

The Mayaguez Operation

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Urey W. Patrick

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THE MAYAGUEZ OPERATION (U)

CENTER FOR NAVAL ANALYSES

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April 1977

Prepared for:

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Encl: Subject Study

1. The enclosure is the final report of a study of the events surrounding the recovery of the S. S. MAYAGUEZ and her crew in May 1975. The study was conducted by the Marine Corps Operations Analysis Group of the Center for Naval Analyses in response to a request by the Commanding General, Fleet Marine Force, Pacific.

- 2. The objectives of the study were as follows:
- a. To document, and reconstruct where necessary, the U. S. military operations related to the recovery of the S. S. MAYAGUEZ and her crew; and
- b. To analyze the military aspects of the operation for future application.
- 3. The objectives of the study have been met and it is approved for distribution.
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SECTION I

INTRODUCTION

The S. S. Mayaguez, a U.S. containership, was fired on, boarded, and seized by Cambodians on 12 May 1975. The seizure took place in the Gulf of Thailand near Poulo Wai Island, shown in figure I-1. Before her transmitter went dead (reference 1), the Mayaguez reported that she was following a gunboat toward the Cambodian port of Kompong Som. On 13 May, she anchored about a mile northeast of Koh Tang and remained there until 15 May 1975, when a U.S. Marine boarding party recaptured her. Also on 15 May, a Marine force assaulted Koh Tang to seize the island and search for the Mayaguez crew.

PURPOSE

This study was conducted by the Marine Corps Operations Analysis Group (MCOAG) of the Center for Naval Analyses at the request, and under the sponsorship, of the Commanding General, Fleet Marine Force, Pacific. Its purpose is to:

- Document the U.S. military operations related to recovery of the Mayaguez and her crew.
- Analyze the military operations for future application.

SCOPE

The study examines the U.S. Marine Corps/Navy response to the Mayaguez crisis, the recovery of the Mayaguez and her crew, and the assault on Koh Tang. U.S. Air Force aircraft supported the assault on Koh Tang and the boarding of the Mayaguez; therefore, their combat operations are included. The study covers 12 May through 15 May 1975, but includes some background information relating to the Seventh Fleet amphibious force posture, which resulted from events that occurred before 12 May. A chronology of events that relate to the Mayaguez operation is contained in appendix A.

This study used the following data sources to make a detailed reconstruction of the events relating to the Mayaguez operation:

- Message files at Fleet Marine Force, Pacific (FMFPac) and Headquarters Marine Corps (HQMC).
- After-Action Reports.
- Personal interviews with participants.
- Taped recordings of interviews with participants.



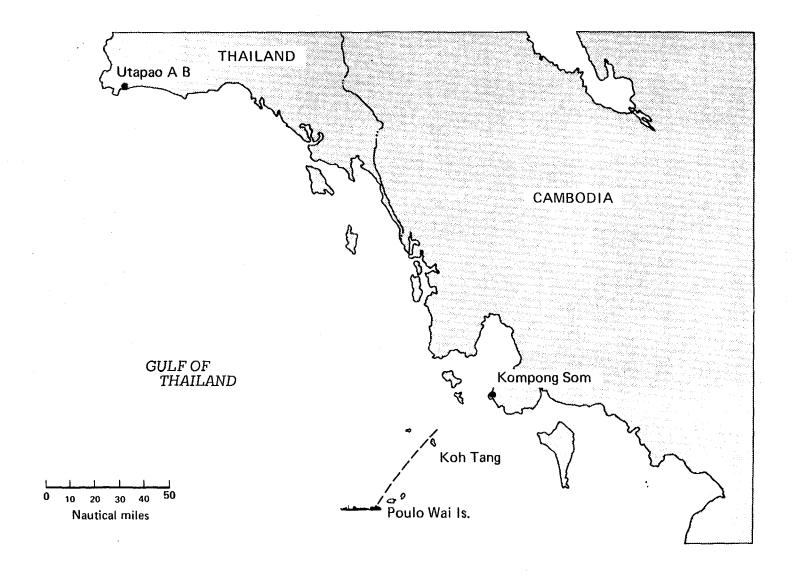


FIG. I-1: SEIZURE OF THE MAYAGUEZ

- Notes made at FMFPac and HQMC of the "real time" reporting (and tapes of the real time reporting) by the U.S. Joint Command in Thailand to the Commander-in-Chief, Pacific (CinCPac) and Joint Chiefs of Staff (JCS).
- Pilot OpRep-4 Message Reports.

