep the Commanding General informed as events unfolded. The Operations Officer, in conjunction with representatives from the G-2(Intelligence), G-4(Logistics), and G-6 (Communications) sections began to develop a series of deployment options based on

possible missions; these options were expressed as modules, and a "building block" approach was employed to give maximum flexibility in tailoring the force once a specific mission was identified. This process continued throughout the day based on sketchy information from the Country Team; all voice communications with Bangladesh were disrupted, and the only communication was by record traffic (teletype) via the U.S. Embassy communications section in Dhaka, the capital of Bangladesh. Given the unknowns concerning condition of the remaining infrastructure and the status of host nation ability to support even an assessment effort, the staff developed a worst case package that would include a survey and reconnaissance party, satellite communications capability, limited organic transportation, and a reverse osmosis water purification capability. The theory was that this package could be downsized as the situation clarified with further information. By 1800, the staff was receiving indications that Commander, Seventh Fleet would receive the designation of JTF Commander; the staff still expected some III MEF involvement, but until that was clarified, about all that could be done had been done from a planning standpoint.⁶ At approximately 0300 the next morning (11 May), the G-3 called the Operations Officer from the Seventh Fleet flagship in Subic Bay R.P. to inform him that the Commander in Chief of the Pacific Command (USCINCPAC) had designated CG III MEF as the Joint Task Force Commander. Initial elements were to be prepared to board Air Force transports as early as 1200 local

(Japan time) from Kadena AFB on Okinawa to go to Bangladesh to assess the situation. Major General Stackpole would leave Subic Bay immediately to meet the staff at Camp Courtney and the staff was to be prepared to brief him as to preparations upon his arrival.⁷

The staff quickly assembled; by the time the CG arrived on Okinawa, they were prepared to brief him on options for forming the initial survey and reconnaissance party. By the time the CG arrived, the staff had been in contact with the USCINCPAC Crisis Action Team as well as the airlift staffers at Kadena. One C-141 would be available for the Surveillance and Reconnaissance party by 1800 that evening. It had also been ascertained that limited ground and helicopter transport would be available for the initial party. Given that information, the Joint Task Force Commander decided to go with a very small advance party until the actual situation on the ground could be ascertained. He directed that the party be limited to not more than thirty personnel. The MEF G-3 would initially act as JTF Chief of Staff and the Operations Officer would serve as J-3 (Deputy for Plans, Policies and Operations). It was determined that the designated Chief of staff would remain behind to bring in the rest of the staff approximately twenty-four hours after the advance party. The G-3 of the Third Force Service Support Group (FSSG) would serve as J-4 (Deputy for Logistics). A deliberate decision was made to keep the intelligence section small due to the low threat profile.

Commander Amphibious Group One offered several personnel including his N-3 (Operations Officer) who would eventually serve as J-3 during the latter stage of the operation. Upon the arrival in Bangladesh of the JTF augmentation cell from the CINCPAC staff in Hawaii, the plan was to create a staff with a true joint flavor.⁸ The operation was initially called **PRODUCTIVE EFFORT** with the JTF designated as JTF **PRODUCTIVE EFFORT**.

Upon making these decisions, the Commander dismissed the staff to make preparations. These included preparations of mount out boxes and field chests which would hold critical supplies and office equipment for operating in an expeditionary environment as well as shot updates and the myriad of other preparations necessary for a short notice deployment. Relatively few adjustments had to be made to the standing III MEF preloaded mount out kits maintained by each staff section except that reference material associated with specific contingencies normally anticipated by the MEF staff was replaced by material more suited for a Joint Task Force Headquarters managing a joint operation. The staff quickly ascertained that very little in the way of joint doctrine existed concerning humanitarian relief operations. Consequently the staff took an extensive file on **OPERATION PROVIDE COMFORT**, the ongoing relief operation for the Kurds on the Turkish-Iraqi border. By 1800 that evening (May 11), all twenty eight personnel of the Survey and Reconnaissance

(Advance) Party were staged at Kadena AFB for takeoff.⁹

At 2100, the C-141 carrying the Advance Party left Kadena with a scheduled stop at Utapao Thailand. While refueling at Utapao, there was a period of considerable consternation concerning overflight rights for Burma and India caused by the short notice, emergency nature of the mission and the fact that it happened on a week end. CJTF decided to press on and handle any challenges by announcing the humanitarian nature of the mission. The flight proceeded on to the Bangladesh capital of Dhaka at approximately 0900, 12 May without further incident. Upon arrival at Dhaka, the party was greeted by the U.S. Ambassador, William Milam and members of the country team as well as Government of Bangladesh delegation to include the Minister for Disaster Relief and the Army Vice Chief of Staff.¹⁰

Ambassador Milam's staff provided an overview brief at a breakfast meeting immediately after landing to the commander and JTF primary staff while the rest of the advance party set up temporary housekeeping in a house rented by the U.S. Embassy in outskirts of Dhaka relatively close to the embassy compound. During this period satellite communications were established with CINCPAC in Hawaii and III MEF on Okinawa via a PSC-3 portable system.

As the day wore on, the staff began to develop a picture of

the situation on the ground that proved to be largely accurate in developing the initial assessment for the CINC. Key points are as listed below:

- The most pressing problem faced by the relief operation was one of distribution. Food supplies in government storehouses or "Go Downs" and in the warehouses of non-governmental relief organizations such as CARE and the Red Crescent were adequate to meet emergency needs; the problem was one of distribution. The inundation of roads and the destruction of the ferry system had effectively cut off land and sea communications with the port city of Chittagong, which was the effective center of mass of the disaster area, and the capital 120 miles to the north. Once food and relief supplies reached Chittagong, there was an additional problem of getting it to the outlying coastal islands where the population was suffering the most.¹¹

- There was no effective tradition of intergovernmental cooperation in the country as yet. Non-Governmental Organizations (NGO's) felt obliged to provide their own transportation and distribution system under normal circumstances, and they did not yet fully trust the military which had just given up martial law two months before the storm hit. In addition, the traditional government bureaucracy which controlled the grain supply in the Go Downs was reluctant to hand over control to other

agencies. Finally, the newly elected civilian government was facing its first crisis within two months of taking power. Prime Minister Zia and her cabinet were struggling heroically with a problem of monstrous proportions.¹²

- The JTF would need all help from all of these governmental and non-governmental agencies in order to develop an effective distribution system. The NGO's and the Ministry of Food controlled the actual supply of food and other relief supplies. The military was needed to provide local security at distribution points as CJTF wanted, at all cost, to avoid confrontations between U.S. personnel and desperate, starving villagers. Finally, it was considered vital that the elected civilian government be visibly in charge of the relief effort. To this end, a coordination mechanism had to be created to get all agencies involved working together toward a common end.¹³

Based on the results of meetings with the Country Team, Bangladesh officials, and preliminary meetings with representatives from the NGO's, the commander and his staff met on the evening of the 12th to make a preliminary assessment of the situation and present an initial game plan to the CINC. By this time elements of the First Battalion, First Special Forces Group (Airborne) (USA) had arrived from Okinawa aboard two MC 130 aircraft. Their commander was designated as the Special

Operations Component Commander and attended the meeting.¹⁴

As noted earlier, the staff agreed that the problem facing the JTF was primarily one of distribution. The problem was twofold. First, food and supplies had to be moved from Dhaka to Chittagong. Once this was done, there was a second problem of getting the material to the outlying locations; this was particularly true of the mud flat islands such as Sandwip, Katubdia, and South Hatia. The preliminary course of action chosen was to fly the supplies from Dhaka to Chittagong by fixed wing aircraft and deliver them to the islands by helicopter. The problem was to resolve the origin of the aircraft. There was a fairly easy short run solution to the problem of the origin of the fixed wing aircraft as the two MC-130's which carried the original Special Operations Contingent would remain available until regular Air Force C-130's with a greater payload capacity could arrive. The helicopter situation also had a short term and a long term fix. Five Blackhawk helicopters from the 4-25 Aviation Brigade were enroute along with the JTF augmentation cell from Hawaii. These would be the primary helicopter platforms until the arrival of an Amphibious Task Force (Amphibious Group Three) carrying the 5th MEB and its twenty eight associated helicopters arrived on 15 May. Upon the arrival of the ATF, the 5th MEB would be designated as the focus of main effort and would remain seabased to reduce the impact of the JTF on the fragile infrastructure of the Chittagong area which had

itself been severely damaged by the storm. CINCPAC was updated as to the commander's plan, but CJTF wanted to wait until he had made an on scene visit to the disaster area to submit a campaign plan to the CINC for approval. This visit was scheduled for the following day (Monday, May 13). Later that evening, the JTF augmentation cell arrived from Hawaii. This cell included the designated deputy, Colonel George Hoffman, USAF. (Col. Hoffman was also dual hatted as the Air Force Component Commander). As the staff continued to grow, it became obvious that a larger headquarters would have to be found; this became a primary task for the Headquarters Commandant and the logisticians.¹⁵

At 0800 the next morning, the staff boarded two of the Bangladesh Air Force's remaining UH-1 helicopters for a tour of the disaster area. Stops included Chittagong Airfield, Sandwip, Kutubdia, South Hatia, and Moheshkhali. The party was sobered by the extent of the disaster. CJTF was accompanied by Brigadier Shaffat and Brigadier Ibrihim of the Bangladesh Army. These two energetic officers served as the nucleus of the civil-military Crisis Action Team formed by the Bangladesh government to manage relief efforts. Headquartered in the Presidential Secretariat building in near the old international airfield outside of Dhaka, this team would also host the daily interagency coordination meetings which would oversee combined relief efforts. In addition, a tentative headquarters site was identified at the old airfield outside of Dhaka in an unused Bangladesh Air Force

barracks. Working support agreements were drawn up between U.S. and Bangladesh logisticians. It was decided that the house originally containing the JTF headquarters would be retained as the press headquarters because international media were showing great interest in the operation. Major General Stackpole was eagerly awaiting the arrival of his Public Affairs Officer who had been attending a conference in Hawaii when the operation began. In the interim, the general was using his staff secretary as an interim press officer.¹⁶

