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ATTACK CARRIERS AND THEIR FUTURE (U)

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## Abstract of

## ATTACK CARRIERS AND THEIR FUTURE

A look into the foreseeable future seems to show that the United States is going to be faced with wars of national liberation in its fight against Communism. Since much of the battle will take place on the diplomatic front, it is important the United States possess a weapons system that is not only a significant force but one that is capable of extreme selectivity. The attack carrier offers the answer to the dilemma that will face the country.

The attack carrier is examined in the light of past events, with emphasis on the fact that its usefulness came about as a by-product of being on station as part of the strategic forces. Next, the limited war capabilities of the attack carrier are explored in relation to the present conflict in Vietnam.

The Polaris fleet has freed the carrier from a first strike nuclear commitment, allowing much more flexibility in carrier deployment. A new deployment plan is offered to meet future needs.

Finally, the carrier force itself is examined to determine composition and show areas of improvement.

The conclusions reached indicate that the attack carrier will continue to be a vital weapons system for use by the United States.

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## INTRODUCTION

Since the close of World War II the United States has been engaged in a battle with the forces of communism in varying degrees from open conflict to the subtleties of cold war maneuvering. As a result of a nuclear stalemate, the Communists seem to have adopted as their present and future modus operandi the support of wars of national liberation as a means for advancing their ideology. In order to combat this threat, the United States must assume a policy of flexible response. The purpose of this paper is to designate the means best suited to effect such a response.

The United States is basically insular and heavily dependent upon sea power to keep the lines of communication open to allies across the seas. The prime weapon available for this purpose is the attack carrier. A look at history will show that the carrier has proven a valuable tool in introducing United States influence in the many crises which have arisen in the past 15 years. The carrier represents a weapons system that is capable of action across the entire spectrum of warfare; it can exercise extreme mobility in moving from one crisis to the next around the globe without leaving millions of dollars of fixed support facilities behind. However, the planners of the future must look ahead after Vietnam for a more effective and flexible deployment policy for carrier forces. The

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rounding out of the United States' strategic forces with the Polaris system allows for such a development in deployment. For instance, it would appear advantageous to patrol the rimland of Africa and Asia, the area that breeds most of the crises.

A new era is opening for the attack carrier, and the strategists must look to bold new ways of operating to ensure the maximum utilization of the carrier's capabilities.



## ATTACK CARRIERS AND THEIR FUTURE

### CHAPTER I

#### THE NATURE OF THE THREAT

Roosevelt returned from Yalta confident that a solid foundation had been secured in winning the war and winning the peace. Speaking before Congress on March 1, he earnestly declared, "I may say we achieved a unity of thought and a way of getting along together. . . . Never before have the major Allies been more closely united--not only in their war aims but also in their peace aims." His report to the nation bristled with optimism.<sup>1</sup>

Immediate Postwar Developments. This statement reflected the feelings of the leaders and also the people of the United States as the Second World War drew to a close. The air was filled with optimism and the United Nations organization was being offered as the panacea to cure the ills of the world. When the war ended, most Americans considered that their contribution to globalism had been made and it was now time to get back to the business of running their country.

It was not long, however, until it became evident that the Russian "bear" was not domesticated and that Europe, and even Western civilization, was at stake. In a speech at Westminster College, Fulton,

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<sup>1</sup>Jules Davids, America and the World of Our Time, 2d ed. (New York: Random House, 1964), p. 357-358.

Missouri, on 5 March 1946, Winston Churchill said: "From Settin in the Baltic to Trieste in the Adriatic, an iron curtain has descended across the Continent. Behind that line lie all the capitals of the ancient states of central and eastern Europe."<sup>2</sup>

The United States was being forced back into the world spotlight. Early in 1947 the United Kingdom sent a note to the United States saying that the British could no longer support the struggle of the Greek government against the Communist rebels. This note ended the era of Great Britain's role as the arbiter of the world situation. It was now up to the United States to answer the call and take its place in world diplomacy as one of the two most powerful nations remaining. The United States answered the call with the Truman Doctrine, followed by the Marshall Plan in order to get Europe back on its financial feet.

In the next few years the Russians continued to consolidate their holdings in Eastern Europe.

Of all the Eastern European countries, Czechoslovakia had been the most democratic before the war. Her high standard of living and liberal tradition, however, did not prevent her from becoming a Soviet satellite in February, 1948, when the Communist party forced President Eduard Benes to agree to a reorganization of the government on a pro-Communist basis. Shortly afterward, Foreign Minister

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<sup>2</sup>Winston L. S. Churchill, "Mr. Churchill's Address Calling For United Effort For World Peace," The New York Times, 6 March 1946, p. 4:5.

Jan Masaryk was found dead outside of his office window. President Benes resigned on June 7. These events served to strengthen Western convictions that strong steps were necessary to contain Communist expansion.<sup>3</sup>

It was also in 1948 that differences arose in Berlin and, as a result, Russia blockaded the land routes into the city in June of that year. The United States again responded, and a massive allied airlift was organized to fly in the necessities of life to the people of Berlin.

During the airlift the United States disregarded one of the basic tenets of its foreign policy which had been put forth by President Washington in his Farewell Address. America participated in the establishment of the Atlantic Treaty Organization and entered into an entangling alliance. The next month, May 1949, the Berlin blockade was lifted after the West had successfully demonstrated its determination to hold the line against the pressures of world communism.

In the East, matters had taken a less successful turn. The government of Chiang Kai-shek was overcome by the Chinese Communists and was forced to leave the mainland and retire to the island of Formosa in December 1949. There he set up his Nationalist government headquarters.

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<sup>3</sup>Hans L. Trefousse, The Cold War: a Book of Documents (New York: Capricorn, 1966), p. 78.

The Korean War. Korea was another dichotomized nation in the Far East. The Great Powers were unable to agree on any sort of unification plan for this country, which had been divided at the end of World War II. In 1949 the United States recognized the government of an independent South Korea. Not to be outdone, the Russians soon followed this with the recognition of North Korea.

In an address before the National Press Club in Washington on 12 January 1950, Secretary of State Dean Acheson spoke of an American defense perimeter running from the Ryukyus to the Philliping Islands.<sup>4</sup> Critics charged afterward that his failure to include Korea specifically might have encouraged the Communists to launch their attack upon South Korea a few months later.<sup>5</sup>

On 25 June 1950, the North Korean military forces crossed the thirty-eighth parallel in an armed invasion of the South. The Security Council was able to take action and call on the members to furnish troops to halt the aggression because of the fact that the Russians had walked out of the Council at an earlier date and were still boycotting the Council at the time of the resolution.

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<sup>4</sup>Walter H. Waggoner, "Acheson Says U.S. Counts on Chinese Anger at Soviet for Land Seizures in North," The New York Times, 13 January 1950, p. 2:3.

<sup>5</sup>Trefousse, p. 152.

The policy governing the conduct of the Korean War was prophetic of things to come. The course of the war--especially after the setback at the Yalu River in November, 1950--was shaped largely by political, rather than military, considerations.<sup>6</sup> In the early stages the United Nations forces were pushed back to a small perimeter around Pusan. An amphibious landing at Inchon got a counterattack under way and the North Koreans were pushed back to the borders of Red China. At this point, vast numbers of Chinese Communist "volunteers" crossed the border and drove the United Nations forces back to the area around the thirty-eighth parallel. At this point the war bogged down into somewhat of a stalemate centering around the prewar boundary. The importance here is that for the first time the American people were confronted with a situation that involved outright combat, but where victory was to be something less than total defeat of the enemy. In 1953 truce was finally concluded in Korea, but the United States was left with the need to determine a new and effective foreign posture.

Military Policies of the United States. John Foster Dulles, the new Secretary of State, seemed to give American diplomacy a new look when, in an address before the Council on Foreign Relations on 12

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<sup>6</sup> Davids, p. 440.

January 1954, he spoke of the need for reliance on "massive retaliatory power."<sup>7</sup>

The build-up during the Korean War and the strengthening of the NATO military forces were causing an economy-minded people to look for some means of defense other than supporting large conventional armed forces. The United States sought after 1953 to narrow its military defense spending, placing a greater reliance on nuclear retaliatory power. It also tried, at the same time, to find a solution to end the atomic armaments race. However, while the Soviet Union continued to demand an unconditional renunciation of nuclear and other mass-destruction weapons, the American government insisted that disarmament could not be undertaken without an effective inspection system. Because of the irreconcilable positions on the question of control, an international stalemate remained to plague the world.<sup>8</sup>

All through the 1950's the United States proceeded to "put all its eggs in one basket" under the form of massive retaliation. Although this policy appealed to cost-conscious statesmen, in the long run it meant little.<sup>9</sup>

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<sup>7</sup>"Text of Speech by John Foster Dulles," The New York Times, 13 January 1954, p. 2:2-8.

<sup>8</sup> Davids, p. 478-479.

<sup>9</sup> Trefousse, p. 171.

Many military men spoke out against this doctrine, but they were all largely ignored. The government as a whole still embraced the policy that any limited war was bound to escalate into nuclear war, and therefore all that was needed to deter limited war was a strong nuclear force.