Following the reconstruction of the events, these phases of the operation were analyzed:

- Response,
- Planning,
- Command and Control,
- Communications,
- Helicopter vulnerability, and
- Amphibious assault doctrine.

GENERAL ACCOUNTING OFFICE STUDY

The General Accounting Office (GAO) conducted a study (reference 2) of the Mayaguez operation "to determine how this crisis was handled and to identify lessons which would be of value in the handling of future crises, recognizing that every crisis has its unique characteristics." While the GAO study examines some of the tactical aspects of the Mayaguez operation, it mostly concentrates on the military and diplomatic aspects of the crisis as conducted from Washington, apparently to answer questions concerning how it was handled at the highest level of government. In contrast to the GAO study, MCOAG's study concentrates on the military response, given that the Mayaguez operation was ordered by the National Security Council (NSC). While the deliberations of the NSC were not available to either this or the GAO study, the decision of the NSC to act swiftly and forcefully is assumed to have been heavily influenced by:

- The act itself -- seizure of a U.S. ship on the high seas.
- The similarity to the seizure of the USS Pueblo in 1968, and a determination to prevent the outcome of that incident from happening again.
- The loss of national esteem and international prestige brought on by the 30 April 1975 surrender of the U.S.-supported Republic of Vietnam.
- The uncertainty regarding the intentions of the Communist Cambodian Government toward the Mayaguez crew. (Reports of a large number of executions after the Communists took over in mid-April probably reinforced a concern for their safety.)
- The increase in the use of military force necessary to recover the Mayaguez and her crew, if the ship was able to reach Kompong Som.

STUDY ORGANIZATION

This study is organized into eight sections and two appendices. The introduction (Section I) is followed by a summary of the Mayaguez operation (Section II), including the findings and lessons learned. Section III examines the posture and deployment of the U.S. forces responding to the crisis. Section IV outlines the broad planning at the JCS and CinCPac level and the detailed planning at the on-scene level. A discussion of the command and control aspects of the operation is included. Section V reconstructs the recovery of the Mayaguez and the helicopter assault on Koh Tang. Section VI examines the tactical air support and Section VII the naval gunfire support. An analysis of the operation is contained in Section VIII.

Appendix A provides a chronology of events, 12 to 15 May, as abstracted from messages relating to the operation. Appendix B contains a detailed examination of the USAF helicopter movements and support of the operation.

SECTION II

SUMMARY

This section is divided into four parts: (1) the background; (2) the assault on Koh Tang and the recovery of the Mayaguez and her crew; (3) the analysis; and (4) the findings and lessons learned. Throughout this section, reference is made to the sections, pages, or appendices where more detail can be found.

BACKGROUND

At 0830Z, 12 May 1975, the Delta Exploration Company in Jakarta received a distress message from the S.S. Mayaguez, a U.S. containership. The message reported that the Mayaguez had been fired on and boarded by Cambodians. The American Embassy, Jakarta, reported the seizure to Washington by message with a DTG of 120903Z. Approximately 3 hours later the JCS ordered (by phone) that air reconnaissance be furnished as soon as possible. The JCS confirmed the seizure by message DTG 121437Z.

On 13 May, at 0116Z, a Navy P-3 aircraft located the Mayaguez dead in the water about a mile northwest of Poulo Wai Island. Subsequent reports located her steaming on a course for Kompong Som, Cambodia and then, at 0650Z on 13 May, anchored about a mile off the northeast coast of Koh Tang (reference 1).

