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EAGLES AND ALLIGATORS:
An Examination of the Command Relationships That Have Existed Between Aircraft Carrier and Amphibious Forces During Amphibious Operations

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This study examines the command relationships that have existed between aircraft carriers and amphibious forces during amphibious operations. The study uses historical models that track the evolution of amphibious warfare and respective command relationships through the Pacific and European theaters of World War II to other subsequent amphibious operations. The paper ultimately provides four models of command relationships that provided the framework for the successful prosecution of amphibious warfare in a variety of theaters and challenging situations.

This useful study provides a baseline for consideration and discussion as we look to the future and seek innovative ways to implement amphibious warfare in the 21st Century. New concepts such as littoral warfare, operational maneuver from the sea (OMFTS), naval expeditionary warfare and others currently challenge the time-tested command relationships between carrier battle groups and amphibious forces that served us so well in the past.

Command relationships are obviously vital to any use of military force, but are particularly important in warfare from the sea due to its complex and challenging nature. This paper provides a sound understanding for the continued evolution of transitional models of command relationships that will be useful in shaping future naval command and control structures.

R. S. WOOD
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SECTION I

BACKGROUND AND METHODOLOGY

The purpose of this paper is to delineate the various command relationships that have existed between amphibious forces and aircraft carriers during amphibious operations conducted from World War II to the present and to analyze how command relationships affected the conduct of those operations.

To fully appreciate the impact of those relationships on the outcome of the operations described, it is necessary to understand not only the specific relationship between the amphibious forces and the carriers supporting them, but also to understand the relationships between those two forces and the theater commander, the land-based air forces supporting the operation, and the air command and control systems used to control aircraft during the operation.

For purposes of this paper, the term amphibious forces includes all the forces under the command of the officer who today is called the commander, amphibious task force (CATF).* This could include, for example, amphibious ships, the landing force, and various forces supporting the operation including mine countermeasures forces and naval gunfire ships.

In some examples, amphibious forces have included aircraft carriers, usually escort carriers (CVEs). CVEs no longer exist, but the capability they brought to amphibious operations can now be assumed in some cases by a combination of small vertical/short take off and landing (VSTOL) carriers such as the Royal Navy's *Invincible*, amphibious assault ships such as the U.S. Navy's LHAs and LHDs, and civilian ships converted to serve as VSTOL carriers as the *Atlantic Conveyor* was during the Falkland Islands War. When referring to these types of carriers in a general sense, I have used the term small carriers. Conventional carriers are referred to as large carriers.

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* For clarity, current terminology is sometimes used in this paper even though other terms were used at the time of the operations described.

In the body of this paper, I have grouped amphibious operations into four basic types based on the command relationships used. I discuss the historical development of each type and describe its use in specific examples. When examining specific cases with respect to the command relationships used, it is often tempting to attribute more of the outcome to those relationships than may be justified. As in all combat situations, factors such as the ability and personality of the key commanders involved and the specific conditions under which the operation was conducted affect the outcome more than any formal diagram of command relationships. In describing specific examples, I have attempted to evaluate the impact of the command relationships themselves as distinguished from these various other factors. The case studies are not intended to be comprehensive accounts of the operations described.

The four basic models of amphibious command relationships are based on actual major combat operations. Two obvious possibilities are not included because they have not been used in the past. These are the case where:

- The CATF commands the entire force including the large carriers.

- The commander of the large carrier force also commands the amphibious operation.

Possible reasons why these two obvious choices have not been used in the past are discussed in sections VI.

The four basic types of command relationships that are examined are:

- The expeditionary force model used in the South Pacific theater during WWII and during Operation URGENT FURY in Grenada.

- The inter-theater model used in the Southwest Pacific theater during WWII.

- The fleet command model used in the Pacific Ocean Area during WWII and during the Korean War.

- The component command model used in the Mediterranean theater during WWII and during more recent British and American operations.

SECTION II

THE EXPEDITIONARY FORCE MODEL

U.S. forces tasked with seizing Guadalcanal in August 1942 (Operation WATCHTOWER) were organized into a naval expeditionary force that included both the amphibious forces–including the Marine landing force–and the carrier task force that supported the operation. A number of complex factors influenced this choice.

After suffering a series of setbacks after Pearl Harbor that included the loss of the Philippines, Southeast Asia, and various islands in the Pacific, the Allies created an overall command structure that divided the world into operational theaters. British and American planners favored a single Pacific theater, but eventually settled on splitting the area into a Southwest Pacific Area (SWPA) and a Pacific Ocean Area (POA). On 18 April 1942, Gen. Douglas MacArthur assumed command of the SWPA with his headquarters in Brisbane, Australia. On 8 May 1942, Adm. Chester Nimitz assumed command of the POA along with command of the U.S. Pacific Fleet.[1]

Because of its vast size, the Pacific Ocean Area was sub-divided into three sub-theaters called the North, Central, and South Pacific Areas. Admiral Nimitz commanded the first two sub-theaters directly from his headquarters at Pearl Harbor. Command of the South Pacific theater (SOPAC), was delegated to a subordinate, Commander, South Pacific (COMSOPAC). On 19 June 1942, Vice Adm. Robert L. Ghormley assumed command of SOPAC and established his headquarters at Aukland, New Zealand.

Allied strategy as agreed upon in 1941 called for the defeat of Germany first with an attendant priority of troops and material to the European theater. Army leaders generally interpreted this to mean no offensive actions in the Pacific until after the defeat of Germany. Naval leaders, on the other hand, argued for at least limited offensives in the Pacific to keep the Japanese from consolidating their gains unopposed. General MacArthur supported the latter approach. Spurred by a Japanese threat to lines of communication to Australia and bolstered by the realization that a cross-channel attack into France would be impossible in 1942, the Joint Chiefs of Staff (JCS) eventually agreed to a U.S. offensive to start in the SOPAC/SWPA region.

On 2 July 1942, the JCS issued a directive breaking the proposed offensive into three phases or "tasks." Objectives for the three tasks were:[2]

1. Santa Cruz Islands, Tulagi, and adjacent positions.

2. Remainder of Solomon Islands, northeast coast of New Guinea.

3. Rabaul, and adjacent positions; New Guinea–New Ireland.

Because the objectives other than the Santa Cruz Islands were in MacArthur's SWPA, he expected to have command of the upcoming offensive. Adm. Ernest J. King, Commander in Chief of the U.S. Fleet (COMINCH), believed that COMSOPAC should control the offensive because:[3]

- CINCPOA would supply most of the forces needed.
- The forces assigned would prepare for the offensive in the POA.
- The forces conducting the offensive would be covered and supported logistically from the POA.

To resolve this conflict, the JCS reached a compromise in which they shifted the boundaries between POA and SWPA to place Tulagi within Nimitz's theater. Nimitz was to command task one. Following the successful completion of task one, MacArthur would take command of the offensive using both forces assigned to his theater and forces from SOPAC which COMSOPAC would command under "strategic direction" from MacArthur.

The offensive was to begin early in 1943, but the Allies discovered that the Japanese were constructing an airfield on Guadalcanal, a large island across Sealark Channel from Tulagi. Realizing that land-based Japanese aircraft operating from Guadalcanal would upset the balance of forces in the Solomons and seriously complicate the ability of COMSOPAC to achieve task one, the JCS advanced the date for the offensive and added Guadalcanal as an objective.

In a directive dated 9 July 1942, Admiral Nimitz ordered Ghormley to begin task one about 1 August and assigned forces for that purpose. The same directive designated Ghormley task force commander for task one and directed him to "exercise strategic command in person in the operating area, which is interpreted initially to be the NEW CALEDONIA-NEW HEBRIDES area."[4] Although the term "strategic command" was not defined, Nimitz apparently expected Ghormley to personally command the coming operation. Ghormley, instead, chose to create a separate task force to accomplish the mission and placed Vice Adm. Frank Jack Fletcher in command. The task force, referred to as an expeditionary force, was designated Task Force (TF) 61. SOPAC command structure for the accomplishment of Task One (Operation WATCHTOWER) is shown in figures 1 and 2.

Several factors should be considered in evaluating the effectiveness of this command arrangement:

• Fletcher commanded both the amphibious forces and the supporting carriers, but he did not command the land-based and seaplane reconnaissance aircraft necessary for the security of his force. Within SOPAC, those aircraft were commanded by Commander Air Forces South Pacific (COMAIRSOPAC), Rear Adm. John S. McCain. Designated CTF 63 for the operation, McCain operated from an advanced headquarters on board the seaplane tender USS *Curtiss* (AV-4), which was located at Espiritu Santo, 560 miles southeast of Guadalcanal. TF 63 contained aircraft from the U.S. Navy, the U.S. Army Air Corps, and the Royal New Zealand Air Force. MacArthur was responsible for air search north of Guadalcanal, which meant that Fletcher had no control over the aircraft involved.

• As rear admirals, Leigh Noyes was senior to Fletcher. Fletcher was promoted to vice admiral effective 26 June 1942, however, and given command of TF 61 because his experience at the battles of the Coral Sea and Midway made him the Navy's most experienced carrier commander. For the operation, Fletcher chose to keep his three carriers, *Saratoga, Enterprise*, and *Wasp*, as three separate task forces rather than integrating them into a single unit. He placed the three task forces under Rear Admiral Noyes as Commander Air Support Forces, Task Group (TG) 61.1). In a confusing move, however, Fletcher maintained command of the *Saratoga* task force in addition to his overall command of TF 61. To further confuse operations, the carrier task units continued to use their Pacific Fleet task force designations during the operation.

• The relationship between Admiral Turner and 1st Marine Division commander, Maj. Gen. Alexander A. Vandegrift, was different than the one that typically exists between the CATF and the CLF under current doctrine. During the conduct of an amphibious assault today, CATF would have operational control over the landing force from the time the landing force embarks until the CLF is prepared to assume control ashore. The plan issued by the chief of naval operations on 29 April 1942, however, placed the commander of South Pacific amphibious forces in "command" of all assigned forces including ground units. On 2 July, the JCS confirmed that relationship by stating, "Direct command of the tactical operations of the amphibious forces will remain with the Naval Task Force Commander throughout the conduct of all three tasks."[5]

• In addition to U.S. forces, TF 62 also included three Australian cruisers that had arrived as part of TF 44, MacArthur's naval contribution to task one. The task force was commanded by Rear Adm. V.A.C. Crutchley, a Royal Navy officer on loan to the Royal Australian Navy (RAN). Allied agreements at the time stipulated that in combined operations with Australian forces, the senior U.S. officer would command if aircraft carriers were involved. If not, the senior officer of either navy would command. Because neither Admiral Crutchley nor Rear Adm. Norman Scott, USN, Admiral Turner's other flag officer subordinate in TF 62, had been flag officers long enough to

appear in their respective navy's lineal list, Turner was unable to determine their relative seniority. He nevertheless chose to make Crutchley his second in command and screening group commander (CTG 62.6) in spite of the latter's reluctance to assume those roles in light of the preponderance of U.S. ships in the task force.[6]

As the date for carrying out task one approached, Both Admiral Fletcher and General MacArthur exhibited a growing pessimism about the chances for success. On 8 July, the two commanders sent messages to their respective service chiefs recommending that Operation WATCHTOWER be deferred because:

> The Carrier Task Groups will be themselves exposed to attack by land based air while unprotected by our land based aviation and it is extremely doubtful that they will be able to retain fighter escort to the transport area, especially should hostile naval forces approach.[7]

In part, this pessimism reflected the prevalent view at the time that carrier-based planes could not stand up to their land-based counterparts. This view, in turn, was reflected in contemporary amphibious doctrine which stated that, "Even a small opposing air force, skillfully handled at the crucial moment and not effectively neutralized, may so disrupt the landing as to force withdrawal."[8] To counteract this disadvantage, doctrine recommended a friendly air advantage of four to one, a condition that did not exist in SOPAC in August 1942.

As a result of these concerns, the JCS shifted D-day to 7 August 1942, but refused to delay the operation further. To prepare for the landing, Admiral Fletcher held a meeting of the senior commanders on board his flagship, the *Saratoga*, near Koro Island, Fiji Islands, on 26 July 1942. Admiral Turner and General Vandegrift attended as did Rear Adm. Daniel J. Callaghan, the SOPAC chief of staff, who represented Admiral Ghormley. Admiral Ghormley's pessimism about the coming operation had obviously been transmitted to Admiral Fletcher, who, in General Vandegrift's words, "quickly let us know he did not think it would succeed."[9] Fletcher also dismayed the landing force commander by stating that he would withdraw the carriers after two days in spite of Admiral Turner's estimate of five days required to unload all of the Marines' supplies.

Admiral Fletcher's views were influenced by two other factors in addition to the views of his immediate superior:

- General instructions issued by Admiral Nimitz before Midway to govern future operations stated:

> You will be governed by the principle of calculate risks which you shall interpret to mean the avoidance of your force to attack by superior force without good

prospect of inflicting, as a result of such exposure, greater damage to the enemy. This applies to a landing phase as well as during preliminary air attacks.[10]

- By the time of Guadalcanal, Fletcher, who was not a naval aviator, had become particularly sensitive to risking carriers under his command. In previous operations, he had lost two carriers, the *Lexington* at the Coral Sea and the *Yorktown* at Midway. Fletcher's sensitivity was exacerbated by his realization that his force represented three quarters of the Navy's battle carrier strength and by criticism from naval aviators that his lack of flight training adversely affected his ability to command carriers in battle.

Movement to the objective area was uneventful, and D-day for Operation WATCHTOWER found TF 61 arrayed as follows:

- TG 61.1 (carrier force) was located sixty-eight miles southwest of Tulagi. The task group commander, Admiral Noyes, controlled the air support operation from his flagship, the *Wasp*. Admiral Fletcher, the expeditionary force commander, chose to remain with the carriers in his flagship, the *Saratoga*. From their position southwest of the objective, TG 61.1 prepared to carry out a threefold mission to:

  - Cooperate with the amphibious force commander (Turner) by supplying air support for the landing.

  - Protect the carriers from enemy air attack.

  - Make air searches as seen advisable or as ordered.[11]

- TF 62 (amphibious force) was located in Sealark channel off the Tulagi and Guadalcanal landing beaches. Because of the distance between the two islands, Admiral Turner divided his force into two separate groups:

  - Transport Group X-ray landed most of the 1st Marine Division near Lunga Point on Guadalcanal. Admiral Turner and General Vandegrift remained with this group in Turner's flagship, the USS *McCawley* (AP-10). The *McCawley* began life in 1928 as a commercial steamship and was commissioned as a Navy transport in 1940. The Navy designated the *McCawley* as a flagship in June 1942, even though CINCLANT has stated in 1941 that the ship was not equipped to carry out a landing in force.[12]

  - Transport Group Yoke landed one regiment from the 1st Division, the 1st Raider Battalion, and the 1st Parachute Battalion across Sealark Channel on Tulagi and the two smaller connected islets of Tanambogo and Gavutu. Brig.

Gen. William H. Rupertus, the assistant division commander of the 1st Marine Division commanded this group. During the landing, he was in USS *Neville* (AP-16), the flagship of Transport GroupYoke.

Admiral Fletcher planned to provide air support for both landings without exposing his three carriers any more than necessary to enemy air attack. On D-day, aircraft from the *Saratoga* supported the landing on Guadalcanal while aircraft from the *Wasp* supported the landing on Tulagi. Aircraft from the *Enterprise* were split between the two objectives. Fighters from the all three carriers maintained a combat air patrol (CAP) over the carriers and the two objectives. Aircraft were controlled from the air by air group commanders flying on a rotating basis. Supporting aircraft had no direct link with assault troops on the ground. Requests for air support from ground forces were passed to air group commanders overhead through two air support groups, one for Guadalcanal located in Admiral Turner's flagship, the *McCawley* and one for Tulagi located in USS *Neville* with the command post (CP) for Brigadier General Rupertus. To coordinate air defense, fighter direction officers (FDO) were located in the USS *Chicago* (CA-29) for the objectives and in the *Enterprise* for the carriers. Admiral Turner wanted to have the FDO in HMAS *Australia* with Admiral Crutchley, but discovered that the Australian cruiser's radars were not adequate for the task. During the rehearsal held at Koro Island on 30 July 1942, the amphibious and carrier forces tested the proposed air support plan and found it to be workable.