General Maxwell Taylor was a vigorous opponent of this premise; he stated in his book The Uncertain Trumpet:

. . . it was probably natural for the U.S. to do most of its defense spending for air power and atomic weapons systems. It is true that current events, such as the Communist-led civil war in Greece, the Communist coup in Czechoslovakia and the Russian blockade of Berlin, should have been reminders of the need to meet challenges to which the atomic bomb would be no reply. However, the lesson, if perceived, was not effective and conventional forces were sacrificed to the needs of atomic power.<sup>10</sup>

The nuclear deterrent system did work as it applied to possible attack against the mainland of the United States; but it was to fall short in successfully stopping the Communist probes that were to occur during the next 12 years. Crises flared in the Formosa Strait, Berlin, the Middle East, the Congo, and Cuba--just to name a few instances. These actions all took place under the threat of "massive retaliation." Some new thinking seemed to be needed.

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<sup>10</sup> Maxwell D. Taylor, The Uncertain Trumpet (New York: Harper, 1959), p. 13.

In a major policy speech delivered on 6 January 1961, in which the methods and objectives of world communism were set forth, Nikita S. Krushchev had this to say regarding war:

There have been local wars and they may occur again in the future, but opportunities for imperialists to unleash these wars too are becoming fewer and fewer. A small imperialist war, regardless of which imperialist begins it, may grow into a world thermo-nuclear rocket war. We must therefore combat both world wars and local wars.<sup>11</sup>

By local wars he meant such actions as the Suez Crisis in 1956. He identified the Indochinese and Algerian wars as "liberation wars," and stated:

Liberation wars will continue to exist as long as imperialism exists, as long as colonialism exists. These are revolutionary wars. Such wars are not only admissible but inevitable, since the colonialists do not grant independence voluntarily. Therefore, the peoples can attain their freedom and independence only by struggle, including armed struggle.<sup>12</sup>

With this proclamation that wars of "national liberation" were just wars came the final collapse of the American "massive retaliation" policy. This policy no longer served the need for which it was designed.

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<sup>11</sup>"U.S. Congress, Senate, Committee on the Judiciary, Analysis of the Krushchev Speech of January 6, 1961 (Washington: U.S. Govt. Print. Off., 1961), p. 64.

<sup>12</sup>Ibid., p. 64.



A strong nuclear deterrent would not suffice. The United States must also be prepared militarily to counter limited armed aggression.<sup>13</sup>

Limited War Capabilities. With the advent of the Kennedy Administration in 1961, the country's limited war capability was assessed and found wanting. Secretary of Defense Robert S. McNamara said:

The defense establishment we found in 1961 was based on a strategy of massive nuclear retaliation as the answer to all military and political aggression . . . .

The non-nuclear force, we found, was weak in combat-ready divisions, weak in airlift capacity, weak in tactical air support. The counterinsurgency forces were, for all practical purposes, non-existent. We believed that the United States must be supreme in all types of aggression across the entire spectrum of modern day conflict.<sup>14</sup>

Again, in 1964, McNamara stated:

The principal threat with which communism now confronts us is not nuclear war but a series of small aggressions each carefully calculated to stay below the threshold of all-out war. To counter this, we have sought flexible usable forces, enabling us to respond with appropriate power to political and military aggression at whatever level it may be attempted.<sup>15</sup>

Although there are differences of opinion regarding the choice of weapons, it appears to be the conclusion of most of the experts that as

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<sup>13</sup>Lyndon B. Johnson, "Our World Policy," Vital Speeches, May 1964, p. 419.

<sup>14</sup>Robert S. McNamara, "U.S. Defense Policy, a Balanced Military Force," Vital Speeches, 15 September 1964, p. 710-711.

<sup>15</sup>Robert S. McNamara, "We Are Stronger than Russia," The Saturday Evening Post, 7 November 1964, p. 17.

long as the balance of terror prevails, then the type of warfare that will be with us is limited warfare or wars of national liberation. This does not mean that America can afford to relax in the area of strategic deterrence, but it must be realized that this is not sufficient in itself. The belief that the United States will use its nuclear might must be a credible one. It has become obvious in looking at the crises that have taken place since the close of World War II that in most of these America has not been willing to use its nuclear force. When the enemy finds this out, then he is free to move as he desires just short of provoking retaliation. Since the United States' provocation level is quite high, it is necessary to maintain some military power that is short of total destruction and not strictly limited by nuclear considerations.

Summary. An attempt has been made to show that a threat exists to the United States and that this threat takes other forms than direct confrontation on a nuclear scale with Russia. Although it is still necessary to maintain a strategic nuclear capability, it is also vital to develop a "flexible response" capable of handling the brush-fire wars that will be cropping up in the future.

CHAPTER II

SEA POWER AND THE CARRIERS

We have too long taken for granted the doctrine of the freedom of the seas. . . . It is not a natural condition, and no divine authority guarantees the sea's continued use to us. In reality, the sea is free only because free men have chosen to make it so, and it will remain free only so long as free men have the strength and resolution to resist those who would have it otherwise.<sup>1</sup>

The above words of Admiral Thach thrust a challenge at the free men of the world and especially those that come from nations with sea faring histories. It is very easy in this age of airplanes and space flights to bypass the need of free sea lanes and just what they can mean to the implementation of national will or even national survival. This chapter will deal with the relations of sea power to our national strategy and how the aircraft carrier plays a major role in pursuing this strategy.

United States Control of the Seas. In any discussion concerning sea power and the United States it becomes very important first to realize the insular status of the country. The Eurasian and African

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<sup>1</sup>John S. Thach, "In Freedom of the Seas," Navy (U.S.), June 1963, p. 15.

land mass lends itself readily to the movement of land forces, and the nations which reside in this area can bring their power to bear upon one another with very little regard to sea power. On the other hand, the United States must look to the sea for an approach to the other land areas of the world.

Consider, for example, the difference in the ability of Soviet Russia and the United States to project national power. We live in fear of the destructive power of Soviet missiles, yet it is obvious that the Russians are able to project destructive power alone by this means. When projection of constructive or restrictive power, on a selective basis, is planned, the United States, controlling the seas as she does, is able to project her power in a specific and particularized manner. Russia, on the other hand, has been seriously limited in such projection of power in supporting Egypt, Guinea, and most particularly Cuba. By application of a small amount of restrictive seapower, in a limited area, the United States was able to completely cut off Russia's missile assistance to Cuba.<sup>2</sup>

The United States dependence on sea power makes the role of the Navy of the utmost significance. The United States Navy exists for two primary reasons. First, in a cold war the Navy's task is to support the nation's foreign policy in the widely separated portions of the world. Second, in the time of actual conflict the Navy's job is to control the seas for the use of the United States and deny the use of

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<sup>2</sup>Edward F. Hayes, "Sea Power and National Greatness," Lecture, U.S. Naval War College, Newport, R.I.: 25 and 30 October 1963, p. 36-67.

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the sea to the enemy. This includes many highly divergent tasks. The Navy must control and protect the sea approaches to the Western Hemisphere; provide the major avenue of support for deployed ground and air forces; maintain lines of communication and supply with allied nations; and finally maintain contact with United States overseas sources of raw materials.<sup>3</sup>

In the military sense, the most significant contribution of sea power has been to provide the mobility necessary to move the armed forces of the Free World. This mobility has provided the Free World with the option of moving troops and supplies to any portion of the vast periphery of the Communist Bloc where crises might erupt; and with the rapidity of communication which today's technology affords, these trouble spots are known almost immediately. It is also interesting to note that this category of mobile power is almost exclusively a Western preserve. The flexibility provided by sea power has had a profound influence on Western strategic thinking, since this same flexibility is not available to the Communists.<sup>4</sup>

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<sup>3</sup>U.S. Navy Dept., Aircraft Carriers (Washington: 1959), p. 1.

<sup>4</sup>Francis X. Brady, "The Influence of Seapower on the Current World Crisis," Lecture, U. S. Naval War College, Newport, R.I.: 21 May 1963, p. 5.

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This control of the seas gives the United States an integration of land and sea power which no other nation can match. Since America is the only power possessing significant carrier task forces and amphibious forces, it is almost uniquely able to move preponderant military strength rapidly to almost any portion of the earth.

If control of the seas is so important, what tool is best suited to maintain this control? What weapons system is available to insure the desired results?

Carrier Role in Maintaining Control of the Seas. It is worthy to note that American experts are joined by both British and Soviet counterparts in agreeing on the indispensability of highly developed sea power. The United States view is that the offensive aircraft "on the spot" is the essential element of sea power; and in view of the military vulnerability, political instability, and other disadvantages of overseas bases, the carrier is the best solution for maintaining freedom of the seas and of projecting United States power in areas such as Southeast Asia.<sup>5</sup>

For years aircraft carriers have been pictured in an "either/or situation," when comparing them with the rest of our strategic forces.

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<sup>5</sup>"The Ocean Arena," Interavia, May 1962, p. 561.

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The proponents of carrier air power were forced to equate the carriers with missiles and land-based bombers used in our deterrent force. The real value of the carriers became evident only more or less as a by-product of their existence in the strategic force.

. . . The strategic asset of aircraft carriers, on the other hand, I have always felt is a collateral U.S. capability in the strategic mission. . . . The carrier, in an operating fleet, is an extremely versatile system with capabilities across the full spectrum of conflict from strategic through limited to sublimited or cold war situations.<sup>6</sup>

The Carrier in International Crises. While the carriers were on the line for their deterrent mission, numerous small trouble areas erupted around the world. Many of these trouble spots concerned themselves with no more than a suspected overthrow of the government in power, while others took the shape of outright armed conflict. The government would look for some form of military force to show the interest of the United States or enforce its will, and very often a rather obvious choice came to the forefront--the aircraft carrier. This weapons system was capable of exerting the exact amount of force required by the situation. If a show of the flag was all that was necessary, then the carrier could do this very easily without

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<sup>6</sup>C. W. Borklund, "The Challenge to Good Judgement," Armed Forces Management, September 1962, p. 13.

encroaching on the sovereignty of the subject nation or of any other nations of the world. There was no need for overseas bases, landing rights, overflight rights, or billeting of soldiers on foreign soil. In many cases, all the power and capability that were required were contained right in the attack carrier striking force.