Uncertainty Concerning the Location of the Mayaguez Crew

The position of the Mayaguez was known to U.S. authorities from 13 May until completion of the operation. The location of the crew was uncertain. Late on 13 May, reports from surveillance aircraft indicated the crew had been moved to Koh Tang. The next day reports were received in Washington indicating that some of the crew had been moved to Kompong Som in a 40-ft. fishing boat. Actually, all of the crew were moved to Kompong Som on the 14th, but authorities in Washington were not aware of this fact (reference 2). As a result, a decision was made to assault Koh Tang.

¹ Throughout this study, times are generally recorded in Greenwich time (time zone "Z") or Gulf of Thailand time (time zone "G"). Unless otherwise indicated, all messages have a date, time, group (DTG) of May 1975. To convert from "Z" time to "G" time, add 7 hours.

The location was reported as 09°49'N, 102°53'E, 6.6 n.mi. south southwest of Poulo Wai Island, Gulf of Thailand.

Military Courses of Action

Several military courses of action to recover the Mayaguez and her crew were considered by the NSC from 13 to 15 May. The courses of action under consideration depended on the objective and the forces available at the time a military action might be ordered. For example, early planning considered the use of Air Force Security Police to board the Mayaguez from Air Force helicopters.

On 14 May, the NSC directed planning for the course of action that was implemented on 15 May. The forces involved were:

- Marine Battalion Landing Team (BLT) 2/9^I (1,000 men) from Okinawa, airlifted to Utapao Air Base (AB), figure II-1, on 14 May.
- Marine Rifle Company D, BLT 1/4, (120 men) airlifted from Subic Bay to Utapao on 14 May.
- USS Coral Sea (CVA-43), Commander Task Force 77 (CTF 77) embarked, ordered to the scene while enroute to Australia.
- USS Harold E. Holt (DE-1074), ComDesRon 23 embarked, and USS Henry B. Wilson (DDG-7), ordered to the scene from the Philippine Islands.
- Air Force helicopters based in Thailand, flown to Utapao on 13 and 14 May.
- Air Force tactical air and supporting aircraft based in Thailand.

In addition, Seventh Fleet surface amphibious units had been directed, during the early stages of the crisis, to proceed to the vicinity of Kompong Som. Three Amphibious Task Groups were formed and in various stages of response on 15 May (Section III). The force was tasked to plan for a Marine Amphibious Brigade (MAB) assault on Kompong Som.

JCS Concept for Planning

As a result of the NSC meeting on 14 May, the JCS issued a concept for planning guidance (JCS 140645Z):

- Holt would seize the Mayaguez with ship's company and/or Marines.
- Simultaneously, Marines, supported by Air Force helicopters and tactical aircraft (TacAir) and naval gunfire (NGF), would occupy Koh Tang.
- Planning would include air strikes against Kompong Som by B-52s and Navy TacAir from the USS Coral Sea (CV-43).
- Execution would be planned for sunrise, 15 May.

 $^{^{1}}$ 2d Battalion, 9th Marines. Navy medical personnel were included in BLT 2/9, the customary means of medical support to Marine units.