Considering the unproven state of U.S. amphibious doctrine and the limited experience of the forces involved–WATCHTOWER was the first U.S.landing of the war–the initial assaults went remarkably well. The Guadalcanal landing was unopposed. The Japanese construction troops on the island fled inland without offering resistance. The Japanese special naval landing force (SNLF) troops on Tulagi put up a stiff resistance that offered a preview of Japanese defenses to come in the central Pacific. In spite of the opposition, the Marines were able to secure the islands by early morning on 9 August.

As Admiral Fletcher had feared, Japanese aircraft also proved to be a serious threat. On D-day, two Japanese flying boats from Tulagi flew close to TF 61, but failed to detect it because of bad weather. Once the landings began, however, the Japanese reacted quickly. The commander of the Japanese Navy's 5th Air Attack Force on Rabaul diverted a strike that had been planned for targets in New Guinea and ordered it to attack Turner's force off Guadalcanal. The strike consisted of twenty-seven twin-engine bombers escorted by eighteen Zero fighters. The attackers reached Guadalcanal shortly after 1300 and precipitated a major air battle with U.S. Navy F4F fighters and SBD dive bombers that were on the scene. In this first battle between U.S. carrier planes and land-based Zeros, the Americans were credited with seven bombers, two probables, and two Zeros shot down. The cost was nine F4Fs (half the total engaged) and one SBD.[13] The Japanese bombers were armed with bombs and were unable to damage any of Turner's ships.

A second raid consisting of nine unescorted Type 99 dive bombers reached Guadalcanal later on the afternoon of D-day. Although they were carrier type aircraft they had flown from Rabaul, 560 miles to the north. Lacking the range to reach Guadalcanal and return to their base, the Japanese pilots planned to ditch their airplanes in the sea on the way back to Rabaul. Five of the dive bombers were shot down over the target, but not before one damaged the USS *Mugford* (DD-389). The presence of carrier-type aircraft in the area also increased Admiral Fletcher's apprehension that a Japanese carrier might be nearby.

The following morning, the Japanese launched another attack, this time with twenty-three twin-engine bombers armed with torpedoes and escorted by fifteen zeros. Their target was the American carriers, but when Japanese flying boats were unable to locate the carriers, the strike was diverted to the transports off Guadalcanal. The Japanese were met by both American fighters and heavy antiaircraft fire which combined to shoot down seventeen of the attacking bombers. One bomber put a torpedo into the USS *Jarvis* (DD-393), and another bomber crashed into the transport *George F. Elliott* (AP-13) setting it on fire.

Although this raid did not significantly damage TF 62, it did disrupt the unloading of Marines and their supplies. It also confirmed Admiral Fletcher's worst fears concerning the threat to his carriers. At 1807 on 8 August, after evaluating the results of the raid, Admiral Fletcher sent the following message to Admiral Ghormley:

> Fighter plane strength reduced from 99 to 78. In view of the large number of enemy torpedo planes and bombers in this area, I recommend the immediate withdrawal of my carriers. Request tankers sent forward immediately as fuel running low.[14]

Without waiting for his superior's reply, Fletcher began the withdrawal. When he had not received a reply, by 0100 on 9 August, he turned the carriers back towards Guadalcanal.

About 0300, Fletcher received a message from Guadalcanal informing him of the disastrous night attack on TF 62 by a force of Japanese cruisers and destroyers under the command of Rear Adm. Gunichi Mikawa. Catching the Americans by surprise, the Japanese sank four cruisers and a destroyer and damaged another cruiser and two destroyers while suffering only minor damage themselves. In what Americans call the Battle of Savo Island, the Japanese inflicted on the U.S. Navy what is arguably its worst defeat ever. Receipt of this information precipitated an argument among Fletcher's subordinates in the carrier force. Some, including Capt. Forrest Sherman of the *Wasp*, wanted to launch an immediate strike against Mikawa's cruisers and destroyers. Fletcher overruled this recommendation, and, after receiving permission from Ghormley to retire, once again turned away from Guadalcanal.

Shortly before Fletcher made his final decision to withdraw, Admiral Mikawa found himself facing a similar decision. By 0200 on 9 August, the Japanese had won a stunning victory over TF 62's screening group, but Mikawa had not accomplished his mission, which was to sink Turner's transports. With sixty percent of his shells remaining and more than half of his torpedoes, Mikawa could have proceeded on with almost certainty of success. Had he done so, however, he could not have withdrawn beyond range of Fletcher's carrier planes before daylight. Unaware that Fletcher was with-drawing, and, like his American opponent, fearing air attack, Mikawa himself chose to withdraw. Not a single carrier plane participated in the Battle of Savo Island, but the threat of their intervention nevertheless saved the U.S. amphibious force from almost certain destruction.

Admiral Turner appreciated his good fortune, but also realized that he could not remain off the invasion beaches indefinitely without air cover. Accordingly, he notified General Vandegrift that the transports would withdraw by the end of the day on 9 August. After a yeoman effort to unload as many of the Marines' supplies as possible, Turner departed. The stage was thus set for the epic struggle for Guadalcanal that was as much a battle to keep the Marines supplied and supported as it was a fight against the Japanese defenders. A description of that struggle is beyond the scope of this paper, but several important points should be noted:

- In theory, very few of the problems encountered during the WATCHTOWER landings can be attributed to the command relationships between the carriers (TG 61.1) and the amphibious forces (TF 62). Admiral Fletcher controlled both forces with no significant restrictions on how he could employ them.

- The essential weakness of the command arrangement lay not in its formal structure, but in how the commander, Admiral Fletcher, viewed his role. He clearly saw himself more as a carrier commander responsible for the safety of the carriers than as an expeditionary force commander responsible for the accomplishment of the overall mission of seizing Guadalcanal. Years after the war, Admiral Turner commented on Fletcher's perspective, saying:

Had TF 63 been included in the Expeditionary Force, perhaps Frank Jack would have felt more like an Expeditionary Force Commander and assumed a greater responsibility for sticking with the whole Force through to a success.[15]

- Turner's comment also points out the biggest structural weakness of the TF 61 organization. The expeditionary force did not include the land-based reconnaissance aviation needed to protect the force from surprise. Those forces came from TF 63 and the SWPA, neither of which were controlled by Admiral Fletcher.

- Within TF 62, the arrangement by which Turner exercised command over the landing force vice operational control caused severe problems for the Marines. Turner, for example, used his authority in an attempt to reorganize Marine infantry battalions into raider battalions at the same time that the Commandant of the Marine Corps wanted to do exactly the opposite.

An overall analysis of Operation WATCHTOWER points to five basic questions that should be answered when evaluating the relationship between the carriers and amphibious forces during an amphibious operation:

1. What is the lowest level of command at which a single individual has control of all of the forces required to accomplish the mission? For Operation WATCHTOWER, Admiral Fletcher controlled both the carriers and the amphibious forces, but lacked control of land-based aviation needed for reconnaissance. As a minimum, only COMSOPAC, Admiral Ghormley, controlled all three assets. If one counts the land-based air from the SWPA needed to search Japanese approach routes north of Guadalcanal, no one short of the JCS controlled all of the assets needed to accomplish task one.

2. Is the accomplishment of the immediate amphibious mission the primary concern of the individual who controls the assets needed to accomplish that mission? For the JCS and General MacArthur, Operation WATCHTOWER was an important concern, but not the only one on their agendas at the time. For Ghormley and Fletcher, seizing Guadalcanal should have been their overriding concern, but it turned out not to be. The concern that Fletcher, showed–and other carrier commanders have since shown–for the safety of the carriers militates against any command structure that places the carrier commander in overall command of an amphibious operation.

3. Is the commander responsible for the overall mission located where he can monitor the progress of the operation, first hand, and personally influence the outcome of the battle if necessary? During Operation WATCHTOWER, Admiral Ghormley remained in his headquarters in New Caledonia from which he received little timely information and exercised virtually no influence on the battle. Fletcher was closer to the action, but, his remaining with the carriers ensured he had no first-hand knowledge of the landing for which he was responsible. Analyzing this aspect of command in his post-war study of the operation, Commodore Richard W. Bates noted:

> [E]xperience has shown that it is generally wiser for the Supreme Tactical Commander to place himself within the amphibious force during landing operations and within the covering force if action with enemy surface forces
> is imminent.[16]

To do this, however, presupposes a commander with a flagship not required by either force for other purposes. Fletcher limited his ability to move between the forces by retaining a carrier as his flagship. In fairness, however, Fletcher's choices were limited. Dedicated command ships (AGCs) had not yet arrived on the scene. Had Fletcher, like Turner, chosen a transport for his flagship, he would have been tied to the landing beaches and unable to operate with the carriers had that become necessary.

4. Does the commander responsible for the overall mission have a staff capable of dealing with the complexities of both carrier operations and amphibious warfare? Fletcher's staff at Guadalcanal was fully capable of dealing with carrier operations, but had no capability to deal with amphibious operations. The nature of Fletcher's staff undoubtedly tended to reinforce his predisposition to focus only on the carrier aspects of Operation WATCHTOWER.

5. Did the air control system in use allow carrier aircraft to support the landing adequately? The air control system used at Guadalcanal was rudimentary in concept. After action reports concluded that planning had been generally sound, but that lack of experience had caused severe problems. The reports made various recommendations concerning, procedures, radio frequencies, and the need for a dedicated command ship. Regarding air support, it concluded that "there is a need for closer and more rapid coordination between responsible commanders of the various forces involved...."[17]

In 1983, Adm. Wesley McDonald, the Commander in Chief of the U.S. Atlantic Command (USCINCLANT), was given the mission of seizing the Caribbean island of Grenada by means of a joint airborne/amphibious operation. Faced with a very short deadline to carry out the mission, he assigned the mission to a standing joint task force designated JTF 120. Vice Adm. Joseph Metcalf III, the commander of the U.S. Second Fleet, was the designated commander of JTF 120.[18]

A comparison of JTF 120 with Admiral Fletcher's TF 61 at Guadalcanal highlights several points:

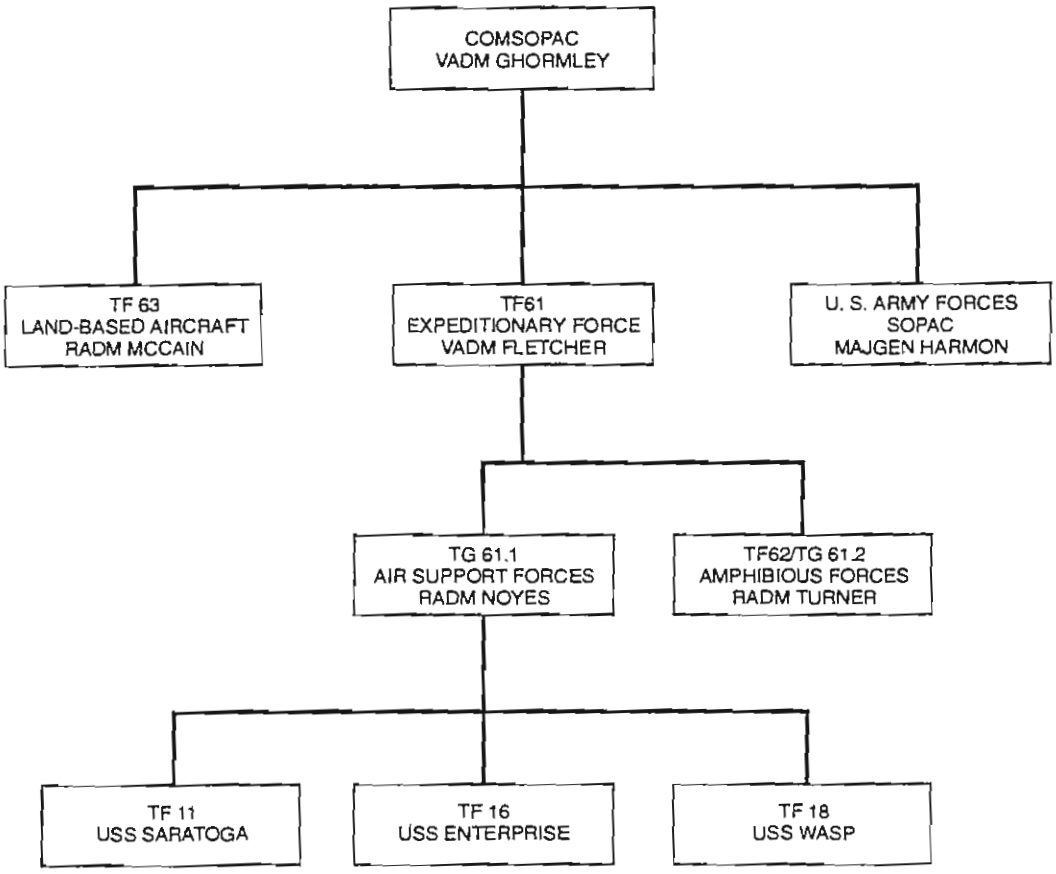
- JTF 120 was a joint force that included an airborne task force (TF 121) and a separate Ranger task force (TF 123) in addition to the Navy/Marine Corps amphibious task force (TF 124). More importantly. JTF 120 had a land-base Air Force component (TF 126), the lack of which had been a major weakness of Fletcher's TF 62.

On the minus side, Metcalf, as CJTF 120, did not have operational control of the *Independence* (CV-62) battle group (TG 20.5) that was assigned to support the operation. Perhaps to avoid setting the precedent of giving operational control of an aircraft carrier to a joint task force that might be commanded in another operation by an officer from

another service, the Navy placed TG 20.5 in support of JTF 120. In practical terms, this arrangement had little impact because, in his role of commander, Second Fleet, Metcalf commanded the carrier battle group. In theory, however, the carrier battle group and JTF120 had no common superior short of the theater commander.

- JTF 120 had a staff of 88 officers "on call" for contingencies. Because of the short planning time available, however, Admiral Metcalf chose to build an *ad hoc* staff around fifteen officers from his Second Fleet staff augmented by specialists from other organizations.

A small staff was also necessitated by Metcalf's choice of a flagship for the operation. With inadequate time to send a tailored amphibious task force from the United States to Grenada, the JCS diverted the 22nd Marine Amphibious Unit (MAU), which was on its way to Lebanon. The 22nd MAU was embarked in ships of Amphibious Squadron 4, and Admiral Metcalf chose the squadron flagship, the USS *Guam* (LPH-9) as his flagship for Operation URGENT FURY. The addition of the JTF staff overtaxed the command and control capabilities of the *Guam,* which were also needed to support the MAU and the amphibious squadron during the operation. Admiral Metcalf attributed some of the communications problems that plagued the operation to outdated equipment on the *Guam,* but noted that even the sophisticated communications of his Second Fleet flagship, the *Mount Whitney* (LCC-20) would have been inadequate to solve the service interoperability problems that arose during the Grenada operation.[19]



SEE FIG. 2 FOR
TF 62 ORGANIZATION

FIG. 1

SOUTH PACIFIC THEATER
OPERATION WATCHTOWER

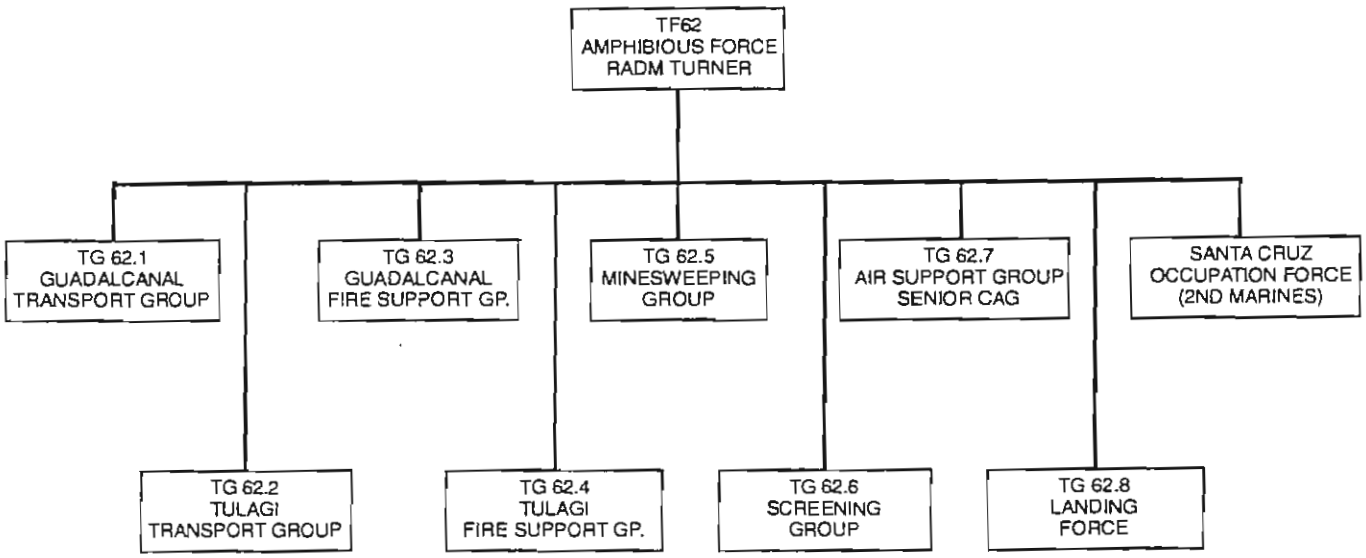


FIG. 2

TF 62
OPERATION WATCHTOWER

SECTION III

THE INTER-THEATER COMMAND MODEL

Following the successful seizure of Guadalcanal, control of the completion of tasks two and three passed to General MacArthur as planned. This resulted in a two-pronged offensive toward Rabaul. The eastern prong moved up the Solomons under the tactical control of Vice Adm. William F. Halsey, who had replaced Admiral Ghormley as COMSOPAC on 18 October 1942. Overall strategic direction of the campaign, however, rested with General MacArthur.