Again, it is mentioned that the carrier is not being offered in place of any other weapons system but merely as a very convenient and selective tool available to the government of the United States. The carrier has proven its worth many times over through its use in past crises and it is now up to the United States to recognize this usefulness and plan for this weapons system as an entity in itself and not as a by-product of some other capability.

In his article "Carrier Employment Since 1950," Admiral McDonald says:

The history covering a decade and a half, suggests the following conclusions about attack carriers:

They have typically been on the scene when needed.

They have been directly involved in the majority of post-World War II crises.

They have been ideally suited for the projection overseas of U.S. military power either discreetly or ostentatiously.

They have been adaptable to a wide range of missions.



Carriers have always been used advantageously by the U.S.; it is difficult to conceive of accomplishing the same results with fewer.<sup>7</sup>

Example after example can be cited where the application of power provided by the attack carrier was utilized and to a very great extent was the deciding factor in bringing the crisis to a satisfactory conclusion. The fleet was on the scene in both Lebanon and Quemoy, and although not a shot was fired, the presence of the force exercised a decisive effect on the outcome. The restraint with which a naval force of great potential could be employed was demonstrated. These were cases where no other force could have been used to the same advantage.<sup>8</sup>

The question may now be asked, Is the carrier force as effective from an economic standpoint?

The Economics of the Carrier. In the era of cost-effectiveness and a soaring budget, some thought must be given to the cost of the carrier and its supporting fleet. It is very true that the cost for a present-day carrier is staggering, but a comparison must be made with land-based

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<sup>7</sup>David L. McDonald, "Carrier Employment since 1950," United States Naval Institute Proceedings, November 1964, p. 33.

<sup>8</sup>Edward F. Baldrige, "Lebanon and Quemoy--the Navy's Role," United States Naval Institute Proceedings, February 1961, p. 94-100.

tactical air to reach an understanding of the expense. A tactical aircraft study has been conducted by the Navy and it shows that the cost of land-based tactical air and carrier-based tactical air is approximately the same, when all the cost factors are taken into consideration.<sup>9</sup> The important point here is that this power is not limited to one portion of the world by its need for fixed support facilities. Nor is it subject to loss when some country flexes its sovereignty and demands the withdrawal of United States forces. The large amounts of money poured into developing airfields for the present conflict in Southeast Asia will bring little return on a crisis which develops someplace else in the world. This is not so with the carrier forces. They will be free to proceed to a new trouble spot when their mission is completed in Southeast Asia. An attack carrier is an expensive weapon system and the fact that our civilian and military planners are willing to make such an expenditure shows their great faith in this class of ship. This faith is not misplaced, because dollar for dollar this weapons system offers the most in striking power and versatility.

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<sup>9</sup>David L. McDonald, "The Role of the Navy in the Formulation and Implementation of National Strategy," Lecture, U. S. Naval War College, Newport, R.I.; 12 November 1964, p. 7.

Carrier Capabilities. Among the many reasons for the assignment of such a prominent offensive role to the attack carrier, the most important is that it is an effective blending of sea power and the manned aircraft. Man is still the only means to guarantee the selectivity that is so critical to limited war environments.<sup>10</sup>

Finally, it must be remembered that the present-day attack carrier packs a tremendous nuclear punch. Since the advent of the Polaris submarine, the carrier has been somewhat freed from its nuclear strategic commitment, but this does not mean that the nuclear capability should be stripped from the carriers. This would smack of the same parochialism of purpose and poor reasoning that saw the carriers only as an instrument for strategic deterrence. Flexibility is the key to preparedness in the modern world, and keeping a nuclear capability is well worth the effort. It should be emphasized that this mission is of a secondary nature, and the major amount of effort should be directed toward the use of conventional weapons. However, the carrier's nuclear capability, coupled with its tremendous conventional potential, gives the United States a weapons system that is extremely useful throughout the entire spectrum of conflict--total and limited.

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<sup>10</sup>Lawrence Heyworth, Jr., "CVA: Attack Aircraft Carrier," Sperryscope, First Quarter 1966, p. 11.

### CHAPTER III

#### LIMITED WAR AND THE CARRIERS

The war in Vietnam once again has proved the value of a maritime strategy. Had the United States not maintained a great Pacific Fleet, based on the hardcore strength of carrier striking forces, this nation would have been unable to deal with Communist land power.<sup>1</sup>

The carrier forces of the Navy found themselves in trouble in the period of the concepts of massive retaliation and deterrence. The carriers were costly and many felt that the money would have been better spent on bombers and missiles. The real value of the carriers was re-discovered as a result of their deployment as part of the strategic forces.

The policy of massive retaliation was starting to crumble as a result of the many probes that had been made by the Communist powers. These probes were all carefully calculated and kept to a level that would not provoke American nuclear retaliation. There comes a time, however, when such offenses must lead to less destructive response. A major lesson that Americans have learned in Indochina, as they did in Korea, is that, unless they have the will and capacity to support local defense

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<sup>1</sup>Anthony Harrigan, "Viet Nam Seen Proving Need for a Genuine Maritime Strategy," Navy (U.S.), September 1966, p. 6.

by limited war, their ability to drop bombs on China and the Soviet Union will not be sufficient to contain communism in the areas which they are unwilling to defend at the cost of total war.<sup>2</sup>

Characteristics of Limited War. A look at some of the characteristics of a limited war will point out what is needed to conduct such an action. The events which take place in the very beginning are often deceptively small. They can range from an attempted coup to guerrilla action by rebel forces. In many cases the initial actions performed at this critical time have a disproportionate effect on the events which follow. It has been proven time after time that a show of force from a more stable power at the time of great instability in the country concerned is enough to bring the people back to their senses and head off the impending trouble.

Forces Adapted To Limited War Situations. What forces are available to the United States government for use in this type of situation? Obviously, this is not an occasion which calls for the launching of America's strategic missiles. Its strategic bomber force is almost instantly disregarded also. Troops can be moved into the area, but this

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<sup>2</sup>Robert E. Osgood, Limited War: The Challenge to American Strategy (Chicago: University of Chicago Press, 1957), p. 223.

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may blow up a situation for which a peaceful solution is possible. Land-based tactical air can be flown in to serve as an indicator of United States intentions; but where do they land? The areas where conflicts such as the limited war are destined to erupt are around the vast rimland of the Eurasian continent, Africa, and South America. Quite often there will not be the facilities nearby that are necessary for handling modern jet aircraft. Even if there are the fields required, they probably will not be available in sufficient quantity. One other big factor is that if the field that is intended for use lies within the boundaries of the country involved in the conflict, then permission must be gained from that country to land the aircraft there. This permission may not be an easy thing to come by. The only other alternative is to base the aircraft in an adjacent country. This can also cause a great deal of trouble, because, when a situation like this arises, very often the neighboring countries want to be extremely careful, so that they will not be drawn into the conflict themselves. They are generally extremely reluctant to permit the entry of a large military force.

What does the government have to call upon when it has seen fit to disregard the use of any of the above forces mentioned? The carrier striking force provides an excellent solution to the problem. This force, which very often is already on patrol nearby, can be moved to the area with a minimum of turmoil. Since its highway is the international waters

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of the world, no arrangements have to be made with other countries concerning the movement of this force into the desired area. The force can remain in international waters and out of sight of most of the local population. This is a rather important capability because very often the presence of foreign troops in a country is counter-productive. It must be remembered that the carrier possesses a wide range of options available. These include a spectrum running from just moving closer in to the shore so it can be more readily seen, to nuclear warfare.

Another unique feature of the carrier strike force is that it is virtually self-supporting, and when the crisis is over, the whole force can move quickly away without leaving millions of dollars of equipment and facilities behind. In the days of gold shortage and dollar outflow problems, this one characteristic grows in importance. Most of the cost of the force is shuttled back into American hands, and the carrier force does not represent a continuous drain on the United States' gold balance.

The unrestricted sea mobility of the carrier force allows it to move from trouble spot to trouble spot without leaving behind large amounts of disfavor caused by placing United States troops in a foreign country. The sea can provide the route to most of the world population. Over half of the people of the world, together with their industrial support, are located within 50 miles of the sea. Of the 81 cities of the world with a population of one million or more, 47 percent abut the very rim of

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the sea. Exclusive of the U.S.S.R. itself, 90 percent of the land area of the world lies within 500 miles of the coastline; within this area, of course, are found the vast percentage of all of the worthwhile targets.<sup>3</sup>

Chief of Naval Operations, Admiral David L. McDonald made the following statement about United States carrier forces:

Political and military alliances and non-alliances don't affect us too much. Our forces are mobile, flexible and self-supporting. Bases on foreign soil are not essential. Overflight rights or pre-positioning is unnecessary. We can have a flexible response because we are mobile and free of restraint to move quickly into an area of threat. We have an inherent ability to vary the proximity of our presence; we can make these moves unheralded, without any pre-arrangements or agreements which invariably become necessary if any route but the sea is chosen.<sup>4</sup>

Some more insight into the capabilities of the attack carrier in a limited war situation can be gained by studying the role of the carrier in the present conflict in Vietnam. For comparative purposes, the employment of land-based aircraft will be surveyed first.