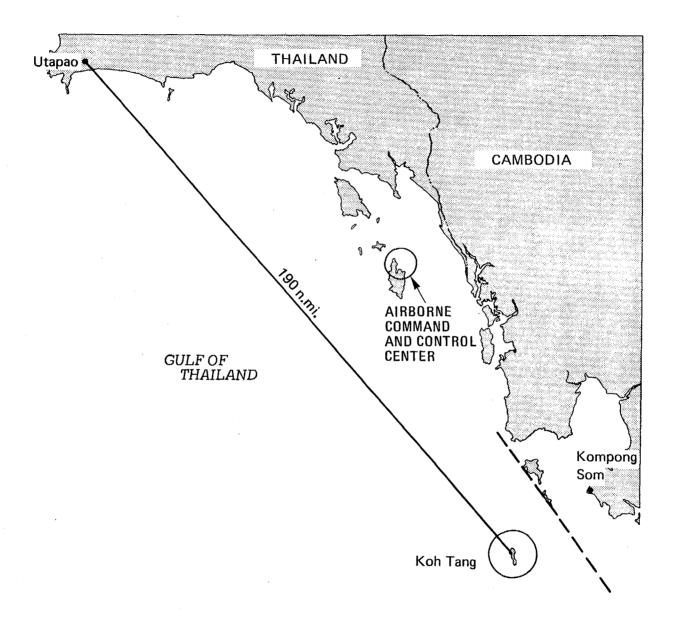


FIG. II-1: KOH TANG IN RELATION TO UTAPAO AIR BASE

Although not specifically included in the concept, U.S. Air Force helicopters would insert the Marines on Koh Tang and on Holt for subsequent boarding of Mayaguez.

Command and Control

CinCPac maintained operational control (OpCon) of all the forces involved in the Mayaguez operation. The on-scene military actions were conducted under the Commander, U.S. Support Activities Group (ComUSSAG), a joint command subordinate to CinCPac with headquarters at Nakhom Phanom Air Base, Thailand (approximately 400 miles north of Koh Tang). ComUSSAG was also commander of the 7th Air Force.

ComUSSAG/7AF was the designated on-scene commander and central coordinating authority. ComUSSAG/7AF exercised his command authority over forces participating in the Mayaguez operation through an Airborne Mission Commander (AMC) in an Airborne Command and Control Center (ABCCC). The designated orbit point for the ABCCC, shown in figure II-1, was about 90 n.mi. northwest of Koh Tang.

Navy and Marine units participating in the Mayaguez operation did not formally report for OpCon to ComUSSAG/7AF. These units were directed by the senior Navy and Marine Commands to respond to the directions and tasking of ComUSSAG/7AF and to conduct contingency operations as directed by CinCPac and ComUSSAG/7AF.

INTELLIGENCE ESTIMATES OF ENEMY STRENGTH

The assault force at Utapao received intelligence estimates of 20-40 irregulars on Koh Tang. The Commander Intelligence Pacific (ComIPac) and the Defense Intelligence Agency (DIA) issued significantly different estimates of enemy strength. ComIPac estimated 90-100 Cambodian troops, plus a heavy weapons squad; DIA estimated 150-200 men. ComUSSAG/7AF held the ComIPac estimates (reference 2); but, for reasons unknown to this study, neither the ComIPac nor DIA estimate was disseminated to the assault forces at Utapao. After the assault, the Ground Commander estimated actual enemy strength at about 150 professional soldiers, well-equipped with small arms, machine guns, recoilless rifles, and mortars.

On 13 and 14 May, U.S. aircraft received sporadic automatic weapons fire from the Mayaguez, Koh Tang, and small boats in the area. At least one, and perhaps three, aircraft received minor damage. A visual reconnaissance from an Army aircraft by key Marine personnel was restricted to 6,000 ft. over Koh Tang.

ASSAULT ON KOH TANG AND RECOVERY OF THE MAYAGUEZ AND HER CREW

Marine units consisted of a Command Group at Utapao, a Koh Tang assault force (BLT 2/9), and a boarding party (Co. D, BLT 1/4).

The mission assigned the Assault Force was to seize Koh Tang and search for the Mayaguez crew. The boarding party's mission was to board and recapture the Mayaguez.

Tactical Planning

Tactical planning, in conjunction with the Air Force helicopter units and under the guidance of ComUSSAG/7AF, commenced shortly after Marine units arrived at Utapao on 14 May and continued until after midnight. The planning had to accommodate the following factors:

- Maps of Koh Tang on a scale useful for tactical planning were not available.
- There were aerial photographs of the Mayaguez; however, aerial photographs of Koh Tang were not available until late on the night of 14 May.
- Aerial photographs of Koh Tang (when received) were not detailed enough to positively locate enemy emplacements or to be useful for calling in supporting fire.
- A limited number (11 total) of troop lift helicopters were available. A helicopter recycle time of 4 hours was required to insert a second wave.