Halsey employed forces from the Pacific Ocean Area including, occasionally, aircraft carriers. Because of the short distances between islands, however, he generally relied on land-based aircraft to support his landings. Even when carriers were available, the normally aggressive Halsey displayed a reluctance to bring them within the range of Japanese land-based aircraft. During the fighting on New Georgia, for example, Rear Adm. Frederick C. Sherman's Carrier Division 1 was assigned to SOPAC with two carriers, the USS *Saratoga* and HMS *Victorious*. Halsey would not commit the carriers to supporting the Marines ashore, which caused Sherman to note in his diary, "He is keeping [the carriers] at sea...[and] will not use them under present conditions in a raid or operation where they might get hit by shore-based air."[1]

Halsey's drive continued northward until it was effectively ended in March 1944 with the capture of Emirau, a victory that marked the final step in the effort to neutralize and bypass Rabaul rather than seize it. By that time, Halsey had also become commander, Third Fleet, in keeping with a decision to give U.S. fleets numerical rather than geographical designations.

Meanwhile, MacArthur's SWPA forces had been conducting a parallel amphibious drive along the northern/eastern coast of New Guinea and its nearby islands. The style of amphibious warfare that developed there was dictated primarily by three factors:

- The nature of the terrain–the northern/eastern New Guinea coast is more than one thousand miles long, for example–allowed MacArthur to choose landing sites where enemy resistance would be either limited or non-existent.

- The lack of aircraft carriers in MacArthur's naval forces forced him to rely on land-based aircraft to support his landings. The practical effect of this situation was to limit the distance of any single advance to approximately 350 miles, the combat radius of most Air Force fighters in the theater.

In MacArthur's words:

> This radius had to be measured from the actual location of our ground air bases. This required the seizing or construction of such new bases at each forward movement. The presence of carriers, with their inherent movability, would have immeasurably increased the scope and speed of our operations. I know of no other area or no other theater where they could have been used to such advantage.[2]

- The small number of amphibious transports (APAs) available to MacArthur forced him to adopt a "shore-to-shore" approach in which assault troops were delivered from the embarkation areas to the objective on board landing craft and ships such as LSTs, LCIs, and LCTs. The limited amount of time troops could remain on those vessels also restricted the length of MacArthur's advances.

The result of these limitations was a style of amphibious operations in which the amphibious forces approached the objective area under cover of darkness and landed at first light after a minimum air and naval gunfire bombardment. Troops and supplies were then landed as rapidly as possible in order to allow the amphibious ships to make what Rear Adm. Daniel E. Barbey, commander of MacArthur's amphibious forces, called "a quick getaway."[3] Lacking the naval forces needed to prevent another Savo Island, Admiral Barbey reduced the Japanese incentive for such an operation by removing the target. By planning a quick withdrawal, Barbey, in effect, notified the Army landing forces that they could not count on the Navy to remain in the objective area to support them.

General MacArthur's planners were forced to reexamine this concept of amphibious warfare in March 1944 when he made the decision to cancel a planned move to attack Hansa Bay and jump instead to the vicinity of Hollandia, Dutch New Guinea. A move to Hollandia involved a leap of more than four hundred miles, too far to be supported by land-based fighters. To support this move, the JCS directed Admiral Nimitz to furnish MacArthur an adequate number of carriers. SWPA and POA planners met in Brisbane, Australia, on 25-26 March to carry out the necessary planning.

The resulting organization is shown in figures 3 and 4. A number of points are worth noting.

- Most important is the lack of unity of command. MacArthur did not command the fast carriers that were so important to the success of the operation. TF 58 remained under Nimitz's control and operated only in support of MacArthur's forces. Once again, the Navy exhibited its reluctance to turn control of the fast carriers over to someone other than a U.S. Navy officer.

- To some degree, this lack of control of the fast carriers was ameliorated by the availability of escort carriers (CVEs). Originally conceived as a means of providing Atlantic convoys both an airborne anti-submarine warfare (ASW) capability and protection from marauding German bombers, these small carriers were soon adapted to amphibious warfare. Converted from merchant-type hulls, the CVEs were slower, less protected, and less capable than the fast carriers. These same qualities, however, caused the Navy to regard the CVEs as more expendable than their larger sisters. For the Hollandia operation, Nimitz transferred control of eight CVEs to Vice Adm. Thomas C. Kinkaid's Seventh Fleet under which they became TF 78.

- Even within the forces that MacArthur did command, his command organization was a component one that reflected unity of command only at the level of the theater commander himself. Forces were commanded through air, ground, and naval chains that generally required commanders from different services to operate by cooperation. Naval patrol aircraft (TF 73), however, were controlled through the air chain of command, not the naval one.

MacArthur took several steps to reduce the potential problems associated with a lack of unity of command during the amphibious operations he conducted in the SWPA. First, he frequently placed himself at the scene of the landings in a position to influence the battle personally if that should become necessary. At Hollandia, for example, he was on board the USS *Nashville* (CL-43) off the beaches during the landing.

Second, during the amphibious phase of landings conducted in the SWPA the pertinent operations orders created a unity of command that is not apparent from the organizational wiring diagrams. To begin, the CATFs (naval attack group commanders in the language of the day) controlled the embarked landing forces during the landings and the subsequent fighting ashore until the landing force commanders were prepared to assume control ashore. This relationship is stated explicitly in TF 77's operation plan for Hollandia.[4]

The CATF also maintained control of aircraft operating over the beaches regardless of the source of the aircraft. This control was exercised through a commander, support aircraft, on the flagship for close support missions and through a separate fighter director located on a nearby destroyer for the combat air patrol. TF 77 OPLAN 3-44 for the Hollandia-Aitape operation mentions four participating "air forces."[5]

- Allied Air Forces, land-based aviation.
- Naval aviation, SWPA.
- Fast Carrier Groups, Fifth Fleet.
- Escort carrier Groups, attached to the Allied Naval Forces.

Not specifically mentioned, but also participating and requiring control were spotting aircraft from cruisers providing naval gunfire for the landings.

The nature of the operation required that the forces, including air forces, be divided between three separate landings controlled overall by Admiral Barbey and Lt. Gen. Robert L. Eichelberger, Commander U.S. I Corps. The Hollandia part of the operation consisted of two separate landings. At Tanamerah Bay, the Western Attack Group under Admiral Barbey landed the 24th Infantry Division (rein) less one regimental combat team (RCT). At Humboldt Bay, the Central attack Group under Rear Adm. William M. Fechteler landed the 41st Infantry Division (rein) less one RCT. Simultaneously, the Eastern Attack Group under Capt. Alfred G. Noble landed the 163rd RCT at Aitape, 125 miles southeast of Humboldt Bay.

Although bombers from the U.S. Fifth Air Force were to bomb Japanese airfields in the objective areas before D-day, direct support for the landings was the responsibility of carrier aircraft. The initial plan called for the CVEs to support all three landings. They would be reinforced at Hollandia by the fast carriers after TF 58 completed pre-D-day strikes on Japanese bases in the Palaus and on airfields in the objective area.[6] This plan was later modified to split the forces geographically with the CVEs at Aitape and the fast carriers at Hollandia. General MacArthur wanted the carriers to support the operation until his engineers were able to make captured airfields usable by Allied fighters. Admiral Nimitz was unwilling, as Admiral Fletcher had been at Guadalcanal, to expose the fast carriers to the threat of land-based Japanese air for more than a limited time and scheduled TF 58 to depart the objective area on D plus 2.[7] The more expendable CVEs would assume responsibility for Hollandia at that time. They would remain there until D plus 19 at the latest after which they would return to Fifth Fleet control.

The landings themselves went more or less according to plan. Before D-day, Allied Air Forces, SWPA, and carrier aviation from TF 58 repeatedly struck Japanese air fields in the objective area and within supporting range. As a result of these strikes, all three attack forces were able to land their landing forces without interference from Japanese aircraft. On the ground, naval gunfire preparatory fires evokes so little response that last-minute air strikes were canceled. Japanese defenders largely fled into the interior of New Guinea allowing the attackers to land unopposed. As a result of the lack of opposition, TF 58 was able to depart the objective area on D plus 2.[8] The CVEs assumed the role of supporting all three beachheads

while engineers prepared the captured airfields to received Allied aircraft. By 4 May 1944, General Kenney's Allied Air Forces had enough fighters operating from airfields in the objective area that MacArthur returned the CVEs to Fifth Fleet control.[9]

Unlike the Guadalcanal case, unity of command did not exist in the SWPA with respect to the carriers and amphibious forces. No one short of the JCS controlled all the forces needed to make the landing. Within the SWPA, unity of command existed only at the level of MacArthur himself. The limitations of this situation were reduced, however, by the command measures taken to give the CATF command of all forces during the actual landing, and by MacArthur's physical presence at the scene of the operation.

Although MacArthur's attention on D-day was clearly focused on the landings themselves, they were not his only concern. He remained, of course, responsible for all the other military operations taking place in the theater at the time. Admiral Barbey, on the other hand, could focus his attention completely on the amphibious operations taking place. Admiral Barbey also had a staff capable of dealing with all aspects of the landing.

Amphibious command ships (AGCs) had not arrived in the SWPA in time to participate in the Hollandia-Aitape operation. As a result, Admiral Barbey and his two subordinate CATFs had to control the operations from destroyers. General MacArthur chose to place himself on board a cruiser that also had a naval gunfire mission.

The air control system used at Hollandia was one that was continuing to improve. In addition to the basic elements that have already been described, the system included:

- An air coordinator airborne over each objective to coordinate air strikes through the commander, support aircraft.

- A specially trained air liaison observer from the landing force airborne over each objective area.

- When requested, carrier aircraft over each objective to carry artillery forward observers from the landing forces.

- Air liaison parties to land at each objective to handle air support requests from the landing force.

All these diverse elements were provided for in a detailed air annex to CATF's operation plan.[10]

Following the Hollandia-Aitape operation, MacArthur's forces continued their drive along the New guinea coast in preparation for their eventual return to the Philippines. Initially

that return was expected to take the form of landings in Mindanao in October 1944. After high-level discussions that considered the possibility of bypassing the Philippines, the JCS decided to leapfrog Mindanao and land at Leyte Gulf on 20 October 1944.

As had been the case with Hollandia, MacArthur required aircraft carriers to accomplish the mission and an arrangement was worked out with Admiral Nimitz similar to the one that had been used earlier. As can be seen from figure 5, the differences are ones of scale, not principle.

TG 77.4, the escort carrier group under Rear Adm. Thomas L. Sprague was organized into three operational units designated "Taffy" 1, 2, and 3. Each unit consisted of six CVEs and an appropriate screen. The carriers were equipped with a mix of fighters and Avenger torpedo planes. Two of the ships had F6F Hellcat fighters like those on the fast carriers. The remaining 16 CVEs had less capable FM-2 fighters, General Motors manufactured models of the earlier F4F Wildcat fighter from Guadalcanal days.

The CVE air units were trained and equipped to provide close air support for the landings and air and anti-submarine protection for the amphibious ships. That was exactly the mission assigned to them for the Leyte landing.[11] The CVEs could provide a limited CAP for themselves, but they were never intended to deal with a major enemy air or surface threat. That role was assigned to the fast carriers. For the Leyte landing, that role was assigned to Admiral Halsey's Third Fleet. Specifically, the mission was assigned to Vice Adm. Marc A. Mitscher's TF 38.*

Although not under MacArthur's control, Halsey' force–a mix of seventeen fleet and light carriers–was to support the Leyte operation in the following ways:[12]

- Contain or destroy the Japanese Fleet.

- Destroy Japanese air and shipping in the Formosa, Luzon, Visayas, and Mindanao area from A minus 9 through A minus 3 and from A-day through A plus 30 as necessary. MacArthur had designated the D-day for Leyte as A-day, supposedly to ensure a distinction from the now famous D-Day at Normandy.

- Destroy ground defenses, installations, and shipping in the objective area from A minus 2 until the CVEs could arrive and assume that mission.

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*This same carrier force was designated TF 58 when it operated under Fifth Fleet control as it had at Hollandia.

- Provide direct support for the landing as required. Halsey focused particularly on the first part of the mission. This focus was reinforced by a paragraph in Nimitz's orders to Halsey that stated:

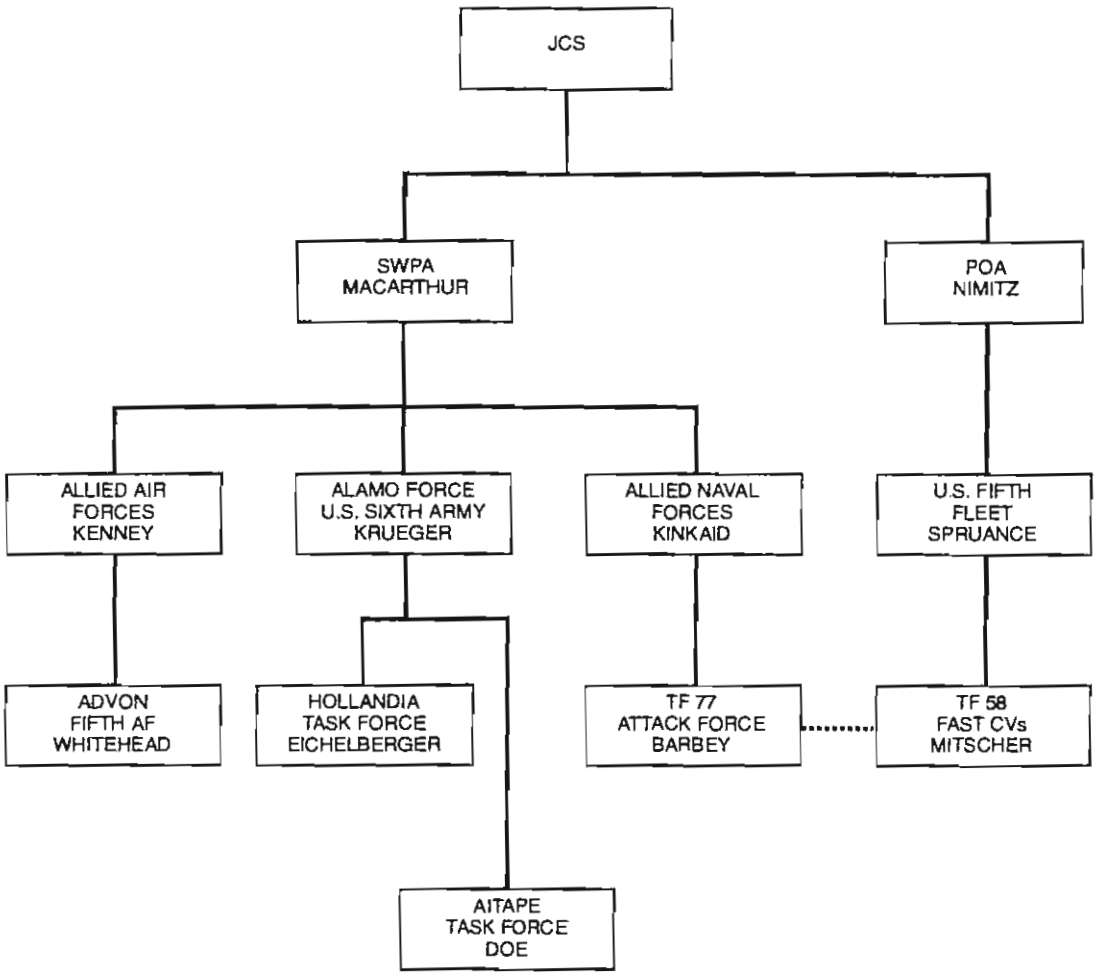
  In case opportunity for destruction of major portion of the enemy fleet offer or can be created, such destruction becomes the primary task.[13]

Halsey was also concerned about how long his carriers would remained tied to the beaches. On D plus 1, he asked MacArthur when he could be freed from his supporting role. MacArthur replied that success of the landing was "predicated upon full support by the Third Fleet," and that "your mission to cover this operation is essential and paramount."[14]

The Japanese had also been wrestling with the problem of how to deal with the U.S. carriers during a landing. The Japanese SHO (Victory) Plan for Leyte envisioned two battleship forces converging on the landing site from different directions to destroy the American amphibious forces. To deal with Halsey's Third Fleet, the Japanese planned a deception that involved the few carriers and planes that had survived the Battle of the Philippine Sea (see Section IV). Essentially the plan involved luring Halsey away from the landing by using the Japanese carriers as bait.