Air Power in Vietnam. Southeast Asia can certainly be classed as an underdeveloped area. Since it falls into this category, it also has all the problems inherent in the classification. There is an absence of

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<sup>3</sup>McDonald, "The Role of the Navy in the Formulation and Implementation of National Strategy," p. 20.

<sup>4</sup>Ibid., p. 18.

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facilities capable of handling the modern weapons of war. Consequently, when the call went out from the President to increase the air power in the area, the United States ran into many problems on just where to put the aircraft. For example, in August of 1964 there were two attack carriers in the South China Sea and less than 75 tactical aircraft land-based in Southeast Asia. On about 1 August land-based aircraft were deployed to increase the United States air posture in Southeast Asia under a plan that would result in a fivefold increase in just a few weeks. After negotiations with the Thais to overcome some political objections, jet fighter-bombers, interceptors, and reconnaissance aircraft were moved to the area. Eleven days later, Commander United States Military Assistance Command Vietnam dispatched word to the Joint Chiefs of Staff that the airfield facilities in Southeast Asia "were saturated and the entire logistics and administrative base had little or no surge capability." By then there were only 150 combat tactical aircraft in South Vietnam and Thailand. Subsequent messages revealed that these aircraft could not be properly defended against air or ground attack, and inadequate logistics and poor maintenance facilities would make a high sustained combat sortie rate difficult to obtain. Military construction was undertaken to alleviate the logistic and base limitations, and in just over a year the number of tactical aircraft was more than doubled.<sup>5</sup>

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<sup>5</sup>Robert E. Warner, "Carrier Strike Force Operations," Lecture, U.S. Naval War College, Newport, R.I.: 31 May 1966. p. 15.

Air Force Secretary Harold Brown was quoted in the Air Force Times as saying, "lack of bases rather than shortages of planes or crews have limited the scope of Air Force operations in Southeast Asia."<sup>6</sup> Consequently, the United States has embarked on a massive building program in the area requiring an expenditure of hundreds of millions of dollars that will most probably be written off as a loss at the end of the war. Present-day air power is extremely costly, and if the United States is to stay at the top, it must be willing to pay the price. One of the advantages of the carriers is that many of them have already served in some of the other crises with which the United States has been confronted, and this service can be used to underwrite some of the cost. The initial expense is high, but when it is amortized over 20 to 30 years' service and many crises, then the cost does not appear so staggering.

Gone are the days of operating aircraft out of a dirt field. The modern planes require large runways and a tremendous amount of support equipment. The fact that most of today's aircraft are jets causes many of the problems. These jets generally weigh too much to consider operations from unprepared surfaces. Even if the ground were able to support the weight, operations would still be almost impossible due to the foreign object damage which is inherent in trying to operate from

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<sup>6</sup>"Lack of Air Bases in SEA Limits Action, Brown Says," Air Force Times, 20 April 1966, p. 3:3.

unprepared surfaces. The fuel requirements of current-day aircraft also create problems. The jets use huge quantities of fuel for which large storage areas and pumping facilities are essential.

All these problems are eliminated with carrier aviation. The aircraft carrier represents a modern airfield, all its support facilities, living quarters for the men, and a storage area for fuel and ammunition. It can operate in the waters off an underdeveloped country's coast and project modern tactical air power over land, regardless of how few facilities are available in the surrounding areas.

The Carrier in Vietnam. The basic concept behind striking force operations is to move into an objective area, launch strikes, and then retire. The situation in Southeast Asia has been something different from this basic concept. Admiral Edward Outlaw, a former CTF 77 Commander, has spoken as follows concerning the operations:

I would like to say at this time that I do not consider our present operations a classic example of the employment of the aircraft carrier or the Fast Carrier Task Force. However, this does not imply that I do not favor using them as we are forced by circumstances to do. I envision the optimum employment of the Fast Carrier Strike Force as a strike and retire proposition--in order to take advantage of undisclosed movement at sea. As we are now operating in the South China Sea, our carriers are for all practical purposes, anchored--as you will see. Our present employment assumes

assumes control of the air, and practically absolute immunity from submarine attack. Certainly we are more "bottled up" than we would like to be.<sup>7</sup>

Present operations consist of having five attack carriers deployed to the Western Pacific (WESTPAC). At any given time two carriers will be operating from Yankee station and one will be operating at Dixie station. The two carriers at Yankee station are primarily concerned with raids into North Vietnam. The carrier operating at Dixie supports the in-country effort with tactical air. Yankee station is in the Bay of Tonkin between Vietnam and the Chinese Communist island of Hainan. Dixie station is further south and not quite as confined. All three of these carriers remain relatively close to station and mount a continuous series of strikes against the objective. The two carriers at Yankee station split the day into 12-hour periods beginning and ending at noon. This way the carriers are able to keep pressure on North Vietnam 24 hours a day. The carrier to the south generally operates only in daylight hours. The sustained level of strike operations taking place from Yankee station represents a difference in kind for the carriers on the line, when compared to the levels of activity during the Korean or Second World Wars. The problems of ship and air wing maintenance and usage rates levied

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<sup>7</sup>Edward Outlaw, "Carrier Striking Force Capabilities," Lecture, U.S. Naval War College, Newport, R.I.: 1 November 1965, p. 8-9.

against the logistics supply lines in WESTPAC are of a new order, apparently considerably in excess of those previously envisaged in military planning. This intensive pace of operations permeates every other area of operational concern, and any consideration of operating problems must be reflected against this predominant factor.<sup>8</sup>

Each carrier is on the line for a period of three to five weeks and then is rotated to a safe area, while its mission is picked up by another carrier taking its place.

The amount of sorties flown and ordnance delivered necessitates a replenishing of either military supplies or aviation fuel almost every other day. The average sortie rate for a CVA at Yankee station is 130 to 150, of which about eighty are actual strike sorties. The rest of the sorties are concerned with such things as fighter protection for the force, tankers, and SAR-oriented missions. The carrier at Dixie station averages about 95 per day; and the vast majority of these are combat missions because there is not the need to provide force protection to the level that it is required at the northern station. Dixie station has even been manned by the USS "Intrepid," which deployed with only attack type aircraft on board.<sup>9</sup>

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<sup>8</sup>"Independence" (Aircraft Carrier CVA-62), Command Debrief for WestPac Deployment, 10 May 1965 to 13 December 1965 (n.p.: 29 January 1966), p. 7.

<sup>9</sup>Warner, p. 17-19.

Navy and Air Force Coordination in Vietnam. One large problem that evolved from the air war in the north was the question of coordination between the Navy and the Air Force. The area of North Vietnam is rather small, and the necessity for adhering to specified targets on an approved list has crowded the skies. The initial solution to the problem was to work out a time-sharing technique which alternated between the two carriers on odd and even days and between the Navy and Air Force in three and six-hour periods. This seemed to be acceptable to the Air Force but caused many problems for the Navy. First of all, the time very often did not allow the maximum use of the carrier aircraft. Only so many aircraft can be launched at a given time, and this did not always fit well into the time-sharing plan. Another important factor was that the carriers were under radar surveillance by the enemy and the allies of the enemy, and when flight operations were not permitted on a continuous basis, it became very easy to tell when the strikes were coming. It is most important in a situation like this to be able to conduct cyclic operations in order to make it a little more difficult for the enemy to know which one of the launches might contain a major strike effort. The carrier is used to a smooth routine of cyclic operations and therefore performs more efficiently. On a strict time-sharing basis, there were many times that the Navy A-6's were forced to stay aboard the carriers

because of conflicts with the Air Force. This aircraft has a very significant night capability, and much valuable interdiction of the enemy was lost because of this conflict of times.

A solution to the problem was finally agreed upon and area-sharing of geographic subdivisions has taken place. This is working out much better for the Navy in that it allows them to smooth over some of the inefficient hills and valleys in flight operations during a time-sharing plan. Continual cyclic operations allow the carriers to avoid developing obvious patterns of strike activity that give the enemy a decided defensive advantage.<sup>10</sup>

Carrier Aircraft Weaknesses. Various reports by Commanders returning from the area indicate that there have been some problems in obtaining maximum performance out of the strike aircraft. Commander Carrier Division Seven had this to say: "National emphasis upon nuclear capabilities through the past ten years has precluded or delayed the development of conventional ordnance and bombing systems that are compatible with modern aircraft or that provide the best selections of weapons for the variety of situations that are encountered."<sup>11</sup> This

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<sup>10</sup>"Independence" (Aircraft Carrier CVA-62), p. 8.

<sup>11</sup>U.S. Navy, Carrier Division 7, Cruise Report April-October 1965 (n.p.: October 1965). p. B-12.

obsession with the nuclear deterrent is evident even in the primary attack aircraft that the U.S. Navy is using. The A-4 aircraft was designed primarily for the cheap and effective delivery of a 3,000-pound nuclear weapon. Many problems have developed through its sustained combat use. For example, all but 1,100 pounds of its fuel is carried either externally or in an integral wing cell. Consequently, whenever the aircraft receives any damage to the wing, this is immediately compounded by a resultant fuel shortage. Many such damaged A-4's have made it back to the carrier only through the action of alert tankers. The tankers would recognize the need and meet the returning A-4, which would plug into the tanker for the trip back to the carrier. The F-8 is also experiencing trouble because of a somewhat complicated hydraulic control system that is rather vulnerable to battle damage. The only reason for mentioning these particular discrepancies is to point out that the carrier depends solely upon its air wing for its offensive punch; therefore, the carrier can be only as effective as the aircraft it carries. New aircraft such as the A-7, which has been designed specifically for limited war, are in production now, and it is expected that they will do much to increase the efficiency of the carrier as a weapons system. The A-7 in particular represents a large increase in range and weapon-load carrying ability over the A-4 which it is replacing.