It was necessary to make changes in the assault landing plans and scheme of maneuver as little as 4 hours prior to departure from Utapao because of changes to the selected landing zones.

The plan followed the JCS concept, with one exception -- the Marines recommended boarding Mayaguez directly from Air Force helicopters simultaneously with the assault on Koh Tang. This was approved by ComUSSAG/7AF and was incorporated in his planning as late as 2330G, 14 May. However, about midnight on 14 May, ComUSSAG/7AF changed his plans: the boarding party would be inserted on the Holt and then board the Mayaguez from the Holt. This late change in local plans was apparently directed by CinCPac. The helicopter schedule was not changed. As a result, the assault on Koh Tang and the insertion on Holt occurred about sunrise 15 May, followed by the boarding of the Mayaguez from Holt about 1-1/2 hours later.

Recovery of the Mayaguez and Her Crew

Between 0550 and 0624G on 15 May, 68 men¹ were inserted on Holt, located about 12 n.mi. west of the Mayaguez, from 3 Air Force helicopters. The Holt then approached the Mayaguez. At 0725G, Marines boarded the Mayaguez, encountering no resistance, and a search revealed that no one was aboard. At 0833G, the Mayaguez was declared secure, and Holt proceeded to tow her to international waters.

The boarding party consisted of 59 Marines from Company D, BLT 1/4; 6 Military Sealist Command personnel; 2 Air Force Explosive Ordnance Demolition personnel; and 1 U.S. Army linguist.

As described earlier, the Mayaguez crew had been transferred to Kompong Som on 14 May. From Kompong Som they were transferred to an island about 17 n.mi. north of Koh Tang where they spent the night. The next morning, about 0700G, the crew was placed on the Thai fishing boat and released. The fishing boat was approaching Koh Tang when intercepted by the Wilson, and the crew was recovered at 1005G.

First Wave Assault on Koh Tang

The assault force consisted of 180 men¹ loaded on 8 Air Force helicopters. Figure II-2 shows the two landing zones selected for the assault. The plan was to land 6 helicopters on the eastern side and 2 on the western side. The assault commenced about 0600G without supporting pre-assault air strikes or naval gunfire. The troop helicopters were not escorted by aircraft, such as the AC-130 or OV-10, that were capable of close-in suppressive fire. As they attempted to land troops, the helicopters encountered heavy small-arms fire. The first 3 helicopters were shot down (2 on the eastern and 1 on the western side); 14 men were lost. Within the next 15-20 minutes, 3 additional helicopters received major damage.

Figures II-3 shows the situation by 0630G. On the eastern side, 13 survivors (10 Marines and 3 Air Force crewmen) of one helicopter crash were in the water (13 had been killed in action); 20 Marines and 5 Air Force crewmen survivors of the second helicopter crash, were in the tree line on the beach.

The first helicopter that landed on the western side received heavy fire and damage while offloading troops. This helicopter ditched about three-quarters of a mile off shore after takeoff, with the loss of one Air Force crewman. The second helicopter that was to land on the western side also received heavy fire and damage. This helicopter, without offloading, proceeded to the nearest coastal point in Thailand and made an emergency landing.

Of the remaining four helicopters (all of which originally planned to land in the eastern zone), two offloaded troops under fire in the western zone and received major damage. The troops from these two helicopters brought the force of Marines in the western zone to 60, figure II-3. One helicopter offloaded 29 Marines, including the Assault Command Group, about 1,200 meters south of the western landing zone. The last helicopter, at 0630G, had not landed and was orbiting in the vicinity of the island.

By 0630G, of the 180 men in the first wave assault, 109 (61 percent) had been inserted in three locations. The last helicopter, after several attempts, offloaded 22 of the 27 Marines aboard in the western landing zone about 0900G before being driven

Of these, there were 177 Marines and Navy medical personnel from BLT 2/9, plus 3 U.S. Army linguists. Navy personnel in the assault waves consisted of 10 hospital corpsmen and 1 doctor.