A detailed description of the Battle of Leyte Gulf is beyond the scope of this paper, but the Japanese ruse essentially worked as planned. The Japanese carrier force under Vice Adm. Jisabur Ozawa lured Halsey's force away from San Bernardino Strait long enough for a force under Vice Adm. Takeo Kurita to slip through unopposed. Fortunately for MacArthur, Kurita's force which included the battleship *Yamato* ran into the U.S. CVEs off Samar. The small carriers and their escorts put up a heroic defense that eventually caused Kurita to retire without accomplishing his mission of attacking the Leyte beachhead. During the Leyte Gulf operation, the Japanese introduced the first official kamikaze units. Although the kamikazes were to attack both amphibious ships and carriers, the latter received the most attention. During the operation, kamikazes sank one CVE the *St. Lo*, and damaged six others.[15] This effort emphasized the need to develop airfields ashore so that land-based air could relieve the carriers. The first Air Force squadrons began operating ashore on 27 October at which time General Kenney assumed responsibility for air operations at Leyte.[16] Because of limited facilities ashore, however, Halsey's carriers were forced to continue their support for another month. For Leyte, land-based air included U.S. Marine Corps squadrons that began arriving as early as 3 December.[17] During the long drive up the South Pacific, Marine aviation had been land based. They had been perfecting the techniques of close air support (CAS) of ground troops and continued that role in support of U.S. Army forces in the Philippines. The goal of Marine planners, however, was to combine this CAS ability with the capability to support amphibious operation conducted beyond the range of land-based air.

DOTTED LINE INDICATES
COOPERATION ONLY



ADVON = ADVANCED ECHELON

SEE FIG. 4 FOR
TF 77 ORGANIZATION

FIG. 3

SWPA
HOLLANDIA-AITAPE

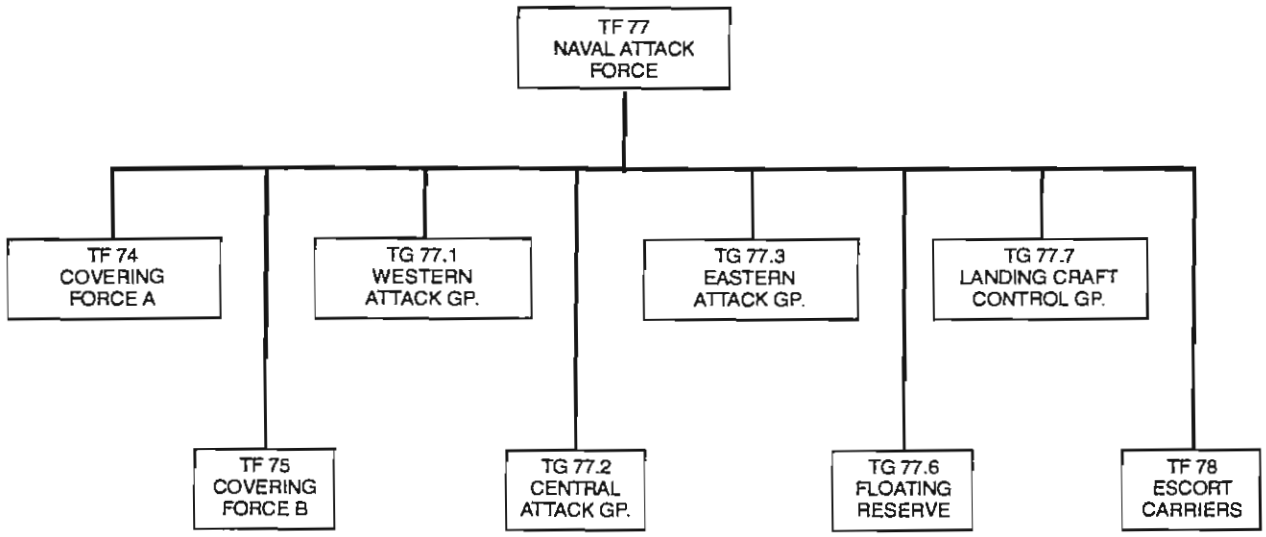


FIG. 4

TF 77
HOLLANDIA-AITAPE

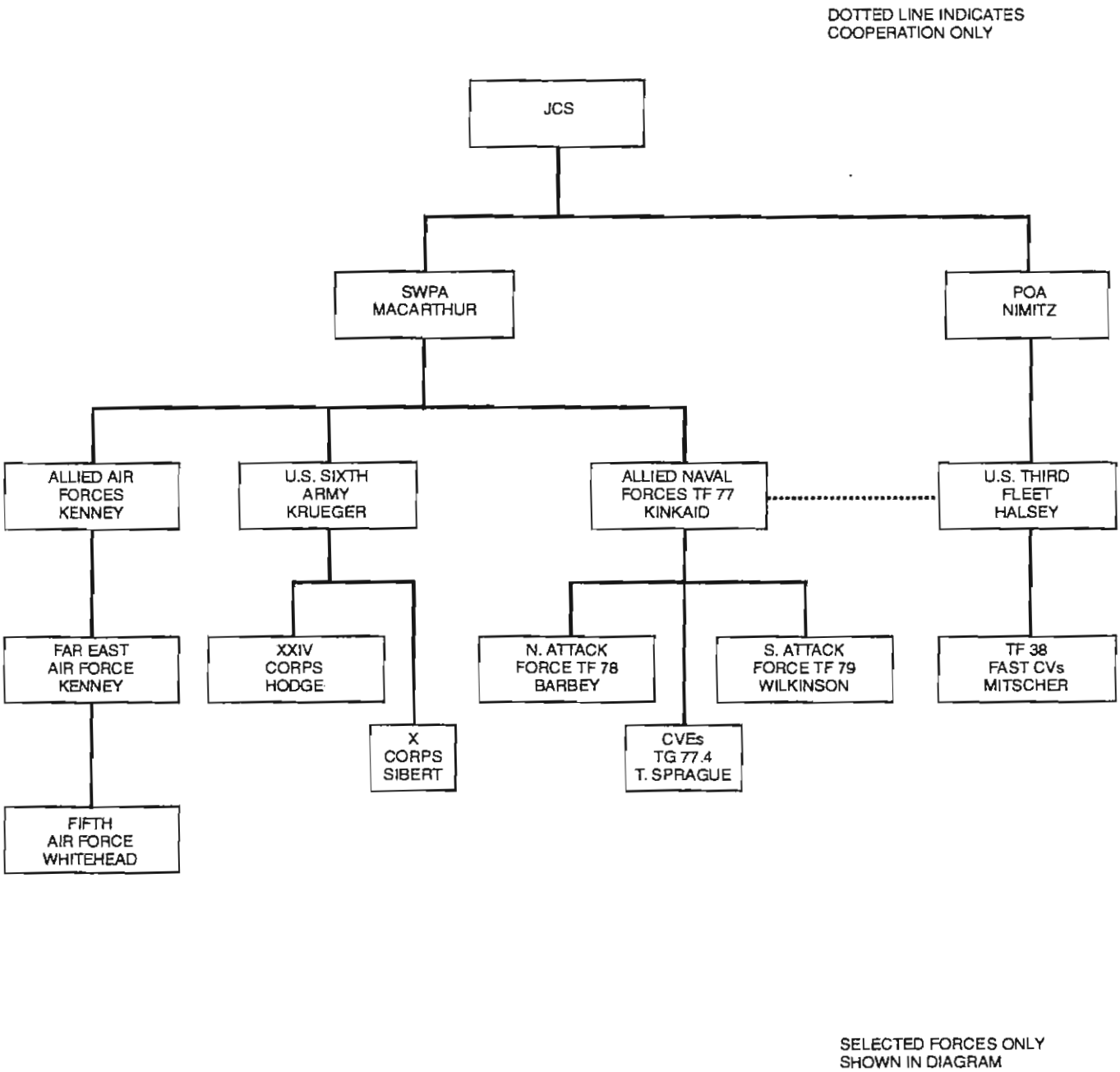


FIG. 5

SWPA
LEYTE

SECTION IV

THE FLEET COMMAND MODEL

As Admiral Nimitz's amphibious planners began to plan his central Pacific amphibious drive in the Gilberts, they had two particular concerns in mind.

First was the concern on the part of Marines that the Navy might once again abandon the landing force, as it had at Guadalcanal, if the naval forces were threatened by the Japanese fleet. Nimitz was determined that this would not happen and adopted an approach that differed radically from the one used in the SWPA. As indicated in Section III, MacArthur's amphibious commander adopted the idea of a quick getaway thereby notifying the Army that they could not count on the Navy to remain in the objective area after D-day.

In the central Pacific, the Navy assured the Marines that they could count on support from the Navy as long as that support was required. On the day before the assault on Tarawa, Maj. Gen. Julian C. Smith, commanding general of the 2nd Marine Division, notified his troops in an order of the day:

> Our Navy screens our operations and will support our attack tomorrow morning with the greatest concentration of aerial bombardment and naval gunfire in the history of warfare. It will remain with us until our objective is secured and our defenses are established.[1]

The second concern of planners was the realization that the Gilberts operation was to be the first real test of U.S. amphibious doctrine as contained in FTP 167. Landings in the South and Southwest Pacific had been either unopposed or lightly opposed. In the Gilberts, planners anticipated having to land against highly fortified atolls manned by troops determined to prevent the Americans from landing. All aspects of the doctrine were about to be tested including that regarding organization.

The fundamental principle of organization was that of unity of command. Under that principle, doctrine called for the CATF to control all forces needed to conduct the landing including the landing force and necessary air support. This principle was adhered to in the organization for the Gilberts (Operation GALVANIC) as can be seen in figures 6 and 7. A number of points are worth noting.

- A variety of organizations were involved in the operation including large carriers (CVs and CVLs), escort carriers (CVEs), land-based bombers and patrol planes, and spotting planes from carriers and cruisers. The CATF controlled the CVEs and spotting aircraft as CATFs did in the SWPA when CVEs were available. Under the

fleet command model used in the central Pacific, however, a fleet commander on the scene of the landing who was responsible for its overall success also controlled both the large carriers and the land-based aircraft supporting the operation. Unlike the two previous models, the fleet command model placed under the control of a single commander all the assets required to prepare the landing site, conduct the landing, and protect the amphibious forces from air and naval attack in the process.

- Because the two main objectives, Tarawa and Makin, were too far apart for the landings to be controlled by a single CATF, Admiral Turner split his attack force into two separate attack groups. He retained command of the Northern Attack Group (TF 52) for the assault on Makin, but turned command of the Southern Attack Group (TF 53) over to Rear Adm. Harry W. Hill for the assault on Tarawa. As CTF 54, Turner remained responsible to Admiral Spruance for the overall conduct of both landings.

- In accordance with doctrine, the CATF for each landing retained control of the landing force during the amphibious assault until the CLF was prepared to assume control ashore. Concurrently with the creation of the Fifth Amphibious Force, Nimitz had also established the Fifth Amphibious Corps as the Fifth Fleet's landing force. Maj. Gen. Holland McTyeire Smith assumed command of this organization on in August 1943.[2] To Smith's chagrin, however, his role during the execution of Operation GALVANIC was only that of an adviser to Turner. The two landing force commanders, Maj. Gen. Julian C. Smith, USMC, at Tarawa, and Maj. Gen. Ralph C. Smith, USA, at Makin, reported directly to their respective CATFs.

As the planning for Operation GALVANIC proceeded, three separate, but related, issues surfaced that remained contentious ones throughout the Pacific war, were never fully resolved, and to some degree remain issues today.

- The first issue involved determining the best use of the fast carriers during amphibious operations. During the period immediately before a landing, Admiral Spruance used the fast carriers to neutralize Japanese airfields within fighter range of the landing site. During the landing, he used the carriers to isolate the objective area and protect the amphibious forces from attack by Japanese air or naval forces. U.S. naval aviators under the leadership of Vice Adm. John H. Towers, Nimitz's senior aviator, complained that this use of the carriers tied them to the objective area and unnecessarily restricted the offensive potential of the carriers. Towers wanted the carriers to operate in accordance with the concept developed in pre-war exercises that held they should be given "complete freedom of action."[3] In Tower's view this approach would protect the amphibious forces more surely than allowing the Japanese to have the initiative while U.S. carriers simply waited to react.

- The immediate focus of the second issue was the difference between U.S. Army and U.S. Marine Corps tactics, but these differences actually reflected a broader problem. The Army preferred to use a conservative approach to tactics in which troops advanced only after extensive preparation by artillery and other supporting arms. This approach reduced Army casualties, but was extremely time consuming. The Marine Corps took a more aggressive approach, bypassing pockets of resistance that could not be overcome rapidly. This approach generally resulted in quicker, but more costly, victories for the Marines than those of their Army counterparts. For the Navy, the longer the seizure of an island took, the longer the naval forces were tied to the shore with the resultant potential for battle in restricted waters and attendant casualties for naval forces.

- The third issue involved the employment of Army Air Force bombers. As fleet commander, Spruance had command of land-based aviation and regarded it as another supporting arm to be used in support of his amphibious operations. Air Force leaders, on the other hand, regarded the Air Force as an independent arm and lobbied for it to be employed as such under a separate Air Force chain of command like the ones that existed in the SWPA and Europe.

The first two of these issues came to a head during the Gilberts operation. On 1 November 1943, the 3rd Marine Division landed on Bougainville in Admiral Halsey's SOPAC area. To support the two-carrier TF 38 that Halsey had under his control, Nimitz sent three more carriers that were also scheduled to support the landings in the Gilberts on 20 November. Rather than tying the carriers to the beachhead, Halsey used them to strike Japanese naval forces passing through the base at Rabaul. One strike was so devastating that one Japanese officer considered it more catastrophic for the Japanese than Pearl Harbor had been for the Americans.[4] This action also reinforced the view held by most carrier admirals that offensive action was both the proper role for the large carriers and the surest way to protect amphibious operations from Japanese attack.

Admiral Spruance nevertheless insisted on a defensive posture for the carriers during amphibious operations. For GALVANIC, TF 50–the largest carrier force to date with a combined total of eleven CVs and CVLs–was positioned primarily to intercept any Japanese response from either Truk to the west or the Marshalls to the north. One of the four task groups was even designated as a "carrier interceptor group."[5] During the operation, Spruance's concept succeeded in that it largely protected the amphibious forces from Japanese attack. The carriers intercepted a number of Japanese air raids including the first successful night interception from a carrier.[6] Aviators continued to complain, however, that tying the carriers to geographical objective areas left them unneccesarily vulnerable to air attacks such as the 20 November torpedo attack on the USS *Independence* (CVL-22) that put her out of action for six months.

The sinking of another carrier during the operation also added weight to the argument that speed of attack was vital to the success of amphibious assaults. When planning the Gilberts operation, U.S. planners estimated that the Japanese Combined Fleet could react within three days. Access to Japanese plans after the war confirmed the accuracy of that estimate. To avoid the possibility of another Savo Island, Spruance wanted the two objectives taken within three days in order to free his task force for a decisive engagement with the Combined Fleet if that became possible.

This need for speed drove Marine Corps actions at Tarawa and probably increased casualties there. Before assaulting heavily fortified Betio, for example, the Marines wanted to seize nearby Bairiki and emplace artillery there to support the landing on Betio. Because this plan would have added an extra day to the operation, it was discarded. In spite of incredible resistance and heavy casualties, the 2nd Marine Division secured Betio in 76 hours, just four more hours than called for by the schedule.