Following the tour of the disaster sites, another staff meeting was conducted. Based on his observations, CJTF had decided to split the staff between Chittagong and Dhaka. Colonel Steve Lindblom, G-3 of III MEF would remain in Dhaka as JTF Chief of Staff with Lieutenant Colonel Gary Anderson acting as the J-3. Air Force Colonel Mike Fergeson would act as Chief of Staff at the JTF forward in Chittagong with Navy Captain Ed Anglim of PHIBGRU 1 as the J-3(FORWARD). Major General Stackpole and Colonel Hoffman would rotate between Dhaka and Chittagong so as to provide constant command presence.¹⁷

Based on this plan, an assessment message was prepared as an update for the CINC. At this point, the only voice link to Okinawa and Hawaii was the PSC-3 that had accompanied the advance party. Hard copy message traffic was accomplished through the U.S. Embassy message center. CJTF was eagerly awaiting the stand

up of the task force communications links which would be established at the new command post when elements of the Fourth Combat Communications Group arrived on 16 May.¹⁸

By Tuesday, 14 May, the elements of the Task Force had established themselves in Chittagong. These included Special Forces personnel from the 1st of the 1st (Special Forces Battalion) Damage Assistance Relief Teams (DART) which positioned themselves at key locations to continue ongoing assessment efforts and begin local disaster relief efforts. In addition, the remainder of the III MEF command element personnel arrived as did members of various Army Civil Affairs Organizations which were integrated into the J-3 section.¹⁹ The J-3 plans cell continued work on the campaign plan which was envisioned as having three phases:

-Phase 1: Immediate efforts to stabilize life threatening situations. (one week)

-Phase 2: Limited efforts to restore the infrastructure in such a way as to allow the Bangladesh government to eventually take full control of relief efforts. (two weeks)

-Phase 3: Preparations for U.S. withdrawal and the actual assumption of full control of relief efforts by the Government of Bangladesh. (one week)²⁰

In drawing up the campaign plan, the planners fully realized that the transition from phase to phase would not be clean and

that it would differ from area to area. They were also careful to include the commander's guidance to avoid having U.S. force involved in the disposal of human bodies or animal carcasses in order to avoid offending the sensibilities of the locals. The commander also wanted to ensure that U.S./subordinate commanders did not engage in activities with open ended, long term implications such as major building projects which would go beyond the JTF's charter for conducting life sustaining operations.²¹ Figure 2 outlines the eventual troop list as it evolved.

The plans cell also prepared fragmentary orders which directed the Special Forces aircraft (MC-130s) to begin ferrying food and relief supplies to Chittagong and further directing the five Army helicopters to begin the delivery of those supplies from Chittagong to the outlying areas. Upon the arrival of the ATF, 5th MEB would become the focus of main effort using its 28 helicopters with the ATF in support of the effort by providing the amphibious sea base.²²

The plan called for the Air Force Component to assume responsibility of ferrying supplies from Dhaka to Chittagong from the Special Operations component once regular Air Force C-130's arrived to replace the MC 130's. In addition, Air Force specialists were tasked to do airfield assessments in Chittagong, Dhaka, and Cox's Bazaar to determine their load bearing

capabilities.²³

Meanwhile, the J-3 was working with the Government of Bangladesh (GOB) crisis action cell and the NGO's to build a national level coordination committee to place priorities on the relief effort. The S-3 in Chittagong was tasked with the same responsibility at the local level. The first meeting of the national committee was conducted on 15 May to set priorities for the following day. These meetings continued on a daily basis until 28 May when it was determined that adequate supplies had been delivered to Chittagong and that further meetings would be conducted as needed. The committee was chaired by Brigadier Shaffat. Attendees included U.S. representatives from the JTF and AID, GOB military, GOB Civil agencies, CARE, the Red Crescent, and other local Bangladesh NGO's.²⁴

Upon the arrival of the ATF and the MEB on 16 May, full scale relief efforts commenced. These efforts were soon augmented by HMS Fort Grange (a United Kingdom supply ship with four helicopters). The Japanese also sent a contingent of two small helicopters by transport aircraft. Both the British and Japanese integrated themselves into the task force by providing liaison personnel in the C.P. at Chittagong where they accepted taskings as assigned by the coordination cell. The Japanese generally flew missions suited to the utility nature of their small aircraft while the British generally handled the area

around Moheshkheli where their Sea King helicopters and small boats were particularly effective.²⁵ The Indians and Chinese did not formally subordinate their helicopters to the JTF effort, but informal agreements were reached in which they covered certain geographical areas when other U.S. and allied assets were otherwise employed. This paralleled the U.S. experience in the Gulf where there were varying degrees of participation in the coalition.

The 28 helicopters of the ATF/MEB, in conjunction with the four LCACs handled the bulk of local distribution of food and medical supplies in the area of Chittagong, Sandwip, Kutubdia and Moheshkheli while selected medical teams and other asset of the MEB came ashore as required to support the overall relief operation.

DART teams from the special operations component continued to be strategically located to provide on-scene assessment. The JTF Surgeon also made periodic assessment trips in order to gauge the need for U.S. medical support in various locations. In areas where the water supply was particularly hard hit, Reverse Osmosis Water Purification Units (ROWPUs) were established ashore.

During the second week of the operation, the system had settled into an efficient routine. Vice President Quayle's wife Marilyn visited the disaster area as did numerous Bangladeshi

officials to include the Prime Minister and Minister of Defense. In addition, the Operation was redesignated as **OPERATION SEA ANGEL** as a result of news reports in which Bangladeshi's referred to the members of the Task Force as "angels from the sea". The Task Force was formally redesignated as JTF SEA ANGEL as well.

The JTF commander realized that the three phases of the campaign were being culminated at different times in different locales.²⁶ It was not possible to characterize the entire operation exactly into any given phase at any given time. However, there was a general consensus that the third phase (transition back to a primarily Bangladeshi effort) would be reached by 28 May upon departure of the ATF. USS ST. LOUIS (an attack transport or amphibious cargo ship) was dispatched to arrive in local Bangladesh waters as the ATF departed to act as an interim platform during phase III. She had aboard Marine Air Ground Task Force 2-91 configured as a humanitarian relief organization with a large number of ROWPUs embarked to act as a partial replacement for the ATF. This was a prudent precaution as another large cyclone barely missed the disaster area upon the task force's departure.

The departure of the ATF signaled the beginning of the draw down of the task force. By 13 June, General Stackpole and the rear party were ready to depart.

Overall, the SEA ANGEL Operation generated 194 fixed wing and 2101 helicopter aircraft sorties carrying 2430 and 1850 tons of food and relief supplies respectively while LCACs and other surface craft delivered 1526 tons to outlying areas.²⁷

The effort was probably best summed up by the U.S. Ambassador to Bangladesh, William Milam who wrote, "The superior organization and efficiency of Joint Task Force Sea Angel and the professional competence of its members, as well as their unfailingly sympathetic behavior on foreign soil, brought great credit to our services, to themselves, to our mission, and to our country."²⁸

CHAPTER 2
TRAINING FOR THE TWO-TIERED
COMMAND CONTROL CONCEPT

THE CONCEPT. Soon after assuming duty as CINCPAC, Admiral Charles Larson shared his command philosophy with his staff. He stated that he believed that the majority of contingency situations that would be faced by the Pacific Command in the future would likely occur in areas outside existing subunified command areas of responsibility; therefore, most of these situations would likely be handled by contingency joint task forces.²⁹ Admiral Larson further stated a preference for building these joint task force staffs around the nucleus of existing operational commanders and their staffs in order to utilize the existing operational expertise in-theater. He further stated that he desired to use members of the CINCPAC staff to augment these CJTF nucleus staffs to give them a suitably joint orientation for the duration of the contingency operation. Admiral Larson was continuing a program originally designed by his predecessor, Admiral Huntington Hardisty during his tenure at PACOM. Together, the two-tiered command and control system and the joint augmentation cell concept made up the operational framework within which both operations SEA ANGEL and FIERY VIGIL (the Philippine volcano evacuation and relief operation) were conducted. This chapter will examine the lessons learned from the Sea Angel experience with the objective of

attempting to make some recommendations for future training of both the CJTF nucleus staffs and the Joint Augmentation Cell.

UNIQUE ASPECTS OF SEA ANGEL. Both Operations SEA ANGEL and FIERY VIGIL occurred before the training aspects of the Larson/Hardisty vision could be fully implemented. The concept had been used during one no-notice JCS exercise in the summer of 1990 and other exercises were envisioned for late 1990 and 1991.³⁰ Events in South West Asia and CINCPAC's support of the war effort interrupted this plan somewhat, and Operation SEA ANGEL occurred before CG III MEF and his staff could be fully implemented. In addition, when the cyclone struck Bangladesh, many members of the JTF augmentation cell were in Thailand on a training exercise. This was fortunate that the members of the cell were reasonably close to the disaster site, but the drawback was that the entire cell was not present.³¹

The shortfall in training between III MEF and the JTF Augmentation Cell was largely overcome by several fortunate circumstances. First, the III MEF staff was highly experienced. It had been working together as a group for nearly a year and had participated in support for the DESERT SHIELD augmentation as well as two key joint exercises, KEEN EDGE and TEAM SPIRIT. It included an unusually high percentage of former commanders at the battalion/squadron and group/regiment levels. Major General Stackpole had been in command for nearly two years and brought

with him a high degree of joint experience.³²

Another fortunate factor was the relatively high level of training of the joint augmentation cell. The cell had been working and training together for some time, and their deployment to Thailand made them ready for quick redeployment to Bangladesh at relatively short notice.³³

Despite the high degree of success enjoyed during Operation SEA ANGEL, most participants agreed that a solid joint training program would help immensely in preparing for future CJTF operations.

IMMEDIATE RESULTS Following the experiences of SEA ANGEL and FIERY VIGIL, Admiral Larson designated the Commanding General, III MEF; Commander, Seventh Fleet; and Commanding General, I Corps as primary standing candidate CJTF commanders under the two-tiered command and control concept. Several other commanders including the Commander, Third Fleet were designated as alternates.