Another weakness in the carrier weapons system that is showing up is in the area of airborne tankers. The tankers have many uses in the combat situation. Since increased bomb load results almost directly in decreased range, the tanker can be used to top off the aircraft carrying the heavier load, thereby giving the attack aircraft a more acceptable range. The tankers are also used to refuel the fighters in order to enable them to remain on station longer. Finally, an additional prime use is to refuel an aircraft that might be having some trouble coming back aboard the carrier and is about to run out of fuel. Because of this usage, there is an outstanding need for a new tanker with improved characteristics and equipment. The new tanker must have greater airframe reliability and store reliability to permit optimum scheduling and availability for missions. It must have a pumping rate comparable to that of the KA-3. This is required to service high-performance aircraft. The tanker must also have a fuel capacity large enough to provide sizable quantities of tanking fuel while still maintaining an adequate reserve for endurance on station. Since the tanker normally recovers last, it should have a landing fuel weight and boarding rate that preclude its becoming an airborne emergency itself. The other alternative tanker capability that the fleet has today is carried as a pod configuration on either the A-4 or A-6. The main limitations here are the reduced transfer rate and small quantity of fuel available for transfer.

In essence, what is needed is an aircraft with the airframe reliability, fuel capacity, and boarding rate of the A-6, and the fuel transfer of the KA-3--with a more reliable store.<sup>12</sup> This need is further underscored by the fact that the KA-3 is no longer in production.

The Vietnam experience which is revealing the need for improved carrier aircraft, is also revealing the importance of other advances in the carrier system.

The Nuclear Carrier and Vietnam. The limited war situation in Southeast Asia has even had an effect on the nuclear carrier question. The Navy has pointed out that the nuclear carrier is more effective because of the increased bomb load and aviation fuel supply she could carry. Secretary of Defense Robert S. McNamara has discounted this by saying that the strike forces would not get involved in sustained effort where this capability would become an advantage; therefore, this attribute did little to justify the extra cost of nuclear propulsion. Mr. Luther Carter, writes in the magazine Science:

The Navy reports that the Enterprise, operating off Vietnam in the South China Sea, has been launching 20 percent more attack sorties than the conventional carriers have been launching. The very circumstances which, 2 years ago, McNamara felt would be "quite exceptional" have become routine since the raids on North Vietnamese

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<sup>12</sup>"Independence" (Aircraft Carrier CVA-62), p. 51.

and Viet Cong targets began in February 1965. Carriers of the U.S. Seventh Fleet have been engaged in sustained combat operations and have required frequent replenishment. The Navy's analysis of the nuclear carrier's value--heavily influenced by the intuitive judgment of experienced naval officers--appears to have been better than the early judgments by McNamara and his analysts.<sup>13</sup>

This one area of advantage is not the only one which makes the nuclear carrier a formidable weapon. By far the most significant factor is the virtually unlimited range granted by the nuclear power source. In an age where trouble can break out at widely separated places on the globe, it is a distinct advantage to have a weapons system that can move quickly to the scene with a minimum of international commotion and arrive in a condition to take any kind of action desired by the government.

Summary. In summary, the important points to remember are that the carrier is an effective, tried, and tested weapon for limited warfare. The government is able to put a large and powerful weapon on the scene with little or no coordination with any other nation, and this weapon gives the government an option of action across the full spectrum of warfare. The initial cost of the carrier is high, but weighed against the fact that it can serve for many different crises throughout its lifetime, the money would seem to be well spent. The carrier will belong to the

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<sup>13</sup>Luther J. Carter, "Nuclear Carriers: Studies Convince the Skeptics," Science, 18 March 1966, p. 1371.

United States as long as it is desired and is not subject to the whims of other nations. The present conflict in Vietnam is again showing the usefulness of the attack carrier and proving that it is also capable of conducting sustained operations. Finally, efforts should be made to equip the carrier with the best aircraft available for the mission. Special emphasis should be placed on the area of conventional weapons as the armament that is most likely to be required.

## CHAPTER IV

## THE CARRIERS AND THE FUTURE

Having fashioned the thermonuclear deterrent, we must not only maintain it, but must also take a similar position for the lesser orders of military conflict. We must look to what it will take to deter nonnuclear wars, limited wars of national liberation, and the lesser strife endemic to the cold war. Here, too, the key word is "credible." Our forces must be able to counter quickly, using the precise degree of forces the situation appears to call for.<sup>1</sup>

What does the future hold for the carrier forces? Should the carriers remain a prime portion of the strategic force, or should they be released to play their part in the limited war situations? These are the questions that will have to be answered by the military planners of the years to come.

Former Carrier Strategy. Past commitments to the nuclear strategy have tied the carriers in the Pacific, for instance, to specific launch-plan positions that would permit their aircraft to reach assigned targets in Siberia and China.<sup>2</sup> The carriers operated individually to reduce the nuclear threat and were never in any port more than one at a time.

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<sup>1</sup>U. S. Congress, House, Committee on Armed Services Hearings (Washington: U. S. Govt. Print. Off., 1964), p. 7232.

<sup>2</sup>Warner, p. 13-14.

The availability of fleet ballistic missile submarines to take over the nuclear alert Single Integrated Operational Plan (SIOP) targets assigned to the Pacific carriers and the events in Southeast Asia have freed the carriers from this stringent limitation on their mobility and versatility. It must be emphasized that they have lost none of their capability to conduct nuclear warfare at any level. They just don't have to maintain the rigid alert.<sup>3</sup> This alert has done much to degrade the performance of the carrier as a limited war weapon. The pilots along with their aircraft, which constitute the offensive weapons of the carriers, have been forced to spend a large amount of time in training for nuclear delivery. These training hours have come directly from the time that should have been available for conventional weapons delivery. Secondly, the American forces which might be needed to deal with local war situations should not be assigned high priority, central war tasks which would prevent their use during a local crisis. Unless this system is changed, the military leaders in the field will be constrained from committing their forces locally for fear that they will not be able to perform their central war missions should the local war explode.<sup>4</sup>

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<sup>3</sup>Ibid., p. 13-14.

<sup>4</sup>Morton H. Halpern, Limited War in the Nuclear Age, (New York: Wiley, 1964), p. 69.

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The present war in Vietnam coincides with the rounding out of United States Polaris forces; therefore, it provides a good starting point towards a new strategy in the use of the carriers.

New Carrier Strategy. The old habits for deployment have been broken by the present operations in Vietnam, and it is time to make sure that at the end of the conflict the carriers do not take the easy route and slip back into the same pattern of operations that was followed prior to the war. Since the strategic commitment can now be handled in full by the Air Force and the Polaris missile system, the time has come to start capitalizing on the mobility of the carrier task force. The release from the specific launch points opens up large new areas for exploration by the carriers. It has been seen that the carriers have been an extremely effective limited war tool, but, in the majority of cases, the limited wars and crises have erupted near the area which the carriers patrolled anyway, as a result of their strategic mission.

Attention must be given to the regions of the globe where the future crises are most likely to erupt. A look at a current map of the world will show that the vast majority of the underdeveloped countries are situated along the rimland of Asia, Africa, and South America. These are the regions most likely to be caught up in the throes of wars of national liberation and the likes. The Soviet Union or Red China will be

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competing with the West for influence in these areas and trouble, if past patterns are any precedent, will ensue. Another look at the map will show that a vast portion of this area in question is easily accessible to air power based at sea. This type of air power is free to roam the territory in international waters without imposing on the sovereignty of any other nation. The United States must have forces ready near the possible trouble spots--forces which can respond quickly to any threat that endangers world peace. As Admiral Ulysses S. G. Sharp has said,

These forces must be capable of applying the proper amount of power to bring any conflict to a rapid conclusion. This power must be applied precisely, with regard to degree as well as accuracy, so that a conflict of limited scope does not expand into general war. Fast application of measured force is vital.<sup>5</sup>

Prior to the war in Vietnam, two carriers were normally deployed to the Mediterranean and three were stationed in the Western Pacific. Over the years this method of operation became fairly standard, and the continued deployments have shown that it is well within the capability of the Navy to keep five carriers on station at any given time. This utilization of the carriers left large areas of the rimland uncovered by sea-based air power. The United States was unable to exert its will

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<sup>5</sup>Ulysses S.G. Sharp, "The Navy and Limited War," Ordnance, March-April 1962, p. 642.



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in these uncovered areas without a large and obvious military effort. If the areas were normally in the patrol pattern of a carrier, then the United States presence could be known almost immediately.

Future Carrier Deployment. The major question now centers around how best to deploy these forces to handle future United States needs. One answer is to do away with the practices of the past and instead send the carriers on patrols which will cover the large portions of the world where trouble is predicted. The same five carriers could be used, but the coverage could be increased tremendously.

Number one carrier could cover the area from Japan to the South China Sea. This would include the same territory which is now covered, but more freedom of movement would be possible if the carrier were released from the first strike commitment of the SIOP. If required, the carrier could have a good chance of reaching a launch position to support the strategic forces with follow-on strikes. The old trouble spots of Korea, Formosa, and Southeast Asia would be included along this track.