At Makin, forces from the Army's 27th Infantry Division under Maj. Gen. Ralph Smith took a much more cautious approach. As a result, they required four days to secure the island. This delay might have gone largely unnoticed except for two factors. The first was the sinking of the USS *Liscome Bay* (CVE-56) by a Japanese submarine on 24 November. The carrier had been scheduled to leave earlier, but had remained off Makin to support the operation. More than six hundred officers and men were lost with the carrier including the admiral in command of the task group. When those casualties are added to those of the landing force, they nearly equal those of much more heavily defended Betio.

The second factor was the criticism leveled by Marine General Holland Smith against Army General Ralph Smith about the latter's tactics on Makin which the Marine general called "infuriatingly slow."[7] This initial run-in between the two generals gave the Marine commander a distrust of Ralph Smith and Army tactics in general that was to have serious consequences during the Marianas operation. Much has been written about this controversy, but the official U.S. Army history of the Makin landing notes H.M. Smith's criticism and states:

> Considering the size of the atoll, the nature of the enemy's defenses, and the great superiority of force enjoyed by the attacking troops, his criticism seems justified. It is all the more so when to the cost of tardiness is added the loss of a valuable escort aircraft carrier with more than half the hands aboard.[8]

The heavy casualties suffered by the 2nd Marine Division in taking Betio (more than 3,000 total with nearly 1,000 dead) inevitably raised the question of whether the operation had been worth it. After the war, H.M. Smith, embittered by what he considered to be a lack of recognition for his efforts, said that Tarawa had not been worth the cost.[9] Others, including Nimitz, Spruance, and Julian Smith, disagreed. They believed the mistakes made at Tarawa

were the inevitable result of initiating a new form of warfare and that similar mistakes would have been made wherever the first assault against a heavily defended beach had taken place. In the words of the official U.S. Marine Corps monograph on Tarawa:

> Tarawa served two important purposes: it demonstrated clearly the soundness of our doctrines of amphibious assault; it pointed out inevitable weaknesses in technique. If Tarawa was not the finished product that many later operations were, it had a greater importance in that it paved the way for those operations.[10]

For purposes of this paper, three of those "weaknesses in technique" stand out:

- For Tarawa, the role of H.M. Smith as commander of V Amphibious Corps was limited to that of an advisor to CATF. Although no particular problems can be attributed to this arrangement in the Gilberts, it was personally unsatisfactory to Smith and posed potential command problems for operations where the landing force was larger than a single division.

- Tarawa also reemphasized the need for specialized amphibious command ships, a need that had already been met in the European theater with the introduction of the AGC. CATF and CLF at both Tarawa and Makin were located on board battleships. Not only was space inadequate for their staffs, but the recoil of the ships' main batteries frequently knocked out radio communications with the beach. This became a serious problem at Tarawa. Admiral Spruance maintained his flag on the heavy cruiser *Indianapolis* (CA-35). The Admiral's small staff did not require a great deal of space, and the cruiser's speed allowed Spruance to operate with the fast carriers, something he could not have done had he chosen an amphibious ship for his flagship.

- Tarawa also exposed some problems regarding the close air support of amphibious operations. Support missions for the troops ashore were controlled by a commander, support aircraft located with CATF on board his flagship. The CAP over the beachhead was controlled by fighter directors located on destroyers. As CAP aircraft finished their time over the objective, they were supposed to report to the commander, support aircraft, for possible strafing missions before they returned to their carriers. This did not always happen because of poor communications, poor briefings, lack of standard procedures and other reasons. Other problems involved the marking of friendly troop positions and the timing of last-minute beach strafing before the assault waves landed. These problems, and many others were the subject of detailed after action reports, and steps were taken to correct them. For the next operation in the Marshalls, H.M. Smith was placed in the chain of command, and AGCs arrived to serve as flagships for the CATF and CLF. The various problems associated with air support were also tackled, but were not as amenable as the first two problems to a simple, quick solution. In any

event, the Gilberts operation set a general pattern for amphibious operations in the central Pacific that was steadily improved upon, but not altered radically for the remainder of the war.

A related problem that surfaced periodically involved the assignment of naval aviators to command and staff positions. At the start of the Gilberts operation, aviators were distinctly absent from influential positions with the exception of the direct command of carriers forces. At the CINCPAC/CINCPOA level Nimitz corrected this oversight by elevating Admiral Towers to be his deputy after the Marshalls operation and by assigning Rear Adm. Forrest Sherman as his deputy chief of staff for plans in December 1943. Spruance, on the other hand, had only one, relatively junior aviator on the Fifth Fleet staff, and that officer had very little influence on Spruance. This situation was not corrected until August 1944 when Spruance reluctantly accepted an aviator rear admiral as his chief of staff.

One example of the problems that prompted these personnel changes occurred on 27 December 1943 when Nimitz relieved Rear Adm. Charles A. Pownall as commander of the fast carrier task force without first notifying Spruance or asking him for his views on the subject. Spruance had been pleased with Pownall's performance and was upset that he had been removed. Towers and other aviators with Nimitz's ear believed that Pownall had not acted aggressively enough in handling the carriers during raids on the Gilberts and Marshalls. Nimitz replaced Pownall with Rear Adm. Marc A. Mitscher, a commander who epitomized the school that called for more aggressive, free-ranging employment of the fast carriers.

With Mitscher's appointment, the stage was set for a clash over the two views of how the fast carriers should be employed in support of a landing. That clash was to take place during Operation FORAGER, the seizure of the Marianas. Although the Marshalls might be considered to have represented the near perfection of the amphibious attack against small coral atolls, the Marianas represented two new problems for Spruance' forces.

- Unlike the tiny islands in the Gilberts and Marshalls, Saipan, Tinian, and Guam–the targets in the Marianas–were large islands with heavily vegetated, near mountainous terrain. His factor alone forced the American planners to anticipate much longer operations than the earlier 2-4 days ones.

- The Japanese had also designated the Marianas as being in an "absolute national defense sphere" that must be held at all cost. To back up this order, the Japanese Army transferred several divisions from, Japan and China to defend the islands. This represented a significant increase of ground defense forces compared with those present at earlier landings.

The combined effect of these difference meant that Spruance had to count on his amphibious forces being exposed to Japanese counterattack for much longer periods than they had previously experienced. Spruance was concerned about this, and his concern was well founded. Although the Japanese thought that the Americans would attack the Carolines before the Marianas, they knew more landings were inevitable. To counter the next landing, wherever it might occur, the Japanese reformed their carriers into a Mobile Fleet along the lines of TF 58. Commanded by Vice Adm. Jisabur Ozawa, the new fleet would attack the U.S. Fifth Fleet as soon as the Americans concentrated for their next major landing.

If the target turned out to be the Marianas, Ozawa had two tactical advantages to help offset his smaller number of carriers and lack of experienced aviators. First, Japanese carrier planes had a longer range than their U.S. counterparts because they lacked protective armor and had larger fuel tanks. Second, the Japanese had air fields on Guam. Using these two advantages, Ozawa could launch an attack on the American carriers while remaining out of range of American retaliation. After striking the American carriers, the Japanese planes could recover on Guam, rearm and strike the Americans again on the way back to Ozawa's carriers.

To meet this anticipated threat, Spruance organized his forces for Operation FORAGER using the pattern that had been established in the Gilberts. As can be seen from figure 8, the amphibious forces were formed into a northern force to seize Saipan and Tinian and a southern force to seize Guam. The CVEs necessary to provide close air support for the landings were responsible to the two CATFs. Spruance retained control of the large carriers (TF 58) and the land-based air supporting the operation (TF 57).

As Spruance received intelligence reports from various sources that indicated the Japanese Mobile Fleet was headed toward the Marianas, he began to plan his response. Spruance would have liked to have engaged the Japanese in a decisive sea battle, but feared that doing so would have compromised his ability to carry out his primary mission of seizing Saipan. His biggest concern was that Ozawa would divide his force–something Japanese commanders had done in the past–and one part would slip by the American fleet to attack the amphibious forces off the beachhead. Mitscher, the commander of TF 58, argued that Spruance's view did not adequately reflect the capability of carrier aviation. In Mitscher's opinion, the carriers could meet the Japanese hundreds of miles from Saipan while still retaining the capability of protecting the beachhead from attack.

On 17 June 1944 (D plus 2), with the concurrence of H.M. Smith, Spruance ordered Admiral Turner to send all of the amphibious ships not absolutely required to support the force ashore to depart the beachhead area and move east. Spruance then placed TF 58 between the beachhead and Ozawa's force to intercept the oncoming Japanese. Spruance who assumed tactical command of the force arrayed it with the fast battleships ahead of the carriers as an anti-aircraft screen. In addition to reducing the carriers freedom of action, Spruance's concept also

held them hostage to the prevailing wind from the east. Because the Japanese were advancing into the wind, they could launch and recover aircraft without slowing their forward movement. TF 58, on the other hand, had to reverse course and head away from the Japanese every time the Americans had to launch or recover aircraft.

Those restrictions might have had serious consequences for TF 58, but in this event they were outweighed by poor coordination by the Japanese whose aviators were hopelessly outclassed by their American opponents. The resulting action which is officially known as the Battle of the Philippine Sea and unofficially as the Marianas Turkey Shoot cost the Japanese Navy almost five hundred planes and marked the end of its carrier air arm as serious threat to the American fleet.

On the heels of the victory, Spruance allowed Mitscher to go after the Japanese carriers. The strike, which was launched at the extreme range of the American planes, sank one Japanese carrier and damaged two others, but forced many American air crews to ditch their aircraft when they ran out of fuel returning to their carriers. U.S. submarines sank two other carriers. What remained of Ozawa's force escaped, which resulted in a great deal of criticism directed at Spruance by the aviators. Admiral Towers demanded that Nimitz fire Spruance for mishandling the carriers, but Admiral King, who visited Saipan shortly after the battle, supported Spruance's decision.[11] The biggest impact of the failure to destroy Ozawa's carriers may have been the impression that the criticism of Spruance had on Admiral Halsey. Given a similar situation at Leyte Gulf, Halsey took a more aggressive approach with near disastrous results that seem to have validated the wisdom of Spruance's approach at Saipan.

At Saipan, Spruance also came under fire for a situation that was less of his own making than the one involving the escape of Ozawa' carriers. During the fighting ashore, the 27th Infantry Division, which had landed earlier than planned when the transports were moved away from the beachhead, was unable to maintain the speed of advance expected by the landing force commander, H.M. Smith. Smith, who had never changed the view he had formed of the division at Makin, relieved its commander, Ralph Smith. This action set off a firestorm of interservice animosity that was exacerbated when Spruance supported the Marine commander's decision. The so-called "Smith versus Smith" incident remained a controversial one that adversely affected Army-Marine Corps relations for the rest of the war.[12] Unfortunately, the reason naval leaders demanded speed of operations ashore is often overshadowed by other aspects of the controversy.

One of the few aviation related questions that remained to be answered after the Marianas was how to have Marine air units support Marine landings. In theory, *The Tentative Manual for Landing Operations* published by the Marine Corps in 1934 had the answer:

> Responsibility for air support, and for gaining control of the air within the zone of the proposed operation, rests initially with Naval Attack Force Aviation. Such units of the Landing Force as

can be made available, whether carrier loaded or operating from supporting land bases, will participate.[13]

The ideal arrangement involves the assignment of a carrier or carriers solely for the use of [Marine squadrons]; failing this, they might be assigned to the fleet carriers.[14]

Theory notwithstanding, several practical problems stood in the way of placing Marine squadrons on carriers in the central Pacific.

- Following Guadalcanal, Marine air units became tied to the SOPAC/SWPA campaign. Until Rabaul was effectively neutralized, this campaign required the full attention of Marine Air. Once the central Pacific amphibious drive started at Tarawa, however, Marines began to realize that the two halves of the Marine air ground team might be permanently separated unless Marine squadrons began operating from carriers.

- Most Marine aviators were not carrier qualified. Given the employment of Marine units in SOPAC, Admiral Towers considered that carrier qualification for Marines was unnecessary and wasteful. As a result, carrier qualifications were stopped after June 1943.[15] Before they could operate from carriers, a large number of Marines first had to undergo basic qualification.

- Marine fighter squadrons were flying the F4U Corsair, which was considered by the Navy at the time to be unsuitable for carrier operations. This assessment was based on unsatisfactory carrier trials in 1942. After numerous modifications to the F4U and successful carrier operations by the Royal Navy's Fleet Air Arm in European waters, the U.S. Navy certified the F4U for carrier operations in April 1944.[16]

With the active support of General A.A. Vandegrift, commandant of the Marine Corps, an agreement was eventually reached with the Navy to place Marine squadrons on board carriers, and training was started with that object in mind.

The concept envisioned two groups of six CVEs, four carriers in each group with Marine squadrons and two with Navy squadrons. The Navy units would carry out ASW missions and provide the CAP while the Marine squadrons conducted close air support for the landing force. Before this program could be completed, however, a crisis arose that essentially derailed the program.

The increasing threat posed to the fleet by the kamikazes convinced the Navy to increase the proportion of fighters in the air wings of the fast carriers. A shortage of fighter pilots existed, and it was found to be easier to use Marine fighter pilots than to transition Navy dive and torpedo bomber pilots to fighter duties. As a result, Marine fighter squadrons went on board the fleet carriers starting at the end of 1944. Some of these squadrons provided limited

support to the Iwo Jima and Okinawa landings, but the primary support continued to come from Navy squadrons on the CVEs.

Four CVEs with Marine squadrons reached the Pacific before the end of the war, but they never operated together in support of a U.S. landing as originally envisioned. Not everyone agreed that they should. Rear Adm. Calvin T. Durgin, who commanded the CVEs at Okinawa, noted that his Navy squadrons were also trained to provide close air support and stated:

> The advent of Marine Air Groups in CVE's should not be permitted to complicate the support carrier picture any more than is necessary....Marine Air Groups should be and probably are as flexible as Navy squadrons and groups, and should remain so, and should expect no preferential treatment. To assign all Marine squadrons to direct support work would probably work to the detriment of morale of the Navy groups and squadrons and this command sees at the present writing no reason for such assignments and has no intention of allowing it to occur.[17]

Admiral Durgin's views notwithstanding, eight "Marine" CVEs were planned for Operation OLYMPIC, the invasion of Kyushu, that never came to pass.

The CVE employment planned for Operation OLYMPIC was eventually used during the Korean war, albeit on a smaller scale. The landing at Inchon on 15 September 1950 was commanded by Vice Adm. Arthur D. Struble, commander of the U.S. Seventh Fleet, under the title of Commander Joint Task Force 7. The organizational model was a small-scale version of the fleet model from the central Pacific. Under his command Struble had both a fast carrier task force (TF 77) consisting of three U.S. CVs, the *Boxer* (CV-21), *Philippine Sea* (CV-47), and *Valley Forge* (CV-45), and a naval attack force (TF 90) that included two escort carriers, the *Sicily* (CVE-118) and the *Badoeng Strait* (CVE-116). The British light carrier HMS *Triumph* joined Struble's fleet after conducting a diversionary operation on the east coast of Korea.[18] Navy squadrons from the CVs isolated the objective area and provided a CAP for the Marine squadrons conducting close air support missions from the two CVEs. Unlike Spruance in the Pacific during World War II, Struble did not control land-based Air Force aircraft supporting the operation.

During World War II, commanders in the central Pacific demonstrated a remarkable ability to evaluate the problems encountered in an operation and then take steps to correct them before the next landing. This was particularly true with respect to issues involving the relationship between aircraft carriers and amphibious forces. Applying the five basic questions listed in section II to the fleet command model used in the central Pacific shows that:

- For the central Pacific landings, the fleet commander had control of all the assets needed to accomplish the mission including, amphibious forces, carrier aviation, and land-based air.

- With one possible exception, the amphibious mission was the primary concern of Admiral Spruance, the fleet commander charged with seizing the central Pacific islands. The possible exception involved the escape clause that existed in some of his orders that would have allowed a fleet engagement to take priority over protecting the amphibious forces during a landing. Although the orders for Saipan did not specifically include such an escape clause, Spruance's actions clearly illustrated his view that protecting the landing was his primary concern.

- Maintaining his flag on either a cruiser or battleship, Admiral Spruance placed himself in a position where he could influence either the landing or related fleet engagements.