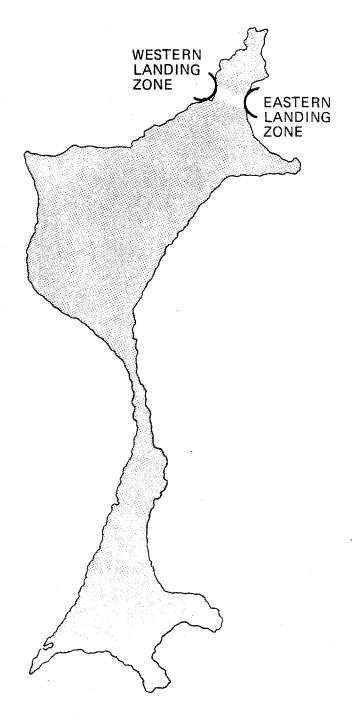


FIG. II-2: LANDING ZONES ON KOH TANG

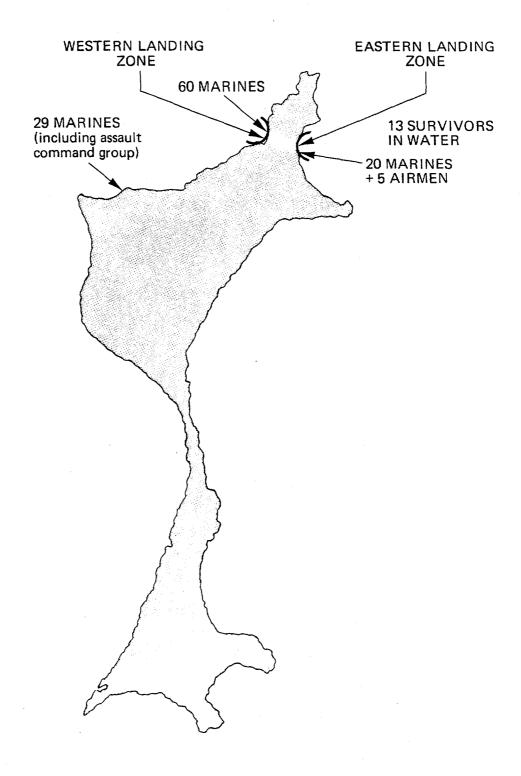


FIG. II-3: SITUATION ABOUT 0630

off. This helo received major damage at 1000G when it attempted to offload the remaining Marines. The insertion at 0900G completed the first wave and brought the total force to 131 (73 percent).

During the morning, fighting was close and intense. Between 0700G and 0800G, a patrol from the western landing zone was sent to contact the Command Group. The patrol ran into heavy enemy resistance; 1 Marine was killed in action (KIA), and several were wounded (WIA). No further attempts were made to break out of the western landing zone.

Shortly after 0800G, one helicopter of the three that inserted the boarding party on Holt attempted to rescue the 25 men on the eastern side. The helicopter received major damage and the attempt failed. The men on the eastern side maintained their position under small arms and automatic weapons fire. The Wilson, after her arrival about 0715G, happened to notice the 13 survivors in the water and recovered them between 0840 and 0930G.

The Command Group on the western side fought its way north to link up with the force in the western landing zone about noon.

Second Wave Assault on Koh Tang

After some command indecision concerning reinforcements, the second wave of the assault, consisting of 127 men of BLT 2/9 aboard 5 Air Force helicopters, commenced about 1210G. Three helicopters approached the eastern landing zone but were driven off by heavy small arms fire. One helo was damaged and proceeded to Thailand without disembarking troops. The remaining 4 helos were able to offload 100 troops in the western landing zone and extract 6 WIA. About the time that the second wave landed, the Command Group linked up with the force in the western landing zone. By about 1230-1300G, 205 Marines were in the western zone.