The second carrier could patrol from Southeast Asia around to the southern tip of India. This would introduce American naval power into the Indian Ocean area for the first time on a regular basis. For years this area has been mainly a British concern, but economic pressure is slowly forcing the British to give up their commitment east of Suez.

At present, no friendly Asian power possesses the power to move into this vacuum caused by the British withdrawal, so it might behoove the United States to step in. The new proposed deployment of the carrier forces would allow the United States to make its presence known without a large additional outlay of either funds or equipment.

The third carrier would also cover the Indian Ocean, but this would be in the region from the southern tip of India around to Kenya on the east coast of Africa. The optimum type of force for deployment in this area would be the nuclear-propelled variety. This track offers the least in support facilities and also calls for the greatest amount of steaming. Nuclear propulsion would free the force from a dependence on black oil and would give it much greater flexibility and speed for response. Some British-controlled facilities are available in the area, and negotiations for their use should be started with Great Britain.

Carrier number four would be stationed off the west coast of Africa from the Gold Coast to Gibraltar. This is another area that generally sees American naval power only on its way to and from the Mediterranean. Many small unstable countries exist in this section of Africa, and there is a continuing effort by the Communist nations to gain a foothold in the region. The stabilizing effect of American naval power might be enough to keep the nations out of the hands of the Communists.

Finally, carrier number five would cover the familiar area of the Mediterranean. This carrier could also very easily support the United States strategic mission with follow-on strikes. The carrier could be used for operations with the NATO forces. Support facilities and ports are well established in this area and consequently no hardship would be entailed.

Any contingencies which might arise in the Caribbean or in South America could be handled by the First or Second Fleet, depending on the coast.<sup>5</sup>

The proposed tracks would give the United States the maximum amount of coverage for the effort expended. This world-wide coverage fits in very nicely with the concept expressed by Admiral John S. McCain, Jr. Future hostilities may require any one of a variety of responses. One is the projection of combat-ready Marines ashore any place where circumstances might dictate. Because of the geographic, political, and economic factors, America is faced with a four-ocean challenge.<sup>6</sup> The proposed carrier deployment puts American forces into three of Admiral McCain's four oceans. The fourth is the Arctic Ocean.

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<sup>5</sup>U. S. Office of Naval Operations, Sea-Based Air Strike Forces Study for Secretary of Defense (n.p. Washington: 1963), p. Z-2-Z-35.

<sup>6</sup>John S. McCain, Jr., "The Total Wet War," Vital Speeches, 15 June 1966, p. 515.

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He envisioned this as a vast region where underseas war would be conducted by submarines of opposing forces. For rather obvious reasons this is not an environment suited to naval air power and is best left as an area of operations for nuclear submarines.

Admiral McCain goes on to say that the longer distances and new conditions put a new emphasis on mobility. From the standpoint of distances, most trouble spots are thousands of miles from the United States. Furthermore, they tend to be in areas in which the Americans have few fixed bases from which to project military power. The primary method by which they are going to get there is by sea.<sup>7</sup>

Availability of American Military Presence. The described deployment scheme is not designed to meet a lengthy sustained effort in the various sections. The only thought is to have a significant American military presence nearby in a manner that is the least offensive to the other nations of the world. In any sort of sustained effort the same thing that has taken place in Vietnam would happen again. United States land-based tactical air would be moved into the theater. One point here is that sea-based power might be needed to provide the wedge to permit the entry of land-based power. As more of these underdeveloped

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<sup>7</sup>Ibid., p. 515.

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countries expand and start asserting their sovereignty, it becomes more difficult to pre-position supplies or facilities on their territories. The sea-based power could make and hold a beachhead to allow the construction of facilities capable of handling modern-day tactical aircraft.

Very often in the crises that have arisen in the past, the speed with which United States forces have been on the scene has been a prime factor for the success of the operation. Many of the countries have very little in the way of military power and they are easily defeated when opposed by a nation with any degree of military might. If a United States force can be on the scene before the conflict has a chance to develop, it might be stopped. These lightning type conquests are prevalent in the Middle East, and Africa also has her share of coups and swift military actions.

The oceans permit three types of mobility. First is geographic mobility. The oceans are a vast highway on which Americans can range from place to place at will. Second is political mobility. The user of the international waters does not become involved in the problems of national sovereignty. Third, the oceans give the United States tactical mobility. The sea-borne striking forces can be concentrated as a unit or dispersed in many task groups.<sup>8</sup>

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<sup>8</sup>Ibid., p. 515.

Any time the usefulness of the carrier striking force is questioned, a good rebuttal is to ask how else the United States could put the desired amount of military power on the scene. On consideration, it is very easy to see the obvious drawbacks of troops or land-based air. This type of power is very useful in a situation such as exists in Europe. First of all, the countries involved are all fairly sophisticated by present standards and are capable of having and maintaining facilities which can handle the modern equipment of war. Secondly, the troops are there as part of a grand alliance of the NATO nations. Even this has its drawbacks, as evidenced in the current troubles with France. It has decided to pull out of the military side of the treaty, and this has caused a major upheaval in the military structure of the alliance. This situation has been occasioned by the action of one of America's long-time allies. By the same token, the United States bases and facilities in more volatile areas of the world stand a greater risk of loss. It is very important that the United States approach these vast new responsibilities with a maritime strategy clearly in mind. One of Britain's major errors in the postwar period was to spend hundreds of millions of pounds on ground installations at Aden, in Kenya, and elsewhere. These bases became politically troublesome and a liability all around.<sup>9</sup>

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<sup>9</sup>Harrigan, p. 7.

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The job of patrolling the world's trouble areas is clearly a task in which the Navy can excel. This presence of American power on the scene can provide the United States the luxury of maintaining the vast majority of its land and air forces within its continental territory where they are not serving as an irritant to foreign nations or contributing in large part to the gold outflow problem. The land and air forces of the United States should concern themselves with ways of moving rapidly from the continental United States to the trouble areas. Some thinking along this line has already been initiated in the development of the C-5 and FDL concepts.

These items would allow the United States to pull most of its combat troops back to the continental limits, yet still retain the quick response desired by its allies. Navy power in the area can be used as the tool to force the entry of the stateside force if this proves necessary.

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## CHAPTER V

## CARRIER FORCE COMPOSITION

In view of the challenges that this country may be expected to face in the late 1960's and early 1970's, it is imperative that the United States stop thinking of naval power in the finite terms of the 1950's. Ship-building cannot be permanently held down below the true needs of national security. Nor is it possible to be prepared for the danger periods ahead by another refurbishing of the vessels constructed in the 1940's.<sup>1</sup>

Over the past decade there has been much in the press concerning the need for carriers, and now that this has been fairly well established, the cry has turned to, Why does the United States need such large carriers? Actually the growth of carrier size compares very favorably to airfield growth during the same period. The carrier overall flight-deck length has increased from about 866 feet in 1942 to about 1,025 feet today--an 18 per cent increase. This has provided the longer runway lengths required for the new aircraft now in operation. As a comparison, land-based runways have gone from about 5,500 to over 11,000 feet during the same evolutionary period--a 100 percent increase in length.<sup>2</sup>

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<sup>1</sup>Harrigan, p. 9.

<sup>2</sup>U. S. Congress, House, Committee on Appropriations, Department of Defense Appropriations for 1961 (Washington: U.S. Govt. Print. Off., 1960), p. 28-29.



Current United States Carrier Force. At the present time the Navy has 16 attack carriers in commission. These include five "Hancock" class, three "Midway" class, seven "Forrestal" class, the newest of which is the "America," and finally, the "Enterprise" which is the first and only nuclear carrier.

"Hancock" Class. Beside the fact that the "Hancock" class carriers are getting rapidly overage, their shortcomings are showing up in other areas. They are no longer able to operate all the Navy's aircraft in a safe manner. The new A-5 and F-4 exceed the capabilities of this class of carrier. This means that when the Navy is forced to put these carriers on the line, they go with something less than the best that the nation has to offer in the way of air power.

For years the Navy has been warning of the dangers of block obsolescence, which would affect a large majority of the ships in the years from 1962 through 1966. These figures were based on a 20-year life span for the ships. Mr. McNamara points out what we should be concerned with here is not the chronological age of a particular ship, but whether it is able to perform its mission in the face of the unexpected threat, that is, whether it is tactically obsolete. He goes on to say

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that this cannot be determined by blocks but on a class-by-class and ship-by-ship basis.<sup>3</sup>

The carriers that are retired from the attack carrier forces for the most part are not turned out to pasture. They embark on a second career as a CVS, a carrier connected with antisubmarine warfare. This means that instead of amortizing the cost of a carrier over a 20-year period, it is not without reason to up this figure to 30 years of useful service. In an age where budgetary concern is so important, this new approach to the cost opens up new possibilities.

"Midway" Class. The "Midway" class carriers are presently operating all of the Navy's jets from their decks, but they do not give the full measure of safety for the pilots that the Navy would like. Besides being limited in such things as deck area, which ultimately determines total aircraft load, they also fall below the standards set for the desired ammo and aviation fuel-carrying capabilities. This reduction in the stores capacity means that the carrier is forced to replenish these items more often, and when she does this, she becomes more vulnerable and less efficient.

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<sup>3</sup>Robert S. McNamara, Statement of Secretary of Defense Robert S. McNamara before a Joint Session of the Senate Armed Services Committee and the Senate Subcommittee on Department of Defense Appropriations of the Fiscal Year 1965-1969 Defense Programs and 1965 Defense Budget, 27 January 1964 (Washington: 1964), p. 90.