- Whether Spruance had a staff fully capable of dealing with the complexities of both amphibious operations and carrier warfare is arguable. With respect to amphibious operations, Spruance relied largely on Admiral Turner and General H.M. Smith whose staffs were more than capable of dealing with the intricacies of opposed landings. The ability of these staffs was immeasurably improved by the introduction of the AGCs during the Marshalls operation. These floating command posts gave the commanders the planning space and communications equipment needed to control the most complicated of landings. Spruance was more open to criticism with respect to carrier operations because he was not an aviator, had little aviation expertise on his staff, and on occasion–the Philippine Sea action, for example–took personal tactical command of carrier operations.

- Along with other aspects of amphibious warfare, command and control of aircraft supporting the landings developed continuously during the war. The concept remained that the CATF should control all aircraft in the vicinity of the objective area, and equipment and organizations were developed to support the concept. Important developments included the use of CVEs to support the landings, creation of Joint Assault Signals Companies (JASCO) with forward air control teams that gave both Army and Marine Corps commanders the ability to direct close air support missions from the front lines, coordination procedures that allowed aircraft and naval gunfire to attack targets simultaneously, and refinement of the system by which a CATF controlled all aircraft in the objective area from specially designed control spaces located in the AGCs.

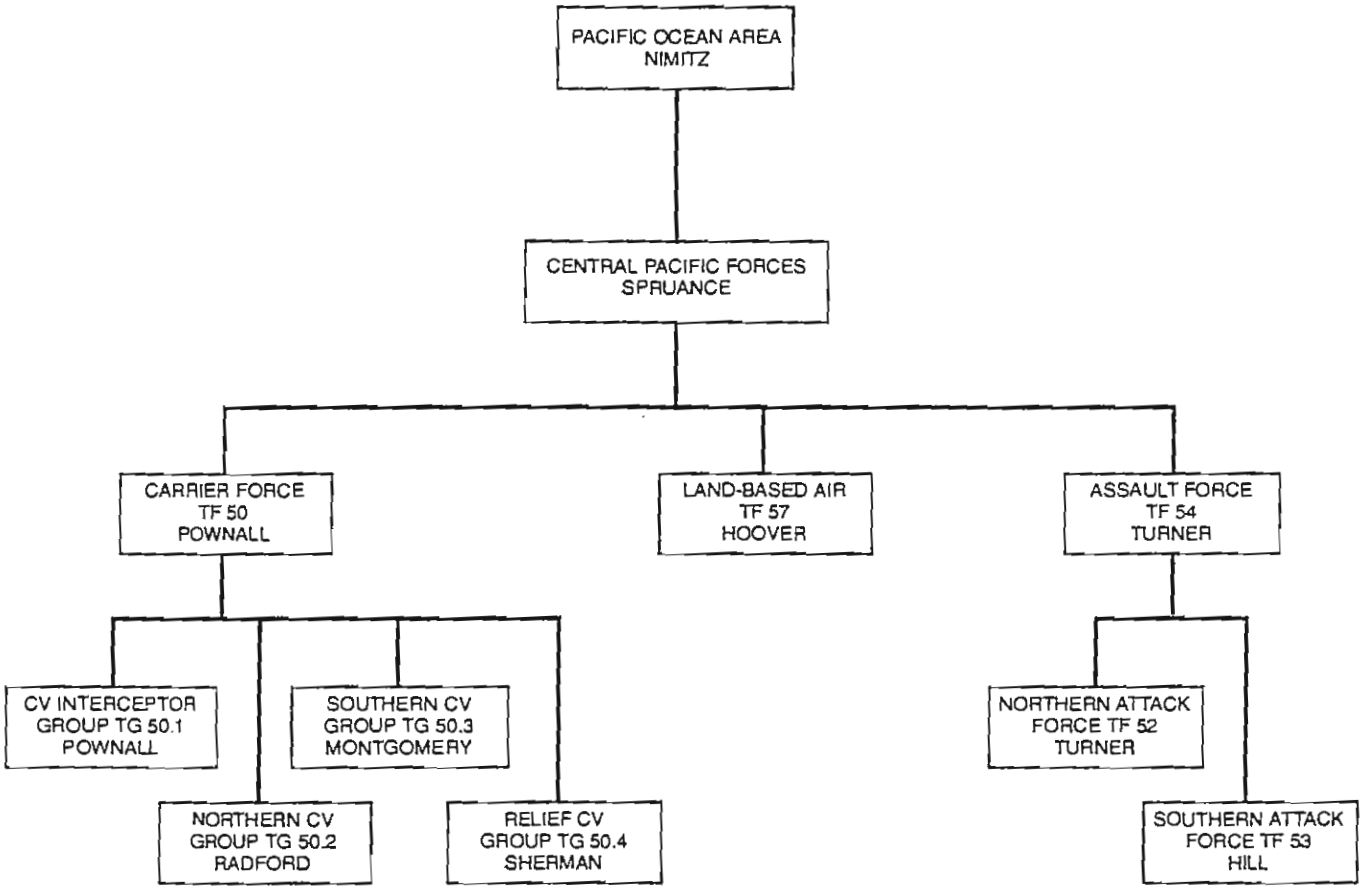
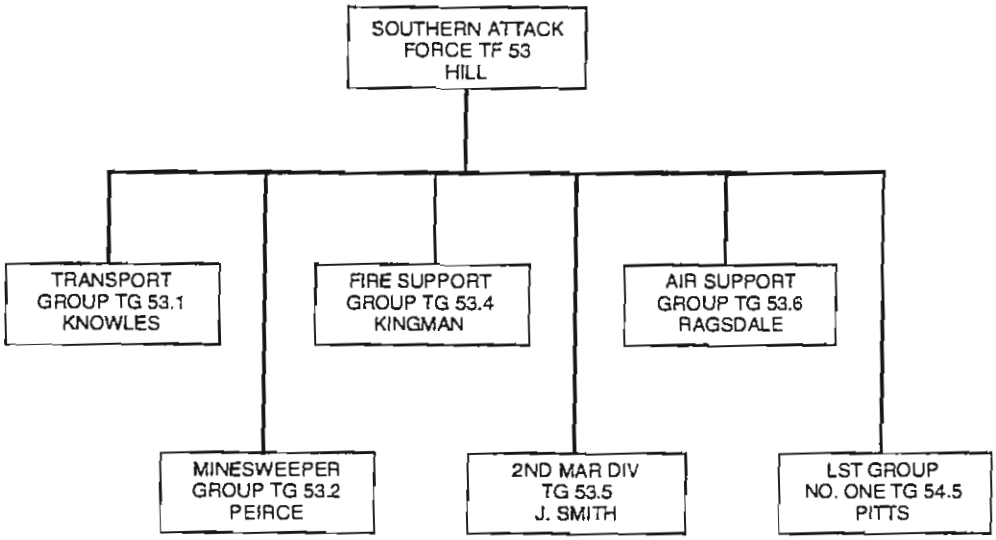


FIG. 6

PACIFIC OCEAN AREA
GILBERTS



AIR SUPPORT GROUP INCLUDED CVEs SANGAMON, SUWANNEE, CHENANGO, AND BARNES

FIG. 7

TF 53
TARAWA

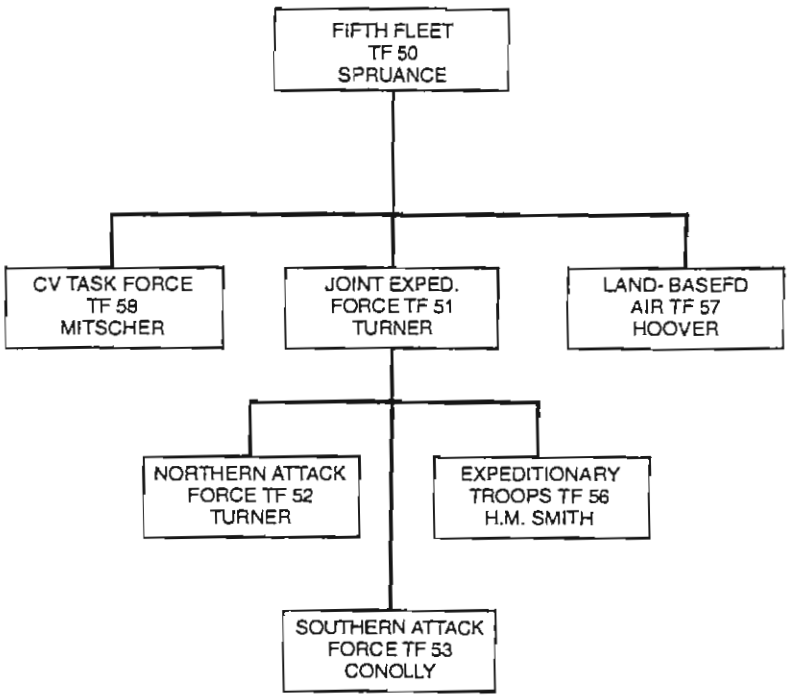


FIG. 8

FIFTH FLEET
MARIANAS

SECTION V

THE COMPONENT COMMAND MODEL

During World War II, amphibious warfare in the European theater developed along significantly different lines from those of the Pacific theaters. One of the major reasons for the difference was the continental nature of the war in Europe as a opposed to the naval character of the Pacific war. The objectives of most of the Pacific landings were islands that could be isolated by naval forces and then bombarded by air strikes and naval gunfire to prepare for the amphibious assault itself. Although counter-attack by the Japanese Combined Fleet remained possible for most of the war, reinforcement of the ground defense forces was usually not possible. When weighing the need for thoroughly preparing the objective against the hope of achieving surprise, Pacific commanders usually opted for preparation.

Allied commanders in Europe faced a very different situation when planning amphibious operations. Instead of seizing islands for use as advanced air and naval bases, they were conducting invasions for the purpose of starting major land campaigns. The enemy's forces included large numbers of armored and mechanized divisions that, given warning as to the location of a possible landing, could move to the landing site in time to oppose the landing. This salient fact caused Allied commanders to use pre-H-hour supporting arms sparingly in hopes of concealing the location of a landing long enough to prevent the Germans from reacting before a beachhead could be established.

This approach reduced the need for the type of air strikes carried out by carrier aircraft in the Pacific and also reflected the tactical concepts of both the U.S. and Royal Air Forces. Neither of those services accorded close air support of ground troops the same importance that Navy and Marine aviators did in the Pacific. The focus for tactical air forces in Europe was air superiority and interdiction. The European planners also had to rely largely on land-based aircraft to support amphibious operations. Operation TORCH, the North African invasion of 1942, involved air support from both land bases and British and American carriers. Operation HUSKY, the June 1943 invasion of Sicily, was support entirely by land-based planes, although British carriers formed part of a naval force that protected the operation against intervention by the Italian fleet. For the invasion of mainland Italy, carriers were available, but the choice of Salerno as the site of the landing was based on the maximum combat radius of Allied fighters from bases in Sicily.

British influence was the second factor that resulted in a distinctly European style of amphibious warfare. Part of this influence was derived from views the British had formed about amphibious operations during World War I. Operations at Gallipoli, for example, had convinced them that night landings under conditions of great secrecy were more likely to succeed

and less likely to produce high casualties that daylight landings. Admiral of the Fleet Roger Keyes, an early director of combined operations in World War II, who had been chief of staff to the British naval commander at Gallipoli, noted in 1943:

> Among the most valuable lessons we learnt from the original landings [at Gallipoli] was the folly of attempting to storm a defended beach in daylight. All our amphibious operations after this, whether attacking or evacuating, were carried out with as many hours of darkness in hand as was possible, and also, having regard to the vital importance of surprise, doing nothing to disclose our intentions before dark.[1]

A second aspect of the British influence on amphibious operations in Europe was their concept of the principles of war. The American armed forces accepted, at least in theory, the principle of unity of command. The British, on the other hand, rejected that concept in favor of the principle of cooperation. The United States military did not dismiss the importance of cooperation, but regarded it as an inferior principle on which to base organization for combat. U.S Army *Field Service Regulations* for 1939, for example, stated:

> Unity of effort is necessary to apply effectively the full combat power of the available forces. It is obtained through unity of command. Where this is impracticable, dependence must be placed upon cooperation.[2]

The trade offs of alliance politics apparently made unity of command in Europe impracticable at any level below that of the theater commander. As a result, European amphibious operations were organized on a component command model based on the principle of cooperation.

In the past, the British had successfully conducted landings based on cooperation between the ground and naval commanders. World War II, however, saw the command picture further complicated by the addition of an air component commander.

The U.S. Army, Navy, and Marine Corps all began World War II with the concept that aircraft represented a supporting arm of naval or ground forces. In the central Pacific, where naval officers were in command, aircraft were retained in a supporting role. In North Africa, however, where the U.S. Air Force operated closely with the Royal Air Force (RAF), U.S. Air Force leaders saw what they considered to be the advantages of employing airpower as a separate arm. To further that aim, the War Department issued a field manual in July 1943 that the U.S. Air Force regards as its "declaration of independence." The manual stated clearly:

> Land power and air power are co-equal and interdependent forces; neither is an auxiliary of the other.... Therefore, the command of air and ground forces in a theater of operations will be vested in the superior commander charged with the actual conduct of operations in the theater, who will exercise command of air forces through the air force commander and command of ground forces through the ground force commander.[3]

Naval forces are not mentioned because the War Department had no authority to do so. A look at the organization for Operation AVALANCHE, the landing at Salerno in September 1943, shows the influence of both the British concept of cooperation and the new idea of the air force as a separate arm equal to those of the navy and army. As is frequently the case, an organizational diagram such as figure 9 can not fully convey the complexity of command relationships. Several points are worth noting.

- Operation AVALANCHE was a joint, combined operation with British and U.S. commanders having command of forces from both nations. In keeping with the principle of cooperation no overall commander for the operation existed short of General Dwight Eisenhower, Supreme Allied Commander for the Mediterranean theater. Orders instead designated separate ground, naval, and air commanders for the operation.[4]

- The Allied naval commander was Vice Adm. H. Kent Hewitt, USN, who was commander of the U.S. Eighth Fleet. For AVALANCHE his Allied title was commander of the Western Naval Task Force (TF 80). Hewitt's command included a support carrier force (TF 88) commanded by Rear Adm. Sir P.L. Vian, RN. Known to the British as Force "V," TF 88 included a light carrier, HMS *Unicorn*, and four Royal Navy CVEs. In support of Admiral Hewitt's task force, but not under its command, was the Royal Navy's Force "H." This force was a small fleet that included two large carriers, HMS *Illustrious* and HMS *Formidable*.

- The Allied ground commander was Lt. Gen. Mark W. Clark, USA, commander of the U.S. Fifth Army. Uncomfortable with the cooperative command arrangement, Clark subordinated himself to Admiral Hewitt for the amphibious assault in keeping with U.S. amphibious doctrine. Clark explained his reasoning as follows:

I accepted Hewitt as being in command until we had landed and established a toehold on the beaches. Until that time, Hewitt would have to depend on cooperation with [Air Chief Marshal Sir Arthur] Tedder for air cover; after we landed I would have to do the same in order to get air support for ground operations. Such a system, it seemed to me, could lead to grave difficulties.... For our purposes in an operation such as Salerno, the Navy commander should be in control of air support and everything else during the period required to get the assault forces to their destination and established with a firm toehold ashore.[5]

In practical terms, therefore, the relationship between the nava and ground commanders at Salerno was similar to that used in the central Pacific under the fleet command model. Relationships with the air commander, however, were a different matter.

- Unlike their army counterparts, air force leaders insisted on an independent chain of command that ran from the Mediterranean Air Command (Tedder) through the Northwest African Air Forces (NAAF) and the Northwest African Tactical Air Force (NATAF) to the U.S. XII Air Support Command (ASC). Maj. Gen. Edwin J. House USAAF, the commander of the XII ASC, was located with Hewitt and Clark on board Hewitt's flagship, the USS *Ancon* (AGC-4). This proximity facilitated cooperation between the commanders, but if cooperation failed, their only common superior was General Eisenhower himself. In the SWPA, General MacArthur solved a similar problem by placing himself at the scene of his landings. For Salerno, Eisenhower remained at a headquarters in North Africa.

The combination of a cooperative approach to organization and a separate air chain of command resulted in a complicated air control system that in Admiral Hewitt's view had the "defect" of denying control of supporting air to the commander most responsible for the success of the operation, the CATF.[6] At least five distinct air organizations provided support for Operation AVALANCHE:

- The Northwest Africa Strategic Air Force (NASAF) provided bombers to neutralize Italian airfields before D-day, and struck other tactical targets during the battle. The NASAF also shifted operational control of three groups of long-range P-38 fighters to the XII ASC to provide cover over the beachhead during the landings.