CINCPAC also directed that PACOM would put first priority on CJTF training for both the nucleus staffs and the JTF augmentation cell. The PACOM Simulations and Gaming Department was given the task of developing a simulation plan that would periodically exercise CJTF candidate staffs and their CINCPAC

augmentees in a realistic and meaningful manner. The PACOM J-35 was assigned the task of designing a training and professional education package that will prepare augmentees to function effectively as part of CJTF staffs.³⁴ CINCPAC clearly believes that the two-tiered command and control system is the wave of the future, and has acted forcefully to implement the program throughout PACOM in the future. Figure 3 provides an overview of the two-tiered command and control concept for readers not familiar with that system.

UNDERSTANDING THE ENVIRONMENT. One of the primary requirements of designing any training program is to understand the operational environment that the organization will be operating in. An analysis of interviews with SEA ANGEL participants and members of the CINCPAC staff leads to a series of general conclusions regarding the overall environment within which future CJTFs will operate. These are as follows: First, crisis situations can be expected to occur with little or no prior notice. Second, planners must assume, until assured otherwise, that the local support infrastructure will be limited or hostile. Finally, deployment will be done very quickly and will necessitate a "come as you are" approach rather than deliberate planning.

HUMANITARIAN VERSUS WARFIGHTING SKILLS. In addition to understanding the environment, another key concept in training is

to ensure that the pool of augmentation personnel is deep in the skills required for peacetime engagement missions. The need to recognize that there is a difference in skills required for humanitarian assistance missions as opposed to combat missions was stressed by Air Force Brigadier General Timothy Gill in an interview as research for this study. The extent to which unique skills will be required in any mission may not be known until the CJTF commander is on the ground and has made his initial assessment of the situation. General Gill stressed that once that determination is made, the request should come to the CINC from the CJTF commander, not via the component chain.³⁵ This comment was echoed in conversations with key staff members of JTF SEA ANGEL.³⁶ General Gill indicated that guidance to that effect would be spelled out clearly in future CJTF activation orders.

A listing of several key skill areas identified by Sea Angel participants as being requirements for that operation are as follows: Contracting personnel, Disbursing Agents, Comptroller personnel, Environmental health specialists, Civil engineers, Rapidly deployable joint PAO teams, language qualified cultural specialists or Foreign Area Officers (FAO's), and extensive Civil Affairs support in case of mass refugee situations. Some of these skills would be required during the initial assessment, and they will be included in the discussion of assessment team organization later in this chapter.

ORGANIZATION FOR JOINT HUMANITARIAN RELIEF OPERATIONS. Although designed primarily to deal with humanitarian contingency situations, this study will also make some recommendations on the selection criteria for CJTF nucleus headquarters in given situations.

Criteria For Nucleus Selection. Based on an understanding of the environment, it becomes clear that each of the three primary candidate nucleus headquarters in CINCPAC's two-tiered concept brings unique skills to the table. These skills will be a major factor in selection of a commander and staff around which to build the CJTF. Some of these criteria are as follows:

- In situation where the environment ashore is hostile or where a headquarters ashore is not required, a fleet staff is probably a good choice. The fleet commander can then operate the JTF from his flagship, and would likely dual hat as the naval component commander. A hostile NEO situation or a primarily naval situation such as a crisis in the Spratlys are examples.

- Situations requiring political-military interface with the host government and country team where the JTF staff might have to live under austere conditions due to a damaged or limited infrastructure would argue for a MEF command element as the JTF nucleus as occurred in Bangladesh.

This would be particularly important if Marine Corps aviation is being used extensively; each MEF headquarters is capable of planning for and controlling the use of aviation in an austere expeditionary environment.

- Circumstances requiring a longer term presence in country such as nation building projects or extensive training missions argue for a corps headquarters, particularly in the Western Pacific where a large number of bilateral exercise requirements mitigate against tying up III MEF or Seventh Fleet staffs for extended periods.

Organization of the Initial Assessment Team. From an analytical standpoint, one of the strengths of the initial size of OPERATION SEA ANGEL was that its initial assessment staff was designed to be small enough to get the job done, but not so large as to put an undue strain on the local infrastructure. This basic approach is recommended for contingency humanitarian operations where local conditions are initially uncertain. The Task Force's initial knowledge of the situation in Bangladesh was very limited due to damaged communications. Thus, its staff designed a small initial package to be self-sufficient in necessary communications, essential ground transportation, food and water purification for up to three days. The initial package called for three C-141 loads of equipment as outlined in Figure 4. As the situation on the ground became more clear, the two

aircraft with the water purification equipment and the motor transport assets were discarded as it was determined that the embassy had these capabilities to support the assessment staff.³⁷

The key concept here however was that the CJTF staff was modularized from the beginning in order to allow General Stackpole to quickly add or delete capabilities as the situation dictated. This would appear to be a sound planning principle for future operations.

Based on an analysis of the experiences in OPERATION SEA ANGEL, the recommended personnel mix for the initial assessment staff in situations where there is uncertainty regarding the situation on the ground in country is presented in Figure 5. This configuration allows for twenty four hour operations for several days until the entire staff arrives, but allows for minimum impact on the host nation and country team until the initial assessment can be made. Figure 6 is a recommended initial JTF staff for humanitarian relief operations in an austere environment; this figure includes the original assessment team which is absorbed by the JTF staff. It can be reinforced as needed, but is still designed with the objective of minimizing the impact on the host nation infrastructure and culture.

TRAINING. Training for any two tiered CJTF mission must consider both the CJTF augmentation cell and the nucleus staff. This is

equally true for combat missions as well as peacetime engagement taskings. In either case, the nature of contingency environments is such that a minimum amount of time can be devoted to staff orientation and shake down. The CJTF must be prepared to hit the ground running immediately. That the two elements of the JTF SEA ANGEL staff were able to function magnificently with no prior joint work up should not mask the fact that virtually all personnel interviewed felt that they would have benefitted greatly from joint training between the nucleus staff and the augmentees. The recommendations listed below are based on interviews with participants from the CINCPAC Crisis Action Team, the JTF staff, a review of the current training plan for the augmentation cell, and discussions with participants in Operations Desert Shield, Desert Storm, and Provide Comfort.

Phases of Training. Three phases are seen as ideal in preparing a CJTF to function in an integrated manner, but the first two are considered critical in developing some form of teamwork among the elements prior to deployment. These phases are as follows:

- Phase I. Training both the CJTF nucleus and the augmentation cell in appropriate joint command and staff action, terminology, reporting procedures, and such actions to ensure individual members are constantly deployable.

- Phase II. Joint familiarization workshop. Ideally conducted at CJTF home station. It would be best if all augmentees attend; if not possible, key staff members of augmentation cell attend. Objective is to familiarize members of organization with each other and to familiarize augmentees with the CJTF commander's philosophy.

- Phase III. Exercise using integrated JTF staff in appropriate simulation.

Key Elements of Phase I. Phase I is merely a method of bringing all potential members of the CJTF staff up to speed on surviving in a contingency joint staff environment. The word "contingency" is key here because, even on a large joint staff, very few of the personnel get a chance to work with the crisis action system on an intimate basis; this system is much different than the working environment that most of these individuals deal with on a day-to-day basis. The crisis action system is similar to the staff planning process that most Army and Marine ground officers are familiar with, but it is not common in the Air Force and Navy. As a consequence, it is not a safe assumption to believe that because a service member is serving a joint tour, he knows the Crisis Action System. The same situation holds true to a larger degree on the CJTF nucleus staff. The need to keep up with medical and administrative aspects of deployability

readiness is an ongoing challenge and will need to be a large part of ongoing Phase I training.

Figure 7 is an outline of CINCPAC's proposed Joint Augmentation Cell training plan for FY 91 which provides an excellent guide for augmentation cell orientation.

Figure 8 is the syllabus for the Marine Corps MAGTF Integration Training program. The III MEF staff had undergone a program largely based on this syllabus prior to the events leading up to OPERATION SEA ANGEL, and this paid great dividends to the staff for operations in the joint arena.

The emphasis on lessons learned in preparing both augmentees and the nucleus staff to deal with various contingencies is important. Most of the training syllabus can be generically joint to get the job done, but the value in gaining lessons from the experiences of others cannot be overemphasized. Periodic seminars to review the lessons of recent joint operations and exercises should be conducted for augmentees and the CJTF candidate nucleus staffs.

Key Elements of Phase II. Face-to-face contact between augmentees and the candidate nucleus staffs on a periodic basis would immeasurably enhance the readiness of this concept. This should take the form of periodic workshops that would allow the

players to get to know each other and allow the augmentees to familiarize themselves with the commander's operational philosophy. This will cut down the "culture shock" associated with attempting to put together a CJTF on the run. These events do not have to be particularly time consuming, but they should be conducted at least twice a year and definitely after a change of command in the candidate nucleus organization. Ideally, all augmentees would attend; if that is not possible, key augmentee staff members should be included. Key events should include, but not be limited to, the following:

- A presentation by the candidate commander on his philosophy for operating in a joint environment.

- A presentation by the designated deputy on the CINC's expectations and operating philosophy to include reporting expectations.

- A presentation by the JTF Augmentation Mobile Training Team similar to the one outlined in Figure 7 that the Augmentees receive.

- Discussions about which group will provide various types of publications and supplies.

- Guidance from the candidate nucleus staff on individual

personal clothing and equipment to be carried by augmentees.

- A workshop session on SOPs and agreement on rectification of any joint training shortfalls uncovered.

- One or more social events designed to foster interpersonal relationships and build up an atmosphere of camaraderie in the organization.

Key Elements of Phase III. If funding permits, periodic exercises should be conducted that test the ability of each candidate CJTF to operate effectively with its augmentees and its communications in conjunction with designated service component commands. Figure 9 is a representation of CINCPAC's envisioned exercise system. It should be noted that the plan calls for the simultaneous exercise of two contingencies at one time recognizing the experiences of 1989 to 1991 that crises have a tendency to occur in multiples.³⁸ This plan appears to have much merit in that it exercises three functions key to successful CJTF operations: First, integration of the JTF augmentees into the JTF nucleus staff. The second component is the exercising all hands as to the working of the Crisis Action system. A final is emphasis on joint reporting to the CINC's Crisis Action Team.