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"Forrestal" Class. The backbone of the carrier force today is composed of the super-carriers of the "Forrestal" class. These are mighty ships of over 1,000 feet in length, with an aircraft-carrying capacity of around 90. Four catapults give the carriers a much faster launch speed. There is also a significant increase in aviation fuel and ordnance carried aboard. These factors help to make the carrier more independent of external support, and the further along this line the Navy progresses the better it is qualified to cope with the various incidents which might arise. These carriers are loaded with the newest electronic gear, and they should remain useful to the Navy well through their predicted 20-year period. They are large enough to provide the desired margin of safety for today's modern jets and also the aircraft that will be arriving in the foreseeable future.

"Enterprise" Class. Finally, the last class to be covered is the "Enterprise" class. This carrier opens up a whole new era in carrier operations. Nuclear propulsion has eliminated the primary limitation on combatant ships.<sup>4</sup> For years the Navy's carriers have been tied to the oilers, and often the commanding officer has not been able to use the speed desired for a certain situation because of fuel

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<sup>4</sup>Frederick H. Michaelis, "CVA(N)-65 Skipper Looks at Nuclear Carrier NavAir Ops," Data, January 1965, p. 30.

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considerations. This restraint has now been lifted. For all practical purposes, the "Enterprise" has unlimited range and can operate at full speed for days on end to reach a desired objective in the shortest possible time. This flexibility in maneuvering, coupled with the increase in fuel and ordnance-carrying capability resulting from the vessel's not having to carry vast quantities of black oil for its own propulsion, has given carrier tactics a new look. It is imperative that the tacticians figure on new ways of operating to exploit this advantage. In 1964 the "Enterprise" took part in Operation Sea Orbit which entailed an around-the-world trip by the first nuclear task force. Captain Michaelis, the skipper of the "Enterprise," had this to say: "The Navy's traditional role of strategic mobility has been increased a full magnitude as a result of the nuclear circumnavigation. Before 'Operation Sea Orbit,' it was merely conjecture whereas now it is a proven fact that a nuclear powered aircraft carrier can proceed at high speed to any point in the maritime world and arrive with complete logistic preparedness."<sup>5</sup>

This same flexibility was again shown when the "Enterprise" deployed to South Vietnam. She steamed to her objective at high speed, and upon arrival was capable of launching maximum effort strikes.

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<sup>5</sup>Ibid., p. 29-30.

Admiral McDonald points out that the most vital asset of nuclear-powered warships is not being shown in the Vietnam operation. Nuclear power, he explains, frees a ship from dependence upon a steady supply of fuel oil. The present enemy has posed no threat to the Navy's oil supply, but the sinking of tankers and the bombing of fuel bases could defeat an oil-powered fleet. This factor could be decisive in a future war.<sup>6</sup>

Carrier Aircraft Sophistication. Finally, some additional mention must be made of the aircraft which supply the carrier with its offensive punch. Aircraft have advanced at the same great rate as the other military weapons that have come into being since World War II. The aircraft have generally forced the carriers to come up with new and better ways of launching and recovering them. The steam catapults and constant run-out arresting gear are just some of the modern equipment that has evolved to keep up with the increase in aircraft weight and speeds. While these aircraft have become more effective, they have become much more complicated. This sophistication has strained the carrier to almost the maximum in providing working space for the maintenance of this equipment. The more complicated equipment also

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<sup>6</sup>"Battle for a Nuclear Navy: Will McNamara or Congress Win?"  
U. S. News & World Report, 27 June 1966, p. 44-46.

means very often an increase in the number of personnel required to maintain it. Couple this with the fact that many of the new aircraft are going to a two-man crew and it is easy to see that the berthing capacity of the carriers is overtaken. The newer carriers are generally able to carry the load, but in many cases the crews of the older ships are forced to live in conditions that are something less than desirable.

Admiral Outlaw offers these remarks:

And now just a word about sophistication. I submit that we have over-sophisticated our equipment to the point of diminishing returns on the investment, and I am distressed to see that we have let a new contract for some type of doppler system which will permit even longer range missiles on the F-4--and to learn that we are planning to provide the A-7 with a new and more complicated avionics system. While new and exotic, these can only add to the already overextended maintenance departments problems and may not pay their way.

What is needed is:

- A. Long legs
- B. Long endurance
- C. Heavy pay load capacity
- D. High volume of fire weapons, and
- E. Simplicity.<sup>7</sup>

Another view along this same line is represented in the area described as major points learned from the WestPac deployment of the USS "Independence." The section reads as follows: ". . . sophisticated

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<sup>7</sup>Outlaw, p. 26.

weapons system offer no panacea for accuracy and destruction in this type of limited war. Simplicity is still an excellent principle."<sup>8</sup>

This plea for simplicity should not go unheeded if the Navy is to carry out its mission in the remote areas of the globe. As noted on the preceding page, complicated equipment can result in a large number of parts required to keep the gear or aircraft in a flying status. True mobility escapes if the carrier is forced to depend on a life-line of spare parts.

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<sup>8</sup>"Independence" (Aircraft Carrier CVA 62), p. 16.

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Attack Carrier Striking Groups. When the carrier is teamed with its screening ships it then becomes in today's vernacular an "attack carrier striking group (ACSG)". This unit when supported by a mobile logistic support unit is a mobile airfield which can be moved to within range of selected enemy targets.

The carrier based aircraft are the primary offensive weapons of the group. The main function of the rest of the ships in the force is to provide a screen against submarine and air threats, and secondarily provide assistance against a surface threat. Since there is no rigid requirement for a specified number of ships the striking group can be tailored to meet the circumstances. For example, if the submarine threat is expected to be extremely high then an anti-submarine carrier might be included in the force. The key is to anticipate the requirements so that the attack carrier can enjoy optimum survivability.

CVA's and the Amphibious Force. Much has been said in this paper about projecting United States power to the four corners of the globe. The picture is incomplete if it stops with the carrier and its striking group. History has shown that very rarely will air power alone be sufficient. For a victory to be complete the land must be taken and held by the foot soldier. It is in this context that the ACSG

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joins with its natural partner, the ready amphibious group. These amphibious groups give the United States the capability of projecting its power ashore. The group is composed of a unit of combat ready Marines, married to their weapons and equipment, the vehicles to put them ashore and a mobile supply line capable of bringing the needed follow-on supplies. Also included with the group is the supporting arms fire necessary for the assault. The carrier's mission is to supply the needed air power for pre-assault bombardment and to shield the Marines during the critical phases of the landing. After the beachhead has been secured the carrier can still be useful for close air support missions while the troops advance. The carrier will normally stay on the job until the Marines have secured enough territory to allow them to fly in and operate their own Marine aircraft. Generally these advance forces will concentrate on securing facilities to allow the United States to exercise its tremendous air and sea lift capabilities for pouring in additional troops and supplies if the situation warrants.

STRIKECOM. The United States Strike Command and its capability for rapid deployment of troops and tactical air power must also be mentioned. The inclusion of this force rounds out the United States'

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capability for quick reaction in limited war or a brushfire environment.

These troops are capable of decisive action in a limited conflict or

they have the capability of securing the areas necessary for the build

up of men and material required should the conflict escalate.

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## CHAPTER VI

## SUMMARY AND CONCLUSIONS

It is the unanimous opinion of the responsible leaders of the Navy that modern attack aircraft carriers, manned by the most modern, high performance aircraft available, will be indispensable, as far as can be seen in the future, to insuring our position to sea supremacy and for performing all the essential tasks imposed on our Navy in time of war.<sup>1</sup>

Most of the evidence available points to the fact that the United States is going to be faced with the spectre of limited war in the foreseeable future. This type of confrontation calls for specific and controlled response on the part of the United States. History has shown that an awesome nuclear retaliatory force by itself is not sufficient to ensure peace in the world.

When the need for a system that is capable of controlled and selected response is coupled with the need for mobility and freedom of movement, the choice of weapons available is narrowed considerably. It is in this light that the worth of the attack carrier is noted. This system is capable of reacting across the entire range of warfare and can do so without becoming a large political liability or a total loss when a foreign country decides to assert its authority. Instead of being useful in one small

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<sup>1</sup>U.S. Congress, House Committee on Appropriations, p. 22.

portion of the globe, the carrier is free to move from crisis to crisis, thereby helping underwrite the original cost. Since the majority of support for the carriers can come from United States sources, this weapons system presents a minimum drain on the balance of payments when contrasted with what takes place when troops and land-based air power are billeted on foreign soil.

The age of the carrier as a prime deliverer of nuclear weapons in the first strike concept of the SIOP is over. The United States now possesses better means for this projection of power. The Polaris system, along with the Strategic Air Command, gives the country the well-rounded deterrent force that is desired. The carrier forces should be free to concentrate on limited war situations and the delivery of conventional weapons through tactical air power. This does not mean that the carriers should empty their holds of nuclear weapons, only that the emphasis should be shifted and the bulk of the training effort directed to conventional weapons delivery. A peripheral nuclear capability is envisioned, but this would consume only a small portion of the training time that is now required to stay qualified for a deep penetration mission. Such a nuclear capability must be maintained, if for no other reason than to give the commander the option of choosing weapons compatible with any stage of conflict. To reap the most benefit from the carriers, their capability of mobility, unhampered by national borders or complicated political maneuvering,

In the vast majority of the cases the carrier-based air coupled with the amphibious group could be used to secure an area from which land-based air could stage or to secure the facilities necessary for a follow-on air or sea lift.