- The Northwest Africa Coastal Air Force (NACAF) provided air cover over the invasion convoys until darkness on D minus 1, after which the Northwest Africa Tactical Air Force assumed responsibility. The NACAF also provided night fighters over the beachhead during the operation.

- The Northwest Africa Tactical Air Force (NATAF) had the main responsibility for land-based air support of the opera-tion which it exercised through the XII ASC. Two other subordinate commands of the NATAF also participated in Operation AVALANCHE. Fighters from the Desert Air Force (DAF) provided air cover for convoys moving along the east coast of Sicily, and the Northwest Africa Tactical Bomber Force (NATBF) flew missions in support of the landing.

- The two carriers from Force "H" which operated seaward of the Gulf of Salerno provided a CAP for the five carriers of Force "V" in addition to protecting their own force.

- Carriers from Force "V" provided fighter cover over the beachhead beginning at 0800 on D-day.

Admiral Hewitt exercised no direct control over the first four of the above forces. He had operational control of Force "V," but his degree of control over the aircraft from its carriers is difficult to determine. The applicable orders are somewhat vague, but imply that Hewitt had operational control of the carrier aircraft from Force "V." Hewitt also implies that he had operational control of these aircraft in his *Naval Institute Proceedings* account of the operation.[7] The official British history, on the other hand, states that General House had operational control of all aircraft over the beaches including those from Force "V."[8] Two other specialized air units at Salerno are also worth noting.

- During the Sicily landings, Admiral Hewitt had noticed that the slow SOC spotting aircraft from U.S. naval gunfire ships were particularly vulnerable to attack by Luftwaffe fighters. He solved the problem for Salerno by convincing the Air Force to train a selected group of P-51 pilots to adjust naval gunfire. Flying in pairs over the beachhead, one pilot would do the spotting while his wing man flew cover for him. During the landing, naval gunfire was critical in repulsing German counterattacks, and Admiral Hewitt rated the P-51 spotting as a "great success."[9]

- The army also had a need to introduce its light artillery spotting aircraft into the battle as soon as possible. For Sicily, the U.S. Navy converted LST-386 into a miniature aircraft carrier by adding a 216-ft. flight deck that could be used to launch the small planes, but not recover them. This ship was used again at Salerno where it launched the spotting planes as soon as the landing force captured ground that could serve as a rough airfield. In the Pacific, CVEs were used to carry light aircraft, and at Iwo Jima, LST-776 was equipped with a clothesline-like apparatus called Brodie gear that could both launch and recover specially rigged aircraft.

To control this disparate mix of aircraft, Hewitt designed a two-part air control system. Fighter direction for all land-based aircraft was conducted by a special team under General House from Admiral Hewitt's flagship, the *Ancon*. The *Ancon* served as a troop transport during the North African landings, but was converted to the U.S. Navy's first AGC after the navy observed the performance of the Royal Navy's headquarters ship HMS *Bulolo* during those landings. Fighter direction for carrier aircraft was carried out from a special landing ship, fighter direction (LFS), HMS *Ulster Queen*. Admiral Hewitt's operation order for Salerno noted, however, "Should divided fighter direction prove unsatisfactory, USS ANCON will be ordered to assume direction of all fighters."[10] Air control problems were eased somewhat by separating the land- and carrier-based planes geographically. Carrier planes flew generally in the northern half of the objective area; land-based planes in the southern half, which was closer to their bases.

The split naval command of Forces "H" and "V" created a situation somewhat analogous to the one that later would be faced by Admiral Kinkaid at Leyte Gulf. Hewitt, like Kinkaid, was responsible for the invasion, but had no control over the fleet protecting the amphibious

forces from attack by an enemy fleet. At Leyte, that role went to Halsey, whose orders allowed him to pursue Ozawa's fleet even though doing so left Kinkaid's invasion force uncovered. At Salerno, Admiral Cunningham, who commanded both Hewitt's invasion force and the covering Force "H," took a different approach. His orders to force "H" stated:

> The object of Force "H" is to cover the assault against interference by enemy forces. This cover is to include the provision of fighter cover over Force "V" while that force is present in the assault area.
>
> Should the enemy battlefleet put to sea, Force "H" is not to be drawn off in pursuit to the prejudice of the object stated [above] without a definite direction from the Commander-in-Chief, Mediterranean.[11]

The threat anticipated by Admiral Cunningham never materialized. Italy surrendered the day before the Salerno landing, and most of the Italian fleet turned itself over to the Allies. The Germans, however, conducted a determined defense ashore that put the issue in doubt for a while. On D-day, resistance by the Luftwaffe was limited to hit and run attacks. As naval gunfire began to have a telling effect on the German defenders, the Luftwaffe unleashed a new weapon, the guided bomb. Having sunk the Italian battleship *Roma* with one of these weapons as she was on her way to surrender to the British, the Germans began to employ them against the invasion fleet. Damage to the cruisers USS *Savannah* and HMS *Uganda* and the battleship HMS *Warspite* that put those ships out of action emphasized the need for air defense over the invasion beaches.

When Operation AVALANCHE was planned, carrier support for the landing was expected to last for only a day or two. The army was expected to capture a major airfield shortly after D-day which would allow fighters from the NATAF to begin operating from the objective area. Stiff German defense through the Allied timetable off, however, and by 11 September (D plus 2) the CVEs of Force "V" began to run short of fuel. On that same day, army engineers completed an emergency strip just behind the beaches near Paestrum. The following morning, Seafire fighters from the carriers began to operate from the new strip, which allowed the carriers to depart the area to refuel. The Seafires were eventually replaced by land-based fighters which allowed the seafires to return to their carriers via airfields on Sicily.

A review of the five questions from section II shows:

- No one short of General Eisenhower, the theater commander, controlled all the assets needed to accomplish the mission of invading Salerno. Admiral Hewitt agreed completely with General Clark that the lack of unity of command imposed by the component command model was unsatisfactory. In Hewitt's words:

I am a strong believer in unity of command, particularly in tactical operations. Tactical unity of command implies that a tactical commander should have under his own control all the available instruments necessary to the successful accomplishment of his mission.[12]

Hewitt did not have control of all those instruments at Salerno. The operation eventually succeeded, but divided command remained a concern during much of the battle.

- Accomplishment of the mission at Salerno was probably Eisenhower's primary concern at the time. As theater commander, however, he obviously had many other responsibilities that demanded his attention. High among those were the various political-military issues surrounding the surrender of Italy.

- During the operation, Eisenhower remained in North Africa, far from the scene of the action and at the end of three separate, circuitous chains of command. From his distant headquarters, Eisenhower could exercise no real personal influence on the battle. Communications with the battlefield commanders through the intermediate levels of command was time consuming, a problem that bothered both Admiral Hewitt and General Clark. Divided command by cooperation emphasized the need for close contact between the ground, naval, and air commanders on the scene. Availability of an AGC at Salerno facilitated the required coordination between commanders.

Given their background of conducting amphibious operations by cooperation, it is not surprising that the British chose that approach in 1956 when they planned the combined Anglo-French assault on Suez. For that attack (Operation MUSKETEER), British General Sir Charles Keightley commanded a combined organization in which Allied air, ground, and naval forces were controlled through three separate chains of command. Although Operation MUSKETEER was much smaller than the Allied Mediterranean landings of World War II, several comparisons are worth consideration:

- At Salerno, the theater commander was American, the three component commanders British, and the three on-scene com-manders American. For Suez, all the major commanders were British with French deputies who also commanded the French air, ground, and naval components.

- At Suez, the naval task force commander, Vice Adm. D.F. Durnford Slater, commanded both a carrier force under Vice Adm. M.L. Power and an assault force under Rear Adm. D. Holland Martin.

- In addition to one British fleet carrier and two British and two French light carriers, Admiral Power had a new type of carrier to deal with. The Royal Navy had converted two light carriers, HMS *Ocean* and HMS *Thesus* to troop transports. For Suez, the carriers embarked a mix of navy, army, and RAF helicopters and troops from 45 Commando, Royal Marines. Although the U.S. Marine Corps had begun experimenting with helicopter assaults in 1948, the British conducted the first actual combat helicopterborne amphibious assault at Suez.

- Although available sources are vague, the carrier force commander appears to have controlled helicopter operations instead of the assault force commander.

- Planning for Suez raised the recurring issue of the relative capabilities of land-based and carrier aircraft. Allied carrier aircraft were a mix of jet and propeller types, none of which could match the Egyptian MiG-15s for performance. The Allies solved the problem by conducting surprise strikes on Egyptian airfields that largely destroyed the Egyptian Air Force on the ground.

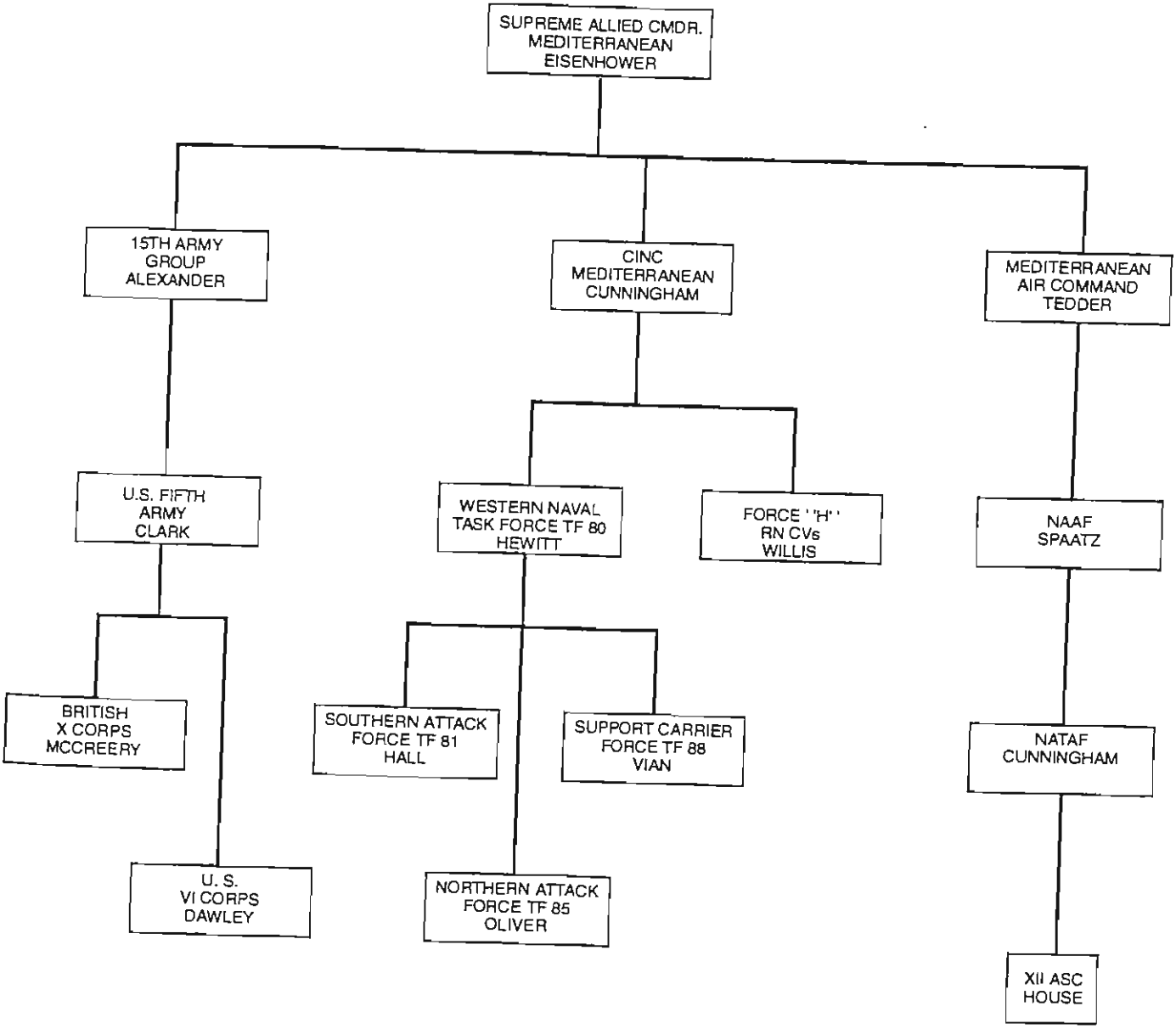


FIG. 9

MEDITERRANEAN THEATER
SALERNO

SECTION VI

CONCLUSIONS AND RECOMMENDATIONS

The four organizational models that have been described in this paper are all adaptable to amphibious operations today under current U.S. joint doctrine. Figures 10-13 illustrate how the four models might appear today. The diagrams represent organization during the amphibious phase of an operation. Marine Corps landing forces are shown to be under the operational control of a CATF at that time. Historically, each model has demonstrated strengths and weaknesses that can perhaps be validated under current conditions through wargaming. Those strengths and weaknesses include:

EXPEDITIONARY FORCE MODEL

Advantages	Disadvantages
Easily tailored to a specific mission.	JTF staffs, even standing ones, tend to have little experience working together until actually called together for operations.
Fits in well with current concepts of joint operations in which most CINCs have standing JTFs for contingencies.	Service considerations may preclude assigning a JTF all the assets needed to accomplish the mission.
Increases probability that amphib mission will be the primary concern of the commander with assets needed to achieve the mission.	

INTER-THEATER MODEL

Advantages	Disadvantages
May solve interservice problems where Navy is reluctant to give opcon of aircraft carriers to a theater CINC without experience in controlling carriers.	Ensures that commander responsible for the amphibious operation will not also control the supporting aircraft commanders.
	Increases probability that amphibious and carrier commanders will have different operational priorities.

FLEET COMMAND MODEL

Advantages	Disadvantages
Increases probability that commander responsible for the amphibious operation will control all of the assets needed to accomplish the mission.	Not in keeping with current joint view that all services should participate when possible. May meet resistance from Army and Air Force.
Increases probability that the commander's staff will have worked together on a regular basis before the operation.	
Simplest organization of the four models because of its largely naval structure.	

COMPONENT COMMAND MODEL

Advantages	Disadvantages
Parallels current joint organizational model used for operations other than amphibious ones.	Increases probability of disagreements between air, ground, and naval commanders at the most critical time in a landing.
Increases probability of Air Force support because of separate air chain of command.	Requires longest time to resolve disputes between component commanders when they occur.
May be favored for combined amphibious operations by allies who prefer to operate by cooperation rather than unity of command.	

Relative advantages and disadvantages notwithstanding, all of the above models have been used successfully in actual amphibious operations. That leads to the conclusion that other factors are equally–or perhaps more–important in determining the success or failure of a landing.

Other factors may also explain why two obvious organizational models (making the large carriers subordinate to the amphibious task force or vice versa) have not been used in the past for major operations.

Commanding the carriers and the amphibious task force are both jobs that require specific talents that might not apply to the other position. More importantly, however, each position requires a specific focus that is not necessarily compatible with that of the other. In that case, a common superior who is responsible for the overall operation and located where he can influence the action personally is highly desirable.

The major variable in this respect is the focus of the carrier force commander because CATFs have almost invariably focused on successfully conducting the landing at hand regardless of cost. Admiral Hewitt's operations orders, for example, typically contained a statement such as, "The assault is to be pressed home with relentless vigor regardless of loss or difficulty."[1]

Carrier commanders supporting amphibious operations, on the other hand, have been less consistent, focusing primarily on one or more of the following:

- Direct support of the landing.
- Offensive employment of the carriers.
- Safety of the carriers.

Historically, the deciding factor in determining what focus a particular commander has taken does not appear to be whether the carrier commander was an aviator. The overriding focus of Admiral Fletcher, who was not an aviator, at Guadalcanal was the safety of his carriers. Early in his tour as COMSOPAC, Admiral Halsey, an aviator, was also reluctant to expose his carriers to land-based Japanese air albeit not as reluctant as Fletcher had been. At Leyte Gulf, on the other hand, Halsey's desire to employ his carriers offensively at the expense of supporting the landing nearly led to disaster. During the battle of the Philippine Sea, Admiral Spruance placed protecting the landing at Saipan ahead of using the carriers offensively, and was criticized loudly by the aviators for having done so. The Royal Navy has been less averse to placing non-aviators in command of carriers than the U.S. Navy. Rear Adm. Philip Vian, a Royal Navy officer with a destroyer-cruiser background, successfully commanded the support carrier force at Salerno, for example. After commanding one of the British task forces at Normandy, he then went to the Pacific where he commanded a carrier group of four Royal Navy CVs in the closing sea battles off Okinawa and Japan.