OTHER OBSERVATIONS AND RECOMMENDATIONS

- The JTF did not use a formal Air Tasking Order with a 48 hour

cycle for centralized control of all air operations. The daily prioritization process conducted by the coordination cell, the fast breaking nature of the relief effort, the incremental arrival of communications between Dhaka and Chittagong all mitigated against such a system. Instead, a daily ATO for the C-130's and the Marine Corps C-12 was issued at Dhaka and a separate schedule was created at Chittagong for the helicopters and landing craft. This type of organizational approach was designed to deal with a unique situation, and is mentioned here in order to point out that in this type of operation, non-traditional approaches may be in order. The Joint Force Air Component may well not be in a position to exercise centralized control over in all situations. In contingency operations such as this, flexibility will be in order.

-- Each CINC should have two deployable communications and WWMCCS suites to be able to deploy rapidly for contingency operations. The residual of the organization providing the JTF nucleus and commander may well have to operate as the service component and would need its own command and control capability in such a case. PACOM is attempting to develop such a capability by developing highly mobile, deployable communications packages. Two are considered necessary because of the possibility of dual crises situations as occurred with SEA ANGEL and FIERY VIGIL.

- The CINCPAC J-323 which is responsible for disaster relief

planning requires skills generally resident in the reserve forces. Consequently, it depends on reserves for its day-to-day manning and is currently understaffed. Some form of extended active duty for 3-4 additional personnel would be helpful here.

OVERALL RECOMMENDATION. The two tiered command and control system appears to be a viable, flexible and realistic approach to the problem of conducting contingency operations in a joint environment.

CHAPTER 3
CIVIL-MILITARY RELATIONS
IN HUMANITARIAN RELIEF
OPERATIONS

GENERAL. One key point that General Stackpole grasped quickly during OPERATION SEA ANGEL was that, as in counterinsurgency operations, humanitarian relief operations require that the host nation take the lead in setting priorities and overall policy. The General and Ambassador Milam made this the guiding principle throughout the operation.³⁹

The primary problem in this approach was that Bangladesh, as is the case in many developing countries, does not have a strong tradition of intragovernmental cooperation. The new elected government was only a few months old and was on a tenuous footing. The army was still feeling out its role in a democracy, and the professional civil service did not have a strong tradition of quick response in a crisis. In addition, the non-governmental relief organizations such as CARE and the Red Crescent had a superb structure for nation building, but lacked the transportation resources to get their relief supplies and personnel from Dhaka to the disaster sites. They also required communications support. There was an understandable degree of mutual suspicion between the governmental and non-governmental organizations, and very little coordination was being

accomplished when the task force arrived.

Upon ascertaining that the primary problem was one of distribution, the commander and his staff quickly came to the realization that it would need all of the key actors working in unison if it were to accomplish its mission of stabilizing the situation and reducing mortality. Each key actor brought a critical element to the table. A summary of these follows:

- The elected civil government had the legitimacy and had to be seen as the primary agent in the operation from the Bangladeshi perspective.
- The Bangladesh Army had the ability to provide civil order at the distribution sites. U.S. personnel could not be involved in armed confrontation with desperate locals in the landing zones.
- The civil bureaucracy controlled the surplus grain in government granaries or "go downs" that would be required for long term feeding of the victims.
- The NGOs had the majority of relief supplies, to include the ubiquitous CARE packages, needed to stabilize the immediate situation. They also had personnel with years of experience in dealing with such disaster situations.⁴⁰

It was readily apparent that some method of coordinating these efforts was vital to the success. Talks between the J-3, AID officials, and representatives resulted in a plan for the development of national and local level coordinating committees that would operate under government control on a daily basis to coordinate efforts and set priorities. The first meeting of the national level cell was conducted on 15 May at the Presidential Secretariat. It was chaired by the Prime Minister's direct representative, Brigadier Shaffat. The Bangladesh Army was represented by Brigadier Ibrihim. Together, these two highly competent and energetic officers conducted brisk, well organized meetings that seldom took over an hour to complete. Each meeting had an agenda, and the objectives of the meeting were clear to all concerned. Figure 10 details the normal decision making sequence that was followed by the Dhaka cell.

This process was repeated at the local level in Chittagong where the decisions were made as to how the supplies would actually be distributed to the victims. As in Dhaka, the cell was chaired by a Bangladeshi official; in this case Government Secretary Mokammel Haque. The Chittagong cell took on an increasingly international flavor as British and Japanese participants arrived on scene. Figure 11 denotes the general flow of this decision making process. It should be noted that this process was less tidy than the one in Chittagong because this was where the actual allocation of supplies to the individual

disaster sites took place; consequently the process in Chittagong was much more of an ongoing management evolution and less of a planning process.

The point here is that the management of humanitarian relief operations is very similar to counterinsurgency operations in that they require that the host nation be the leading actor if they are expected to truly assist the national government in achieving the short term objective of treating the symptom. In both cases, the ultimate objective is to reinforce the confidence of the host nation population in the ability of the national leadership to govern effectively. In so doing, U.S. forces must walk a fine line between mission accomplishment and the danger of creating unrealistic expectations among the local population. The reminder of the Hippocratic Oath "to do no harm" is operable here.

DEALING WITH NON-GOVERNMENTAL ORGANIZATIONS. One of the greatest analytical lessons to come out of SEA ANGEL was the efficacy of Non-Governmental Organizations (NGOs). In many developing nations, organizations such as CARE, Save the Children, and other NGOs represent the primary organization for nation building and normal disaster relief. In the case of Bangladesh, CARE ran a very extensive program of infrastructure construction, job training for women, agricultural assistance and a host of other programs designed to build up the self reliance of the individual

peasants. If the road and ferry infrastructure had not been destroyed, CARE and the Red Crescent would have been largely capable of handling relief efforts with organic and contract assets as they had built up adequate supplies of emergency food and relief supplies for just such an eventuality. The really key contribution of U.S. and other allied military forces to this effort was in distribution food and supplies as well as in providing communications assistance. Helicopters, Landing Craft Air Cushioned (LCACs), and other landing craft were invaluable to getting lifesaving relief supplies to remote locations, and the ability of U.S. and allied forces to sea base these assets aboard the ships of the Amphibious Task Force (ATF) as well as other allied vessels immensely enhanced the process.

Perhaps the primary lesson learned here is that U.S. military personnel must learn to draw on these organizations as assets; we should not be too proud to request their advice and assistance. In Bangladesh, a synergistic relationship developed in which both the military forces and the NGOs provided the talents they were each best suited to bring to the table. The NGOs had the advantage of a sound day-to-day knowledge of the area of operations, the trust of the locals at the village level, and years of experience in disaster relief operations; all of this can be invaluable in the initial assessment process as well as in actual operations. An illustrative example is appropriate here. One way that veteran CARE workers gauge how well immediate

lifesaving efforts are going is to watch the local marketplace. When the high protein bars organic to the CARE packages start showing up on the open market, relief workers begin to bring in uncooked rice which the peasants will then prepare by cooking. The rationale here is that CARE has found that the peasants don't like the protein bars, and that they will trade them away for other foodstuffs and fuel as soon as the opportunity arises. CARE takes this as a sign that the locals have come out of the survival stage and are ready to return to normal dietary functions. Thus, the uncooked rice is delivered next; when adequate rice supplies are on hand, seeds and building materials receive priority.⁴¹ The ability to develop these kinds of "intelligence indicators" presents an invaluable asset to a newly arrived task force operating in an unfamiliar country. It is an asset that should be utilized to its fullest.

Before contacting any NGO, the U.S. military organization should ensure that it is working in coordination with the U.S. Country Team, particularly the Agency for International Development representatives. There are two good reasons for this. First, not all NGOs will be acceptable to the host government; some will be viewed as subversive, and others will be in the throes of normal, temporary disputes with the government. The U.S. military should avoid getting caught in the middle in such situations. If help is needed from an agency on the "outs" with the government, it is the embassy's job to attempt to mend

fences. The second reason for working through the country team is that there will already be U.S. development plans and strategies in place. Military personnel must be sensitive to these, and ensure agreements with NGOs do not interfere with such programs inadvertently. Every agency has an agenda; most are benign, but it is the responsibility and prerogative of the ambassador to make the final determination of the extent of U.S. involvement with NGOs in any host nation.

Individual service members must also be prepared to be extremely flexible in dealing with individual NGO workers. Perhaps by definition, the individuals who gravitate to that profession are more likely to be people more prone to the Peace Corps than the Marine Corps.⁴² They will generally be more prone to seek consensus than the average military man or woman, and they will not understand military institutional cultural norms any more easily than service members will understand theirs. This can lead to friction unless both sides make a determined attempt to overcome such prejudices in order to help save lives. The SEA ANGEL operation worked well in this context because both sides realized the gravity of the situation and placed considerable emphasis on harmonious relationships.

RECOMMENDATIONS. In future operations, the following considerations are recommended as being helpful in planning for relationships with NGOs:

NGO REQUIREMENTS

In situations where the infrastructure has been damaged, the normal NGO tactic of renting large numbers of commercial trucks to transport relief supplies will not be feasible. Therefore, they will require U.S. military assistance in distribution. The SEA ANGEL solution for using C-130s for long haul and helicopters/LCACs for shorter distances was an excellent expedient. Where airfields permit, C-141s/C-5As can also be considered. However, caution must be exercised here. The larger aircraft come with a considerable footprint in ground handling equipment that may unduly burden the local infrastructure. The decision to use them should be a major consideration for the assessment staff.

Another major consideration should be communications. The NGOs rely on local telecommunications means which will be very vulnerable during disasters. To function effectively, they will need some augmentation from U.S. communications assets. Consideration should be given to allowing NGO liaison personnel access to uncovered communications links and collocating DART teams with NGO personnel to facilitate cross communications.