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must be exploited. If, after the conflict in Vietnam, the carriers return to their usual areas, then much will be lost in optimum utilization. A deployment pattern similar to that suggested in this thesis would allow the United States the opportunity of projecting naval power to a much greater portion of the volatile countries of the world than has previously been possible. This increase in coverage would not cause an undue increase in funds or forces. The same number of carriers that comprised the normal peacetime deployment would be utilized, but the coverage would be increased tremendously.

The carrier force would also be capable of securing the foothold necessary to introduce land-based tactical air into the conflict. Any large conflagration would require the use of such land-based tactical air, but in these days of crumbling alliances and nonalignment, the United States might find itself without a suitable base for the air power *needed.* ~~needed. In the vast majority of the cases the carrier-based air could be used to secure an area from which the land-based air could stage.~~ Carrier-based air might well be the wedge that would be needed to open up the way to victory.

Finally, the need for simplicity in both aircraft and equipment is of the utmost importance. The United States is caught up in an era where increasing complexity and sophistication radically affect every way of life. The carrier and its aircraft have not escaped this wave. Aircraft

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have become so complex that the support equipment and spare parts necessary to keep them in a combat status almost stagger the imagination. This sophistication causes a quantum jump in the logistics support required. One answer to the problem is to carry more spare parts on the carriers, but this entails taking storage space away from some other function, such as weapons storage or living and working areas. These facilities are strained to the breaking point now. Another alternative is to tie the carriers down to a long logistic line for the parts. If this is done, the prime capability of mobility is degraded. The logical solution lies in simplification. The planners must accept the fact that the carrier will not have an aircraft that is capable of delivering weapons in a "zero-zero" environment. The successful attainment of this capability is doubtful, and the price that must be paid in sophistication is just not worth the sacrifice.

The real value of the attack carrier as a weapons system has been rediscovered as a result of the events of the past decade or so. The carriers have shown that they are a valuable tool in the limited war environment that has been projected for the foreseeable future. It now behooves the government of the United States to operate this weapons system in the most profitable and enterprising manner possible.

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## BIBLIOGRAPHY

- Baldrige, Edward F. "Lebanon and Quemoy--the Navy's Role." United States Naval Institute Proceedings, February 1961, p. 94-100.
- Baldwin, Hanson W. "U.S. Global Strategy." Ordnance, November/December 1964, p. 272-277.
- "Battle for a Nuclear Navy: Will McNamara or Congress Win?" U.S. News & World Report, 27 June 1966, p. 44-46.
- Borklund, Carl W. "The Challenge to Good Judgement." Armed Forces Management, September 1962, p. 12-15.
- Brady, Francis X. "The Influence of Seapower on the Current World Crisis." Lecture. U.S. Naval War College, Newport, R.I.: 21 May 1963.
- Brown, Neville. Strategic Mobility. New York: Praeger, 1964.
- Butz, J.S., Jr. "Those Bombing Raids in North Vietnam." Air Force and Space Digest, April 1966, p. 42-54.
- Carter, Luther J. "Nuclear Carriers: Studies Convince the Skeptics." Science, 18 March 1966, p. 1368-1371.
- Churchill, Winston L.S. "Mr. Churchill's Address Calling for United Effort for World Peace." The New York Times, 6 March 1946, p. 4:1-6.
- Davids, Jules. America and the World of Our Time. 2d ed. New York: Random House, 1964.
- De Seversky, Alexander P. America: Too Young to Die. New York: McGraw-Hill, 1961.
- Dulles, John F. "Dulles' Statement on Foreign Policy of Eisenhower Administration." The New York Times, 13 January 1954, p. 2:2-8.
- Halpern, Morton H. Limited War in the Nuclear Age. New York: Wiley, 1964.



Harrigan, Anthony. "New Air-Sea Warfare in Vietnam." Washington Report, 22 August 1966, p. 1-4.

\_\_\_\_\_. "Vietnam Seen Proving Need for a Genuine Maritime Strategy." Navy (U.S.), September 1966, p. 6-9.

Hayes, Edward F. "Sea Power and National Greatness." Lecture, U.S. Naval War College, Newport, R.I.: 25 and 30 October 1963.

Heyworth, Lawrence Jr. "CVA: Attack Aircraft Carrier." Sperryscope, First Quarter 1966, p. 11-14.

Hickman, Gerry. "Floating Base Holds Surprises for Visitor." Air Force Times, 10 November 1965, p. 14:3.

"Independence" (Aircraft Carrier CVA-62). Command Debrief for West-Pac Deployment, 10 May 1965 to 13 December 1965. n.p.: 29 January 1966. SECRET

Johnson, Lyndon B. "Our World Policy." Vital Speeches, 1 May 1964, p. 418-422.

"Lack of Air Bases in SEA Limits Action, Brown Says." Air Force Times, 20 April 1966, p. 3:3.

Larkin, James R. "Modern Technology and Seapower." Lecture. U.S. Naval War College, Newport, R.I.: 19 April 1963.

Loebelson, Robert M. "What's Ahead for Naval Aviation?" The Journal of the Armed Forces, 29 January 1966, p. 8-11.

McCain, John S. Jr. "The Total Wet War." Vital Speeches, 15 June 1966, p. 514-519.

McDonald, David L. "Carrier Employment since 1950." United States Naval Institute Proceedings, November 1964, p. 26-33.

\_\_\_\_\_. "The Role of the Navy in the Formulation and Implementation of National Strategy." Lecture. U.S. Naval War College, Newport, R.I.: 12 November 1964. SECRET

McNamara, Robert S. Statement of Secretary of Defense Robert S. McNamara before a Joint Session of the Senate Armed Services Committee and the Senate Subcommittee on Department of Defense Appropriations of the Fiscal Year 1965-69 Defense Programs and 1965 Defense Budget, 27 January 1964. Washington: 1964.

\_\_\_\_\_. "U.S. Defense Policy, a Balanced Military Force." Vital Speeches, 15 September 1964, p. 710-711.

\_\_\_\_\_. "Why We Are Stronger Than Russia." The Saturday Evening Post, 7 November 1964, p. 15-17.

Michaelis, Frederick H. "CVA(N)-65 Skipper Looks at Nuclear Carrier NavAir Ops." Data, January 1965, p. 29-30.

Murphy, Charles J.V. "U.S. Sea Power: 'The New Mix.'" Fortune, August 1959, p. 76-83, 180-187.

Nitze, Paul H. "Nitze Discusses Navy's Major Mission." Navy(U.S.), July 1964, p. 27-30.

"The Ocean Arena." Interavia, May 1962, p. 561-562.

Osgood, Robert E. Limited War: the Challenge to American Strategy. Chicago: University of Chicago Press, 1957.

Outlaw, Edward. "Carrier Striking Force Capabilities." Lecture. U.S. Naval War College, Newport, R.I.: 1 November 1965. SECRET

Rivero, Horacio. "The Fleet of 1980." Navy(U.S.), November 1964, p. 7-10.

"Revolt on the High Seas." Time, 3 February 1961, p. 19.

Sharp, Ulysses S.G. "The Navy and Limited War." Ordnance, March-April 1962, p. 642-645.

Schade, Arnold F. "The Strategic Importance of Control of the Seas." Unpublished Term Paper. Harvard University, Cambridge, Mass.: January 1960.

Taylor, Maxwell D. The Uncertain Trumpet. New York: Harper, 1960.

Thach, John S. "In re Freedom of the Seas." Navy(U.S.), June 1963, p. 15.

Trefousse, Hans L. The Cold War: a Book of Documents. New York: Capricorn, 1966.

U.S. Congress. House. Committee on Appropriations. Department of Defense Appropriations for 1961. Hearings. Washington: U.S. Govt. Print. Off., 1960.

\_\_\_\_\_. \_\_\_\_\_ . Committee on Armed Services. Military Posture and H.R. 9637. Hearings. Washington: U.S. Govt. Print. Off., 1964.

\_\_\_\_\_. Senate. Committee on the Judiciary. Analysis of the Khrushchev Speech of January 6, 1961. Washington: U.S. Govt. Print. Off., 1961.

U.S. Navy. Carrier Division 7. Cruise Report April-October 1965. n.p.: October 1965. SECRET

U.S. Navy Dept. Aircraft Carrier. Washington: 1959.

U.S. Office of Naval Operations. Sea Based Air Strike Forces Study for Secretary of Defense. Washington: 1963. TOP SECRET

\_\_\_\_\_. Statement of Long-Range Requirements of U.S. Naval Forces, 1970-75. LRR-60. Washington: 29 April 1960. SECRET

\_\_\_\_\_. Naval Warfare Analysis Group. Strike Capabilities of Carrier Air Groups. Washington: 23 May 1962. SECRET

Vito, Albert H., Jr. "The Attack Carrier--Mobile Might." United States Naval Institute Proceedings, May 1961, p. 37-47.

Waggoner, Walter H. "Acheson Says U.S. Counts on Chinese Anger at Soviets for Land Seizures in North." The New York Times, 13 January 1950, p. 2:3.

Warner, Robert E. "Carrier Strike Force Operations." Lecture. U.S. Naval War College, Newport, R.I.: 31 May 1966. SECRET

Whitehouse, Arthur G.J. Squadrons of the Sea. Garden City, New York: Doubleday, 1962.