The variable of whether the carrier force commander is an aviator or not would be a useful one to introduce into a wargame exploring the relationships between carriers and amphibious forces if a way can be developed to do so.

Other variables that would be worth exploring in such a game include:

- The relative capabilities of land-based and carrier aircraft. This seems to be a cyclical matter. At the start of World War II, for example, carrier aircraft were generally inferior to their land-based counterparts. By the end of the war, the situation had been reversed. By the start of the Korean War, land-based fighters had again gained ascendancy over the earliest carrier jets. When in this cycle a landing takes place may somehow influence the best choice of command model.

- The interchangeability of Navy and Marine squadrons for employment on carriers. During World War II, the Marine Corps attempted to embark Marine squadrons on carriers in order to provide CAS for Marine landing forces during amphibious operations. Various approaches to providing CAS including Navy squadrons on carriers, Marine squadrons on carriers, and Harriers on amphibious ships should be explored.

- The ability of carrier aircraft to move ashore and operate from expeditionary fields. When the situation dictated during World War II, as it did at Guadalcanal and Salerno, carrier aircraft were able to fly ashore and operate from expeditionary airfields. Is that capability still available today? If not, should it be?

- Location of the operational commander during an amphibious operation. If the commander is at the scene of the landing, a related question concerns what type of ship should be chosen as a flagship.

- Need for speed in the conduct of amphibious operations. Is speed as vital today as it was during World War II? If so, does the requirement favor one or more of the organizational models?

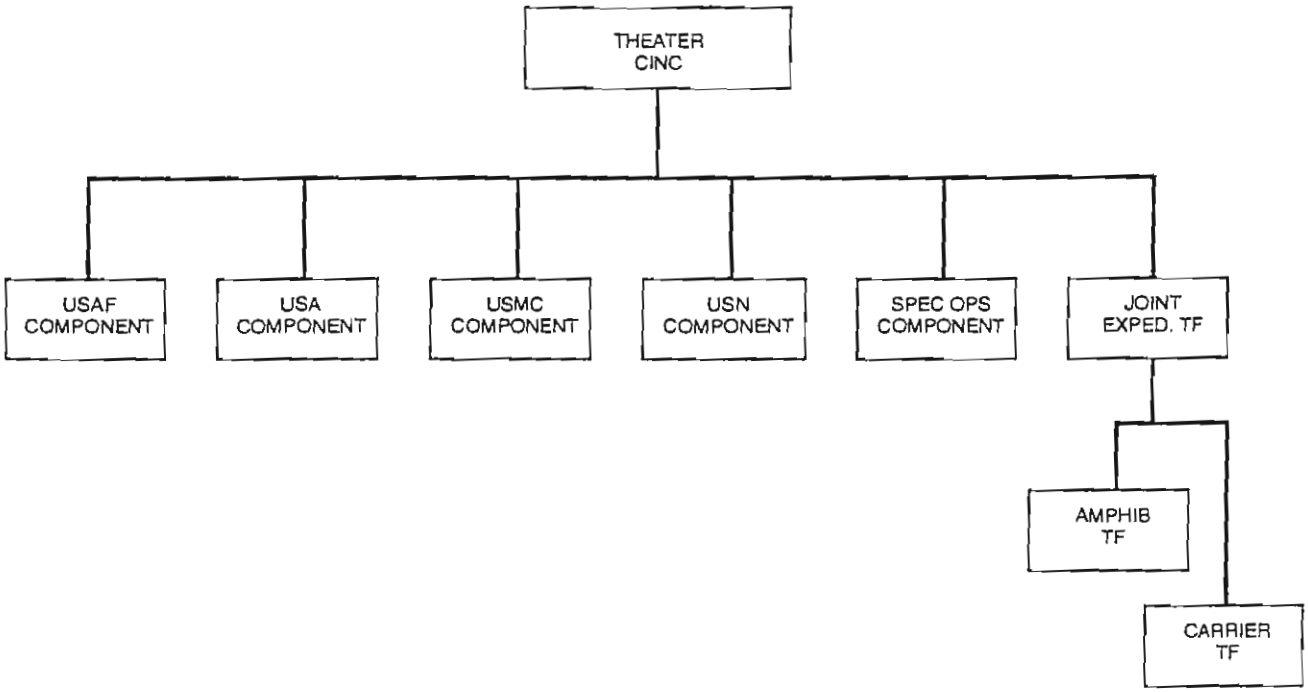


FIG. 10

EXPEDITIONARY FORCE MODEL

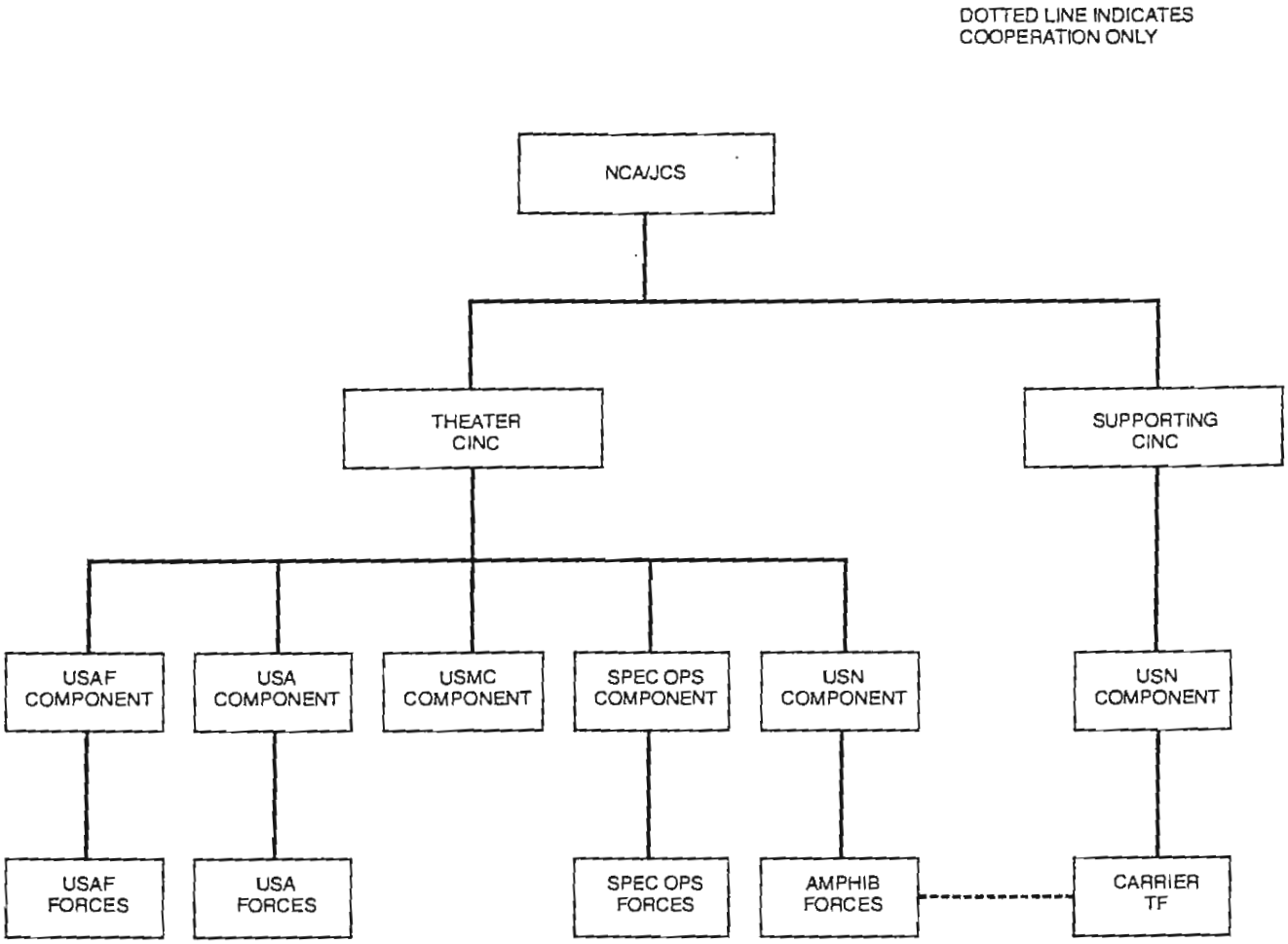


FIG. 11

INTER-THEATER MODEL

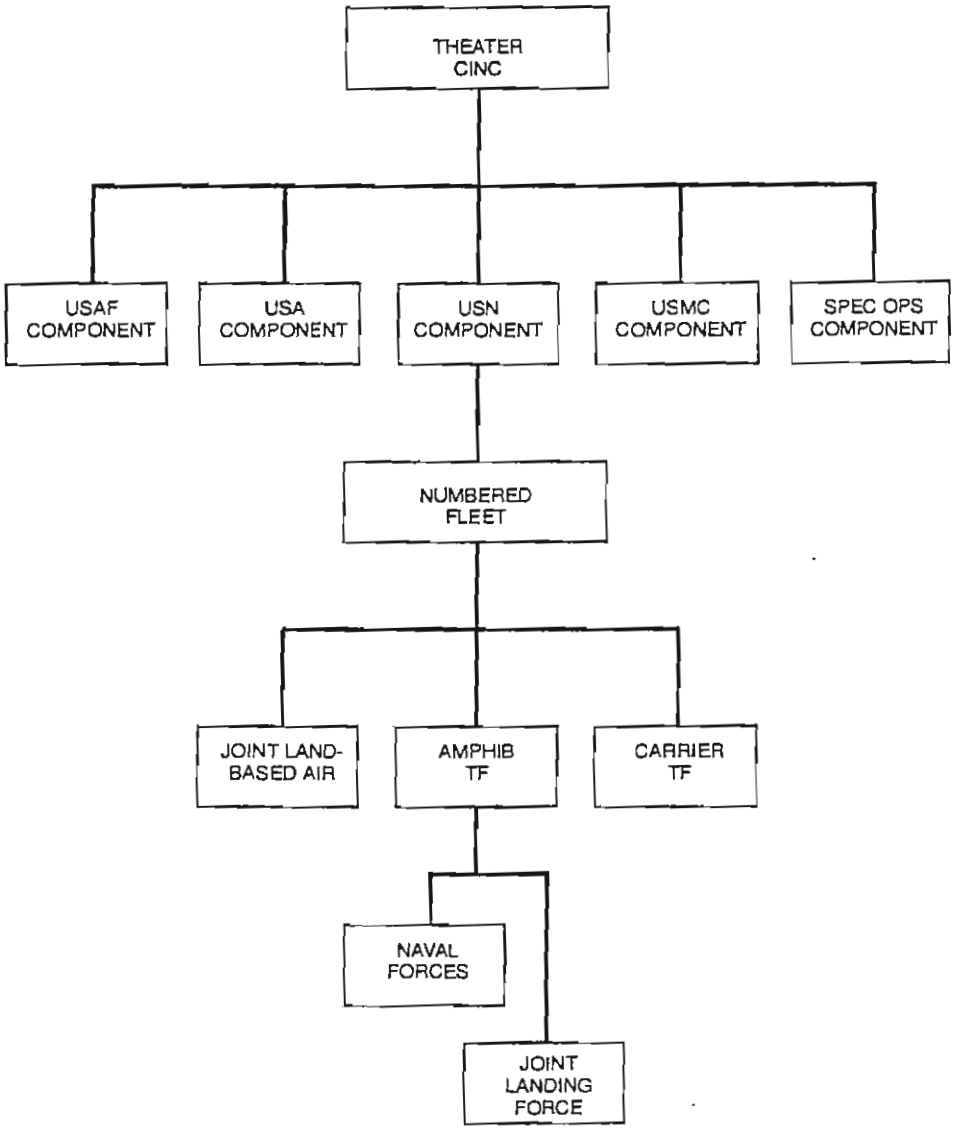
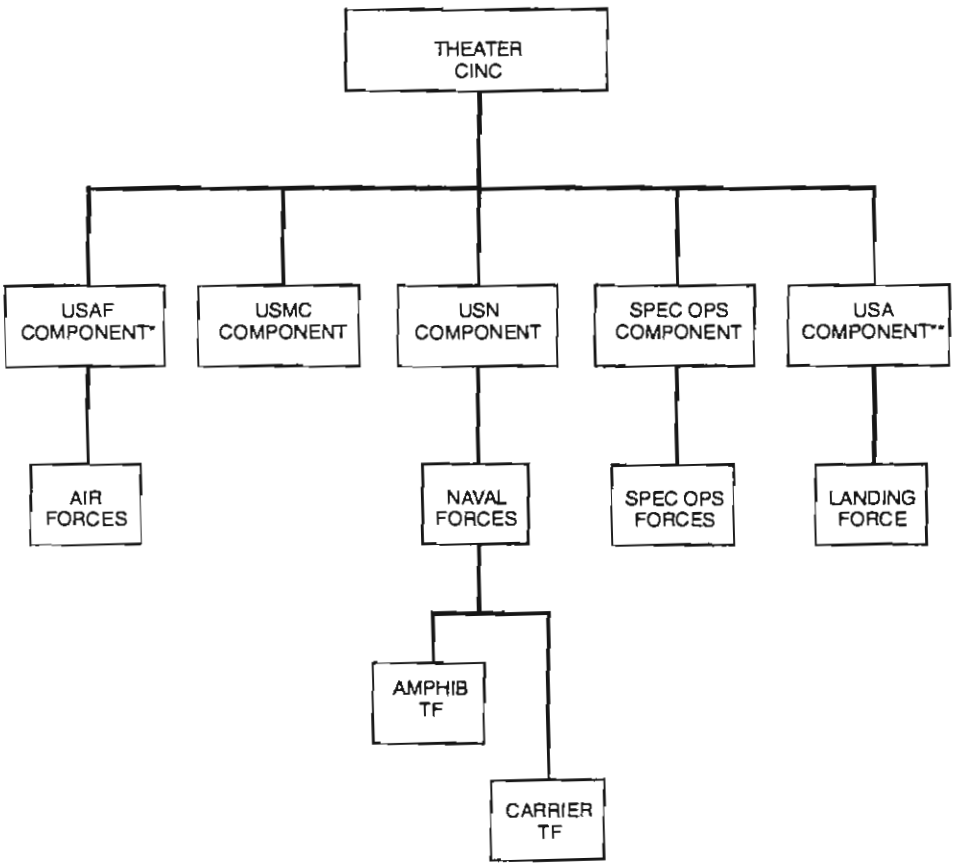


FIG. 12

FLEET COMMAND MODEL



*ASSUMING USAF PROVIDES PREPONDERANCE OF AIR ASSETS

**ASSUMING USA PROVIDES PREPONDERANCE OF GROUND ASSETS

FIG. 13

COMPONENT MODEL

ENDNOTES FOR SECTION II

1. Hayes, The History of the Joint Chiefs of Staff: The War Against Japan, 103.

2. Dyer, Amphibians Came to Conquer, Vol. 1, 219.

3. Ibid., 259-260.

4. U.S. Pacific Fleet letter A16-3/(17), Serial 0151W of 9 July 1942. Naval War College Microfilm file 346, reel 16.

5. JCS 00581 of 2 July 1942, quoted in Dyer, Amphibians Came to Conquer, Vol. 1, 219.

6. Dyer, Amphibians Came to Conquer. Vol. 1, 294.

7. COMSOPAC msg 081012 July 1942, quoted in Dyer, Amphibians Came to Conquer, Vol. 1, 383.

8. Change 1 to Landing Operations Doctrine, United States Navy, 1938, 151.

9. Vandegrift, Once a Marine, 120.

10. Quoted in Dyer, Amphibians Came to Conquer. Vol. 1, 384.

11. Bates, Savo Island, 39.

12. Dyer, Amphibians Came to Conquer, Vol. 1, 283-284.

13. For a detailed account of air operations during Operation WATCHTOWER, see Lundstrom, The First Team and the Guadalcanal Campaign.

14. Morison, The Struggle for Guadalcanal, 28.

15. Dyer, Amphibians Came to Conquer, Vol. 1, 401.

16. Bates, Savo Island, 18.

17. Commander in Chief U.S. Fleet, Battle Experience, Solomon Islands, 10-6.

18. For a concise account of command and control during the seizure of Grenada (Operation URGENT FURY), see, Metcalf, "Decision Making and the Grenada Rescue Operation."