NGO Capabilities in Support of U.S. Efforts

NGOs provide an excellent source of information on local

customs, attitudes, and information concerning current conditions on the ground, and they have generally excellent mechanisms for distribution of food and supplies. This can help avoid duplication of effort on the ground. The NGOs are also generally sensitive to village and local politics, and they can help identify local leaders for liaison purposes. CARE in particular provides funds for hiring body and carcass disposal. This is a sensitive area in many regions of the world and one that JTF SEA ANGEL wisely avoided getting involved in despite strong local pressure to do so. It helped to be able to say, "CARE is handling that".⁴³

CHAPTER 4
SEA BASING IN HUMANITARIAN
RELIEF OPERATIONS

GENERAL. The decision to use sea basing as the focus of effort for SEA ANGEL was reached fairly early in the operation based on the availability of the Amphibious Task Force with the Fifth Marine Expeditionary Brigade embarked as it swung by Bangladesh enroute home from the Persian Gulf. Some consideration was given to the possibility of landing large portions of the MEB in preliminary planning conducted while the JTF staff was still on Okinawa, but this was quickly discarded when the assessment staff got a feel for the condition of the infrastructure ashore, particularly in Chittagong.⁴⁴ The primary considerations that mitigated in favor of seabasing were as follows:

- Minimum impact on local infrastructure

- Lower visibility for U.S. forces; minimized potential for cross cultural conflict while maximizing perception that the Government of Bangladesh was in charge of overall operations

- Minimized health risk to U.S. personnel

- Minimized security risk to U.S. personnel from terrorist threat which was not high but remained a consideration

- Excellent opportunity for Navy/Marine Corps team to practice amphibious techniques in a peacetime engagement environment.

COST FACTOR. Although cost was not an overriding consideration in the early stages of the operation, the alternative cost of providing the helicopters necessary for an operation of this scale by flying them in from the United States would have been considerable. A conservative estimate of the cost of flying in the twenty eight Marine Corps helicopters used in the operation via MAC airlift would have been approximately 2.2 million dollars to include ground support equipment and other logistics support such as transportation.⁴⁵ This kind of estimate is admittedly dangerous because it assumes an ARG/MEU will be reasonably close; if we would have been forced to bring in the ARG from the Mediterranean, the expense might well have been greater than air ferrying the helicopters. However, any air ferry option would have ruled out the LCACs which were so vital to the operation. These kinds of costs are likely to have a greater impact on planning as we move more deeply into an era of fiscal austerity.

THE ALTERNATIVE TO THE ATF IN FUTURE OPERATIONS. The presence of the ATF in close proximity to Bangladesh will certainly always be viewed as a godsend to the Bangladeshis. The presence of a naval force of similar size in future disaster situations is certainly a circumstance that will not have a high probability of

recurrence in future humanitarian assistance/disaster relief operations. If that is the case, U.S. planners will have to work with what is on hand. None of the options listed below is preclusive. Ideally, they could be combined in an attempt to increase the scale of support rendered:

Option 1; the use of the Marine Expeditionary Unit (Special Operations Capable) closest to the disaster area. This option includes fewer helicopters (22 vice 28) than the Fifth MEB carried. Although somewhat less capable than the MEB, the MEU still provides an impressive capability in relatively close proximity to the scene of most potential disasters. If the steaming time is long enough to preclude providing immediate help, a limited number of helicopters can be flown in via MAC to provide some form of interim assistance if needed.

Option 2; use of an aircraft carrier carrying Marine heavy and medium lift helicopters. This option would envision flying Marine aircraft via MAC to meet the carrier at a port enroute to the disaster scene. A special purpose MAGTF configured for such operations would be formed, and Deck Landing Qualifications quickly accomplished. Preparations for such an operation were conducted in 1990 aboard USS Midway in the Western Pacific when the 13th MEU sailed to the Persian Gulf in support of DESERT SHIELD. Such configurations can be used for evacuation operations as well as other special operations when conventional

amphibious platforms are not available.

Option 3; Maritime Prepositioned Ships in a Humanitarian Assistance Crisis Action Module Configuration. One ship in each MPF suite will eventually be configured primarily to support such operations. These configurations are best suited for shore based operations, but could be used as an enhancement to sea basing by providing logistics support. Each can accept LCACs for loading and has a flight deck capable of supporting helicopter operations. Currently, there is one MPF squadron each in the Atlantic, Pacific and Indian Oceans.

COMPARISON OF OPTIONS. Option 1 is the preferred course of action when available. MEUs prepare for combat missions requiring very similar skills to those needed in humanitarian/disaster relief operations; they are also skilled in the rapid planning process required for situations requiring immediate action. The potential drawback here is that the MEU may not be available for such operations if another crisis of greater magnitude is in the works. This was the case in May of 1991 when there was no MEU in WESTPAC due to the aftermath of DESERT STORM. In this case, Option 2 makes for an attractive alternative supposing that a carrier is available. It is also a viable option when the magnitude of the disaster is such that the MEU alone cannot adequately accomplish the mission. It needs to be noted that option 2 provides no organic boating capability

such as conventional landing craft and LCACs; it provides only an aircraft platform. Option 3 is not a viable seabasing option because MPF ships are not designed to carry large groups of Marines for sustained periods although they can do so in a pinch. MPF should be seen as an enhancement for seabasing, if MPS is the only type of platform available, a land based relief operation should probably be considered built around a humanitarian relief configured Marine Air Ground Task Force (MAGTF).

RECOMMENDATIONS. Based on the foregoing analysis, the following recommendations are offered:

- Humanitarian relief operations should be seabased where possible.

- The overall command and control of this operation is best accomplished through the mechanism of the two-tiered command and control process developed along the current CINCPAC model.

- Where possible, the use of an afloat Amphibious Ready Group with its embarked MEU(SOC) is the best option for conducting humanitarian assistance/disaster relief operations when seabasing is an option. A carrier based MAGTF is an acceptable alternative to an ARG for seabased operations in situations that do not require a ship-to-shore boating capability.

- Maritime prepositioning is an acceptable enhancement to other sea based options, but should not be seen as a stand alone sea based option unless no other alternative is feasible. MPS humanitarian assistance MAGTFs can be effectively shorebased if the local infrastructure allows, but sea basing using afloat forces is a preferred option where feasible.

CHAPTER 5

ONGOING ASSESSMENT

GENERAL. A unique aspect of humanitarian relief/disaster assistance operations is that of the ongoing assessment of the situation. In combat operations, this is a fairly straightforward task. Intelligence tracks how effective we are in dealing with the enemy, and submits that input to the operators for inclusion in the daily situation report. There are well defined mechanisms for collecting, analyzing, producing, and disseminating this information. In humanitarian assistance operations, there is not currently a clear cut doctrinal answer to how ongoing assessment should be conducted.

In such operations, there is no clearly defined enemy. The disaster itself is the real foe. A purist would argue that, if this is the case, this is friendly situation information and belongs in the realm of operations. Operators in SEA ANGEL maintained that the process "looked, walked, and talked like the intelligence cycle".⁴⁶ The process of assessment of effectiveness of effort evolved from the J-3 section to the J-2 section, but the J-3, who recommended the move, still wondered if there was a better way of addressing the situation.⁴⁷

OPTIONS. Analysis shows that there are three obvious options for choosing an organization to do assessment in such operations in

the context of the two tiered command and control system. These are:

1. Use the operations section of the J-3 and treat the assessment as a normal part of friendly operations
2. Use the J-2 shop and treat operations against the disaster as the enemy situation
3. Create a new mechanism drawing on the expertise of civil affairs personnel to accomplish the assessment

COMPARISON OF OPTIONS.

Option 1; Use of J-3

Advantages. First, the J-3 will ultimately collate information; therefore, the effort remains centralized. Second, the J-3 has best knowledge of efforts of U.S., allied, and host nation efforts.

Disadvantages. Most important is that the J-3 is intimately involved with operations; he will not be an impartial judge of effectiveness. A second disadvantage is that the J-3 will have to be manned with personnel possessing analytical skills to properly gauge the effort. Third, the J-3 will likely

be hard pressed merely to execute fast moving operations much less carry on cogent analysis.

Option 2; use of J-2

Advantages. Many of the skills required for collecting and analyzing information as well as producing and disseminating product are essentially the same as those required in the intelligence cycle. Second, because there is not an active enemy in most humanitarian relief operations, intelligence shops are going to be underemployed if not engaged in ongoing assessment. Finally, contacts made in the assessment process would be invaluable in furthering the area knowledge of U.S. intelligence professionals.

Disadvantages. The only major disadvantage here is that if an actual threat situation arises, intelligence personnel will likely be distracted from the assessment process, and more personnel will need to be brought in to accomplish both missions.

Option 3; Building an assessment cell around the civil affairs cadre.

Advantages. The major advantage is that Civil Affairs personnel are trained to understand issues relating to the population.

Disadvantages. The major disadvantage here is that most civil affairs personnel are reserves called to active duty for a limited time; in the absence of a general call up, they will only be available for limited periods. Also in a situation involving mass civilian evacuation, these personnel might be required for other duties. Finally, such a cell would still need to be augmented with trained analysts, or such personnel would have to be "grown" in the civil affairs community.

DISCUSSION OF OPTIONS. Option 1 was the initial vehicle for assessment during OPERATION SEA ANGEL, but it soon became apparent that if suitable attention was going to be given to assessment, more personnel were going to be required if a proper job was to be done. By the time this conclusion was reached, a policy decision had been made to freeze the number of U.S. personnel in country to avoid overtaxing the infrastructure; this was a legitimate concern, but it mitigated against any further growth in the J-3 section. At this time, all civil affairs personnel were assigned to the J-3 and were working assessment issues, but their reserve status required them to be replaced at approximate ten day intervals. This was a "showstopper" for any plan to build the assessment cell around the civil affairs section. At the same time, it was noted that the J-2 sections at both Dhaka and Chittagong were underemployed. Consequently, the commander accepted the J-3 recommendation to move assessment functions to the J-2. The J-2 section for SEA ANGEL was small,

averaging about five personnel in Dhaka and three in Chittagong. Consequently, upon receiving the assessment tasking, they were augmented by personnel from the Civil Affairs section of the J-3.⁴⁸ This was the sequence of events that drove the JTF toward adopting Option 2.

Option 1 becomes more feasible in the future if more personnel are added to the J-3 section, but this option still presents a mismatch between J-3 and J-2 responsibilities. In addition, it still leaves the J-2 without meaningful responsibilities in a low to no threat environment. During OPERATION FIERY VIGIL in the Philippines, which began as SEA ANGEL ended, the J-2 assumed assessment responsibilities immediately by declaring the volcano to be the enemy.⁴⁹

Option 3 will remain infeasible short of a general call up or the reinstatement of civil affairs personnel into the regular forces; neither of these situations appears likely in the near term. In a post-operation interview, the JTF SEA ANGEL J-2 observed that, in retrospect, the use of the J-2 for assessment was the most logical way of approaching the assessment problem.⁵⁰

CONCLUSIONS. Based on the SEA ANGEL and FIERY VIGIL experiences, the use of the J-2 with augmentation from civil affairs personnel appears to be the optimal manner in which to approach the problem of ongoing assessment.

RECOMMENDATIONS. The J-2 structure listed in Figure 5 outlines a recommended JTF J-2 staff organization configured for assessment in a humanitarian assistance/disaster relief environment. This organization is also reflected in chapter two which outlines a proposed organization for the entire JTF staff. It is also recommended that in such operations, the J-2 be titled "Directorate for Military Information and Relief Assessment". This would go a long way toward avoiding the appearance that intelligence operations are being conducted under the guise of humanitarian efforts. UN peacekeepers have found this to be helpful in framing their military information gathering efforts.⁵¹

CHAPTER 6
PUBLIC AFFAIRS IN HUMANITARIAN
ASSISTANCE OPERATIONS

When the JTF assessment staff left Okinawa, it did so without Lieutenant Colonel James Vance, the III MEF Public Affairs Officer, Lieutenant Colonel Vance was on a temporary additional duty trip to CINCPAC Fleet in Hawaii and was expected to join the JTF staff in Bangladesh. Upon arrival in Dhaka, Major General Stackpole realized that he would require almost immediate PAO support as massive media presence was already on the scene to include all major networks. Upon learning that the JTF staff was temporarily housed in an Embassy residence compound, the press began besieging the headquarters for information. As an interim measure, General Stackpole directed that the Staff Secretary, act as PAO until Vance could arrive. This was an unenviable task due to the fact that the assessment team knew little more than the press when they hit the tarmac at Dhaka International Airport on May 12. In addition, the Staff Secretary had a myriad of other responsibilities to carry out as the JTF headquarters was growing with each aircraft that landed at Dhaka. No one was more happy to see Lieutenant Colonel Vance arrive on 14 May than the Staff Secretary, but Major General Stackpole undoubtedly ran a close second.

The press had been in Bangladesh continually since realizing

the cyclone's magnitude immediately following the storm. The heart rending pictures sent from the disaster scene were undoubtedly influential in the decision to send in U.S. forces. Press interest was decidedly non hostile, and when Lieutenant Colonel Vance arrived, he initially set up shop with the United States Information Service (USIS) spokesman at the Embassy.⁵² On the ground, the media represented a valuable source of information in the effort to put together an initial assessment of the situation.⁵³

Upon getting settled on the ground, Lieutenant Colonel Vance organized the PAO effort into two cells; one operating from Dhaka in coordination with the Embassy Press Spokesman, and the other in Chittagong to assist coverage of the actual relief efforts. In addition, Captain Jurkowski, USN arrived from CINCPACFLT on 17 May to assist in the ATF coverage, particularly in anticipation of the visit of Mrs. Quayle to the ATF. The cells consisted of four personnel at Dhaka and five personnel at Chittagong. This number does not include the members of the Joint Combat Camera Team which was also on the scene.⁵⁴

ANALYSIS OF OBSERVATIONS. The following observations are derived from analysis of After Action Reports in the Joint Universal Learned system (JULLS), the Marine Corps Lessons Learned System, reviews of operational reports, and interviews with participants.

Media Access to Operations. One high ranking PAO official noted that the lack of an enemy in humanitarian and disaster relief operations allows for freer media access to operations, and that this access will make for better media relations.⁵⁵ This is an excellent point, but it must be noted that many of our SOPs for media operations are predicated on combat. Consequently, unless some form of special guidance is given for such operations, personnel on scene can be expected to execute the SOPs they have on hand or to improvise. These procedures may well be totally inappropriate for the situation at hand, and valuable opportunities to tell a very favorable Defense Department story may be lost. This should be considered in reviewing operational procedures in the wake of the experiences of 1991.

Military Assistance in Media Travel. In situations where the local infrastructure has broken down or has been destroyed as it was in Bangladesh, the media must rely on the U.S. military for transportation even in situations where the PAO is not conducting tours; there is no alternative means of transport in such situations. PAO participants in SEA ANGEL were nearly unanimous in stressing that the adequate provision for media travel which exist for them must be a consideration in future humanitarian or disaster relief operations.⁵⁶ This will require a number of quick considerations early on in the rapid planning

cycle such as blanket permission to fly media and foreign nationals. It will also likely drive up the number of escort personnel required for the operation. This type of operation will probably allow for more openness on the part of the military than would be allowed in a combat operation; this will allow for a more cordial operating atmosphere if the situation is not immediately poisoned by inappropriate adherence to SOPs not relevant in a humanitarian or disaster relief operation.

USE OF COMBAT CAMERA TEAMS. CINCPAC Combat Camera Teams arrived on scene in the second plane into country, but they remained under the direct operational control of CINCPAC throughout the operation.⁵⁷ The Public Affairs personnel interviewed and after-action comments stressed that they could have used the products produced by these teams immediately on the scene.⁵⁸ These products were shipped directly to CINCPAC PSYOPS for use, but were not available to the commander on scene or his PAO staff. This product would have been helpful in the public affairs effort, but none of the combat camera personnel on scene were authorized to clear it for local use. It would appear that excellent opportunities were lost by both communities involved as the PSYOPS personnel would have been able to exercise field clearance procedures while the PAO derived benefit in its area.

NEED FOR PAO PERSONNEL ON THE AUGMENTATION CELL. The current JTF Augmentation Cell structure at CINCPAC does not

include rapidly deployable PAO augmentation personnel.⁵⁹ This is an area that merits review. The local PAO sections of the candidate JTF nucleus staffs are not large enough to provide an adequate PAO staff to cover a joint operation of any significant scale. This is particularly true in the area of enlisted administrative support.⁶⁰ Public Affairs personnel are needed early on in such operations; consequently, they must be rapidly deployable and should have deployment kits with essential supplies ready for air deployment at short notice.

RECOMMENDATIONS. Based on the above analysis, the following recommendations are offered:

- Current CINC and service component PAO SOPs should be reviewed with an eye toward updating them to allow for more liberal press access during humanitarian assistance/disaster relief operations.
- Such operations should include planning for media transportation if media coverage is desired.
- Combat Camera Teams should be OPCON to the JTF Commander; at a minimum, a procedure for local clearance and dissemination should be created. In-country still photo and video processing should be made available.

- JTF augmentees should include a PAO cell. The PAO structure listed in Figure 5 provides its suggested composition. It is a small organization, but should be large enough to handle an intense operation of relatively short duration.

CHAPTER 7

THE FUTURE OF U.S. HUMANITARIAN ASSISTANCE AND DISASTER RELIEF OPERATIONS

In a September, 1991 speech to the United Nations, President Bush called for a Pax Universalis in which nations will work together in the post Cold War era to bring about a better world. He said that the U.S. did not wish to dictate the shape of the future but would work in coordination with other nations to build a New World Order. This new spirit of international cooperation received precedents in cooperative ventures such as OPERATIONS DESERT SHIELD, DESERT STORM, PROVIDE COMFORT and SEA ANGEL. Despite its desire not to dictate such efforts, the U.S. will almost certainly be a key player in similar endeavors in the future. The 1991 Global War Game played at the Naval War College in Newport, Rhode Island in the summer of 1991 reinforced this trend. The game, which has proved highly predictive in the past, postulated that much of U.S. peacetime engagement strategy in the future will be built around humanitarian operations. The success of OPERATION SEA ANGEL may well be seen as a model for other such operations in the future.

Three key elements of Sea Angel worth noting for future operations are as follows:

- The two-tiered command and control system pioneered by

USCINCPAC worked well in both SEA ANGEL and FIERY VIGIL in providing responsive and tailored Joint Task Force command and control.

- Sea basing the disaster relief operation's main operating force provides a superb method of providing maximum effectiveness with a minimum negative impact on the host nation's culture, political stability, and ecology. Although there may be situations where geography of other situations limit such employment, the use of seabased maritime expeditionary force should be given strong consideration as a first choice in such operations.

- SEA ANGEL was also a prototype of a hastily assembled ad hoc international coalition effort for humanitarian purposes; its multinational naval cooperation aspects deserve further study as a manner of taking a building block approach to regional naval and military cooperation. Nations that might not otherwise consider combined military operations are more likely cooperate in humanitarian measures. This can, in turn, lead to confidence building ventures and possibly act as a building block to standing regional stability mechanisms.

Whatever the long term results of Operation Sea Angel, it is almost certain that it will not be the last such operation. Indeed, humanitarian assistance and disaster relief operations

may well become the most widely utilized form of expeditionary military operation in the last decade of the twentieth century and beyond.

FIGURE 1

AREA MAP

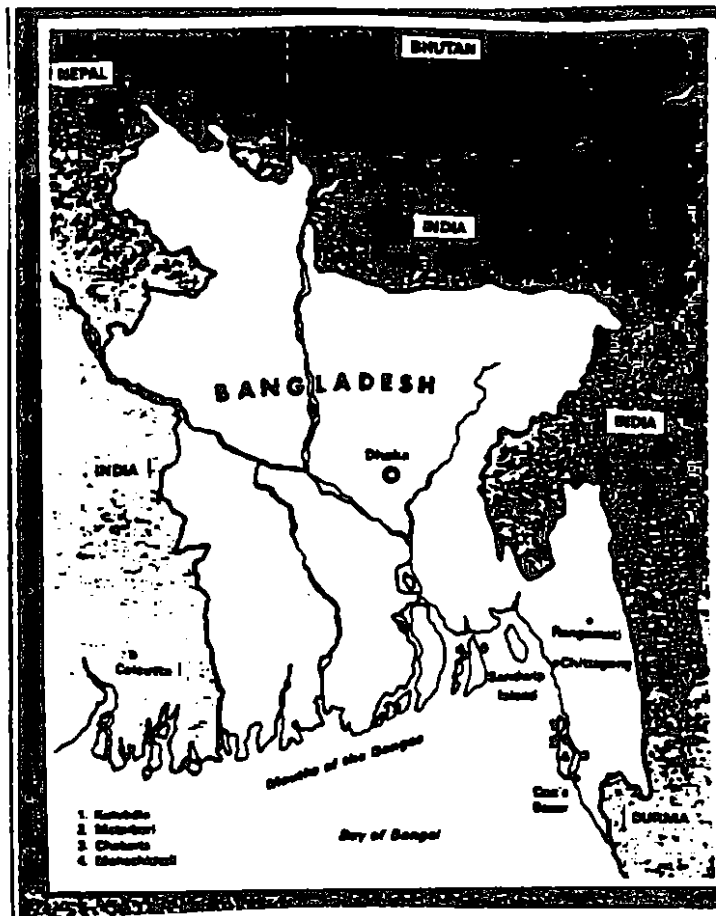


FIGURE 2

JTF SEA ANGEL TROOP LIST

Command Element	CG III MEF MajGen STACKPOLE
Det III MEF	
Deployable JTF Augmentation Cell	
C-12 Det MCAS Iwakuni and MCAS Futenma	
4th Combat Communications Group(-)	
Contingency Operations Base 3	
Contingency Operations Base 5	
PAO Det	
PAO Det, MCB Camp S.D. Butler	
PAO Det, COMNAVFORJAPAN	
PAO Det, COMUSFOR Subic Bay, RP	
Navy Broadcast Service (NBS) Fleet Support Det, Wash, DC	
Det 834th Air Logistics Division (ALD)	
Det 364th Civil Affairs Brigade	
Det 322d Civil Affairs Group	
Det 358th Civil Affairs Command	
Marine Forces (MARFOR)	
Fifth Marine Expeditionary Brigade	BGen ROWE
Marine Air Ground Task Force 2-91	LtCol JOHNSON
Navy Forces (NAVFOR)	
Task Group 76.6	RAdm CLAREY
USS St Louis	Capt PETERSON
Environmental Preventative Medicine Unit-6	
Air Forces (AFFOR)	Col HOFFMAN
Det 374th Tactical Airlift Wing	
21st Tactical Airlift Squadron(-)	
345th Tactical Airlift Squadron(-)	
Det 603 Airlift Control Squadron	
Det 8 Mobile Aerial Port Squadron (MAPS)	
Army Forces (ARFOR)	
4-25 Aviation Battalion(-)	LtCol ELZEY
Det 84th Engineer Battalion	
Special Operations Forces (SOF)	LtCol NORWOOD
Joint Special Operations Task Force	
1st Battalion, 1st Special Forces Group(Airborne) (USA)	
17th Special Operation Squadron (USAF)	
Det 2, 1723d Special Tactics Squadron (USAF)	

FIGURE 3
TWO TIERED COMMAND CONTROL CONCEPT



JOINT TASK FORCE

Two Tier C2 Concept

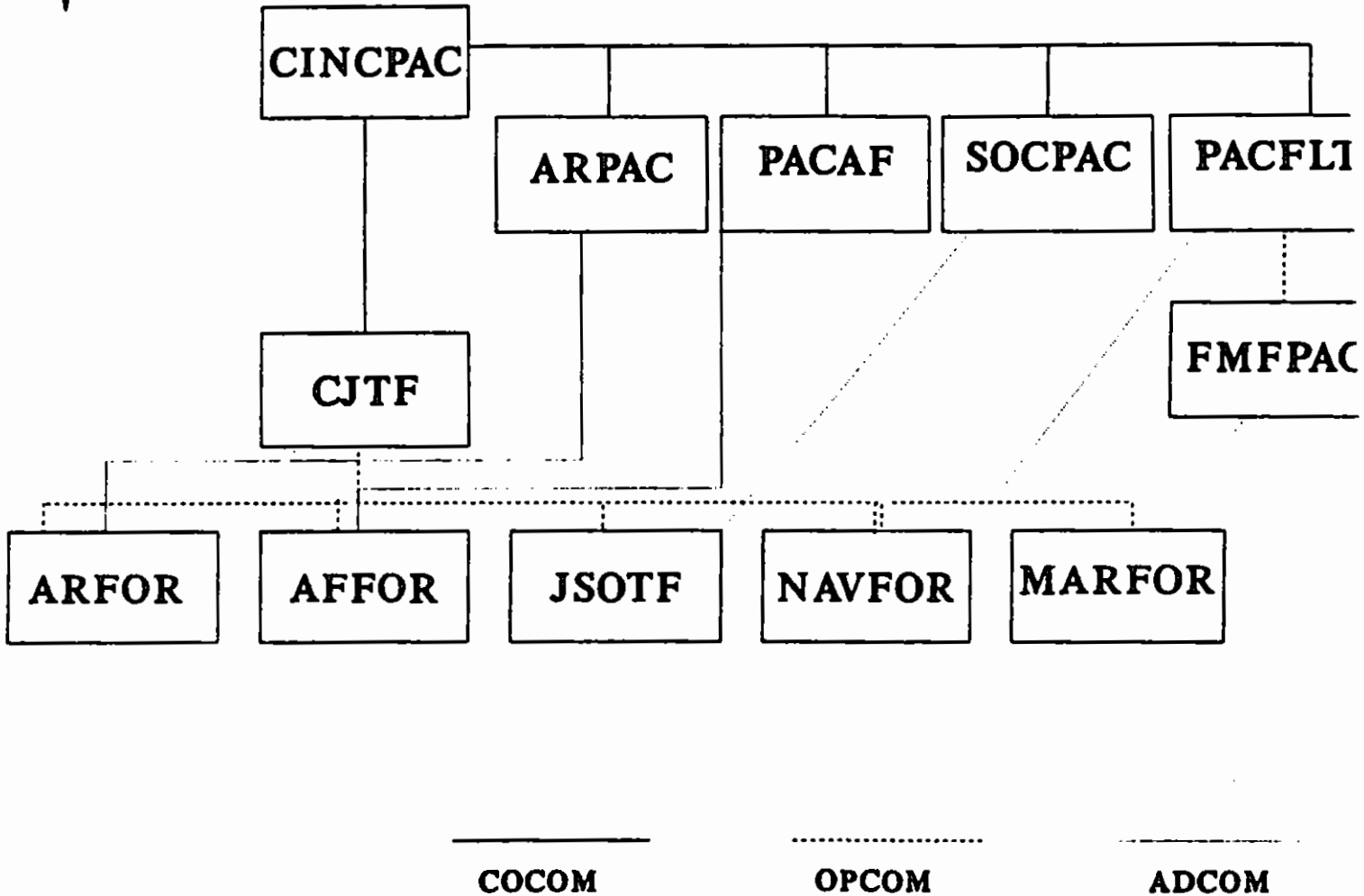


FIGURE 4

SELF SUSTAINING ASSESSMENT TEAM CONFIGURATION

PLANE 1

- Assessment Staff (30 personnel)
- Security/Headquarters Section (20 personnel)
- 5 ton truck with water trailer and tentage

PLANE 2

- 2 MRC communications vehicles
- 2 passenger configured HMMWVs

PLANE 3

- Reverse Osmosis Water Purification Unit (ROWPU)

NOTE: The modules were designed to be broken down as components were found to be unnecessary. By the time JTF SEA ANGEL left Okinawa, everything but the assessment staff and the MRE pallets were aboard the aircraft. In the worst case however, the team could have been totally self sustaining for up to three days or more if necessary.

FIGURE 5
RECOMMENDED ASSESSMENT STAFF CONFIGURATION

COMMAND SECTION

- Commander
- Staff Secretary
- Chief of Staff

J-1 (For TAD orders, accountability, and emergency leave)

- Personnel Officer*
- Senior Enlisted Personnel Specialist

J-2

- J-2 Officer*
- Counterintelligence Specialist
- two civil affairs officers to begin ongoing assessment*

J-3

- J-3 Officer
- Deputy J-3/Operations Officer*
- Senior Enlisted Operations Specialist
- Operations clerk
- Two reports Officers (One per shift)*
- Two Plans Officers (One per shift)*

J-4

- J-4 Officer*
- Deputy J-4
- Strategic Mobility Officer*

J-6

- J-6 Officer
- Two, Two-man satellite communications teams

Special Staff

- SJA (important to immediately negotiate SOFA if one does not exist)*
- Surgeon (Preferably environmental health specialist)
- Contracting Officer*
- Procurement Officer*
- Headquarters Commandant and two enlisted assistants
- Public Affairs Officer

* Source from JTF Augment Cell if time permits

NOTE: This recommended staff is approximately the same size as the one sent to Bangladesh, but its configuration has been modified based on SEA ANGEL lessons learned.

FIGURE 6

**SUGGESTED COMPOSITION OF A HUMANITARIAN CONFIGURED JTF STAFF
IN AN AUSTERE ENVIRONMENT**

COMMAND SECTION

- Commander
- Aide
- Deputy Commander*
- Chief of Staff
- Enlisted Clerical Support (2)

J-1

- J-1 Officer*
- Deputy J-1
- Personnel Officer
- Enlisted Personnel (1 senior, 2 junior)

J-2

- J-2 Officer*
- Deputy J-2/Counterintelligence Officer
- Assessment Section
 - * Civil Affairs Officers (2)#
 - * Collection Specialists (2)
 - * Analysts (2)*
 - * Production Specialists (2)*
- Enlisted Clerical Support (4)

J-3

- J-3 Officer

- Deputy J-3*
 - Operations Section
 - Enlisted Ops Chief
 - * Reports Officers (2)*
 - * Reports Clerks (2)
 - * Watch Officers (4)
 - * Enlisted Watch Clerks (4)
 - Plans Section
 - * Plans Officers (2)*
 - * Plans Clerk (1)
 - Liaison Section
 - * Embassy Liaison Officers (2)
 - * Host Nation Liaison Officers (preferably FAOs)#
 - * Two liaison officers for each other agency deemed necessary (Allied forces etc.)*
 - Air Section (Air Liaison Officers from Air Force Component)#
- J-4
- J-4 Officer*
 - Deputy J-4
 - Strategic Transportation Cell (6 Personnel)#
 - Engineer Officer
 - Civil Engineer*
 - Contracting and Procurement Cell (4 personnel)*
 - Enlisted support (6 personnel)
- J-6
- J-6 Officer*

- Deputy J-6
- Computer Support Cell (4 personnel)*
- Communications officer* and assistant
- WWMCS Officer*

SPECIAL STAFF

- Surgeon and environmental health cell (4 personnel)*
- SJA and assistant*
- Area expert (preferably FAO to act as Pol-Mil advisor)#
- Public Affairs Section
 - PAO
 - Deputy PAO*
 - Escort Officers (2 minimum; more if multiple site involved)
 - Enlisted Administrative support (2 minimum more if multiple sites involved)
 - Combat Camera Team in support of PAO if one is provided

SUPPORT SECTIONS

- Deployable Communications Cell (Personnel to man three watch sections)#
- Deployable WWMCS (If deemed necessary; 3 watch sections)#
- Aid Station
- Headquarters Commandant Section (with security as deemed necessary)

NOTES: This organization is based on the Sea Angel Dhaka model with modifications based on lessons learned. Each situation will

be unique, and modifications will be required.

* denotes personnel from the Deployable Joint Task Force Augmentation Cell.

denotes external augmentation from sources other than JTFAC but that should be pre identified and trained in a manner similar to the augmentees.

FIGURE 7

CINCPAC JOINT AUGMENTATION TEAM TRAINING PLAN

PRESENTATION 1: JTF CONCEPT OF OPERATIONS AND TRAINING PLAN

- Objectives: Overview of concept

**PRESENTATION 2: DEPLOYABLE JOINT TASJK FORCE AUGMENTATION CELL
CONCEPT AND STRUCTURE**

- Objectives:
 - * Typical JTF structures
 - * Command relations
 - * DJTFAC packaging
 - * JTFAC capabilities
 - * Lessons Learned

PRESENTATION 3: JOINT INTELLIGENCE

- Objectives
 - * Current Intell brief with emphasis on PACOM hot spots
 - * Intell support for JTF
 - * Interface with PACOM intell architecture
 - * Non traditional intell collect activities
 - * Lessons learned

PRESENTATION 4: JOINT LOGISTICS

- Objectives
 - * Typical logistics issues
 - * Cross leveling requirements
 - * Host Nation Support

FIGURE 7 (CONT.)

- * Finance, medical requirements

- * Lessons Learned

PRESENTATION 5: COMMUNICATIONS

- Objectives

- * Communications nodes

- * DJTFAC organic communications

- * Genser vs WMCCS

- * Lessons Learned

PRESENTATION 6: FLY-A-WAY KIT

- Objectives

- * Joint Component pubs

- * USCINCPAC INSTRUCTIONS

- * Preformatted messages

- * Computers

- * Checklists

- * Phone books

FIGURE 8

MAGTF INTEGRATION TEAM TRAINING SYLLABUS

- Lay down of organizations; joint, amphibious, and generic
- Marine Expeditionary Force Command and Control
- Intelligence Preparation of the Battlefield and MAGTF Intelligence
- MAGTF Planning
- Build up of forces
- Communications
- Battlefield Geometry
- Targeting
- C3CM/EW
- Amphibious Warfare
- MPF/AVB
- Mobility and Movement Control
- Medical Regulating
- JTF Component Functioning

FIGURE 9

- Incorporate two tier command and control concept
- CJTF as the employing headquarters
- Emphasize readiness for likely low-to-mid intensity regional contingencies
- Use simulations to train the designated CJTFs, CINCPAC staff, and service component staffs (work two contingencies simultaneously where possible)
- Plan for first use in Tempo Brave 92

FIGURE 10

DHAKA CELL DECISION MAKING FLOW

- 0930 - Daily meeting of Coordination Cell to include representatives from NGOs, U.S.A.I.D., Bangladesh Armed Forces, and Government of Bangladesh chaired by Brigadier Shaffat acting as the Prime Ministers.

* All parties lay out transportation needs and estimated priority

* U.S. lays out availability of lift availability

* If conflicting priorities existed, Brigadier Shaffat made the final decision on prioritization

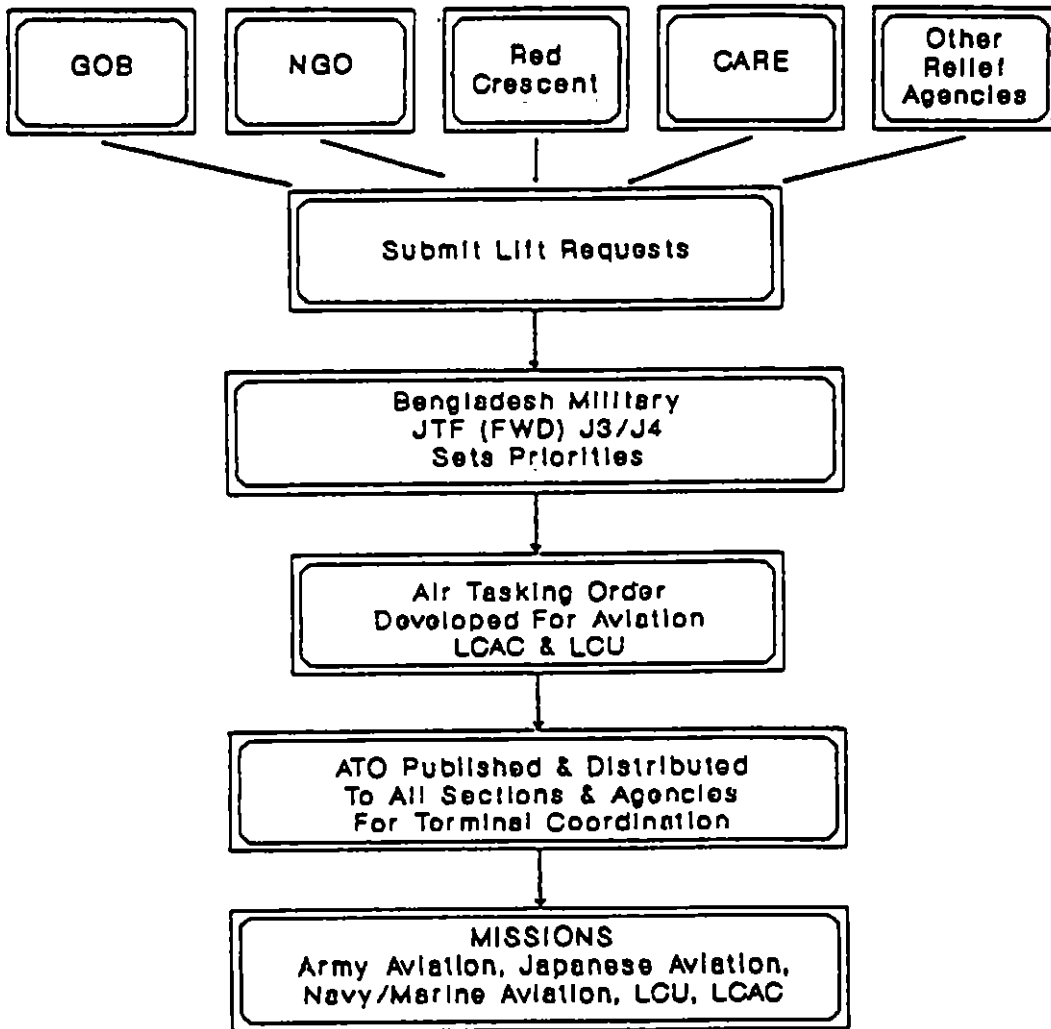
- 1100 - JTF representatives return to JTF Command Post with information.

- 1500 - Next day's fixed wing ATO published for C-130's and USMC

C-12

FIGURE 11
CHITTAGONG MODEL

Chittagong Model



NOTES

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3. Ibid., p. 1.
4. U.S. Naval War College, "EXECUTIVE SUMMARY: 1991 GLOBAL WAR GAME" (U) (Newport: 26 August 1991), p. 2.
5. Spotts, p. 1.
6. JTF Sea Angel, "J-3 Briefing Notes" (U), n.p. 12-28 May 1991. (not numbered).
7. Ibid., (not numbered).
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16. JTF Sea Angel J-3 Briefing Notes, (not numbered).
17. Ibid., (not numbered).
18. Ibid., (not numbered)
19. JTF Sea Angel, "JULLS J-6 Narrative" (U), n.p. June, 1991, p.
20. JTF Sea Angel Message 220353Z May 91
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22. Ibid., (not numbered)
23. Ibid., (not numbered)

24. Ibid., (not numbered).
25. Ibid., (not numbered).
26. Ibid., (not numbered).
27. JULLS Narrative input for JTF (FWD) CHITTAGONG
28. U.S. Embassy Dhaka Message 161158Z June 91
29. Interview with BGEN T.- Gill, USAF, Deputy J-3, PACOM, Honolulu, Hi: 7 October 1991.
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35. Gill Interview.

36. Interviews conducted with members of the augmentation cell and JTF nucleus staff following the operation.

37. JTF Sea Angel J-3 Briefing Notes, (not numbered).

38. Joint Task Force Simulations Briefing, pp. 1-3.

39. JTF Sea Angel Briefing Notes, (not numbered).

40. Ibid., (not numbered).

41. Ibid., (not numbered).

42. This comment was made to the author by an AID official with considerable experience working with NGOs.

43. JTF Sea Angel Briefing Notes, (not numbered).

44. Ibid., (not numbered).

45. Estimate provided by the USMC Liaison to the Military Airlift Command, Scott Air Force Base, Illinois.

46. JTF Sea Angel J-3 Briefing Notes, (not numbered).

47. Ibid., (not numbered).

48. Ibid. (not numbered).

49. Interview with Major David Yaugh, USAF, PACOM JTF Augmentee, Honolulu, Hi: 8 October 1991.

50. Interview with Commander Joseph Levy, JTF Sea Angel J-2, Honolulu, Hi: 9 October 1991.

51. This practice is standard for UN peacekeeping staffs.

52. Interview with LTCOL James Vance, JTF Sea Angel PAO, Washington D.C.: 22 October 1991.

53. Ibid.

54. Reflected in CINCPACFLT JULLS input and in Vance interview.

55. Ibid.

56. Ibid.

57. Ibid.

58. Ibid.

59. Based on review of JTF Augmentation Cell Table of Organization.

60. Vance interview.