Extraction from Koh Tang

The JCS, apparently as a result of the recovery of the Mayaguez crew, ordered, at 1155G, all offensive actions to cease and to disengage and withdraw consistent with safety and self defense. After the second wave was inserted, two helicopters remained in the vicinity of Koh Tang. One of these, with air and naval support, made an attempt about 1415G to extract the 25 men on the eastern side. The helo received major damage and the attempt failed. The Marines were directed to plan for extraction by helicopter and/or by small boats or to remain overnight.

Shortly after 1800G, with 5 helicopters available, successful extraction of the assault force began. It required six helicopter loads and took 2 hours. The Marines were deposited on the Coral Sea and the Holt. Three helicoptors received major damage during the extraction. Three Marines missing in action after the extraction were later declared killed in action.

Supporting Arms Fire at Koh Tang

Supporting arms fire for the assault on Koh Tang consisted of Air Force TacAir and naval gunfire. Navy aircraft from the Coral Sea attacked facilities at Kompong Som and Ream airfield on the mainland.

USAF TacAir

The Air Force flew 131 TacAir sorties (excluding support aircraft sorties) between about 0530G and 2030G on 15 May in support of the Marine assault and boarding of the Mayaguez. Sixty-two sorties expended ordnance on Koh Tang and 4 expended Riot Control Agents (RCA) on Mayaguez. In addition, a C-130 aircraft dropped a BLU-82 bomb (15,000-lb. conventional explosive weapon) on Koh Tang late in the day, and OV-10 aircraft expended ordnance during the extraction. Ordnance from 6 Air Force sorties was expended on a small Cambodian boat.

When the assault on Koh Tang began, Air Force TacAir were overhead. Their attacks commenced about 0615G after the first 3 helicopters were shot down and continued with varying degrees of intensity throughout the day. As noted above, about 50 percent of the sorties expended ordnance. About 75 percent of the TacAir attacks on Koh Tang (76 total) occurred between about noon and 1800G that evening.

There was no dedicated airborne Forward Air Controller (FAC) at Koh Tang until an OV-10 aircraft arrived on the scene about 1600G, some 10 hours after the assault had begun. Air Force tactical aircraft were designated "on-scene" and "Search and Rescue (SAR) on-scene" commander throughout the day, commencing about the time of the assault. The on-scene commander responsibilities were changed about 14 times among 10 different aircraft during the day. About 4 turnovers were made from about 0530G to 0630G, an hour that included the critical, initial assault phase.

Navy TacAir

The Coral Sea made four launches of fighter and strike aircraft in support of the Mayaguez operation, commencing at 0700G. The first launch was scheduled to attack Kompong Som at 0745G. About 0715G, the President received a Cambodian broadcast in which it was stated that the Cambodians were prepared to release the Mayaguez; the Mayaguez crew was not mentioned. Apparently, as a result of the broadcast, the 0745 attack was cancelled, but it was reordered by the President minutes later. Aircraft from the Coral Sea then attacked Kompong Som at 0900G and at 1050G. Fifteen attack sorties released ordnance on the Cambodian targets. On the last launch (about 1130G), aircraft were directed to provide Close Air Support (CAS) under the direction of the ABCCC; however, they were not used for that mission. About 1200G, Navy A-7s did attack and sink a small Cambodian boat.

Naval Gunfire Support (NGFS)

In plans made before the assault on Koh Tang, the Holt and Wilson were designated as NGFS ships. However, when the first wave assault force was inserted on the island, Holt was about 12 n.mi. away on "helicopter station" receiving the boarding party. Until about 1700G, she was occupied with towing or escorting the Mayaguez. Wilson did not arrive at Koh Tang until about 0715G, when she noticed and recovered the 13 survivors in the water. She was then assigned (by ComDesRon 23 who was aboard Holt) the task of intercepting the Thai fishing boat which, as it turned out, had the Mayaguez crew aboard. Therefore, no NGFS ships supported the first wave assault.

Holt never fired a round from her 5" gun. At 1330G, after returning the crew to the Mayaguez, Wilson initiated NGFS on the eastern side of the island. The first rounds were fired under the control of an Air Force A-7. In total, she fired 1575" rounds on the eastern side and northern tip of the island, either on her own or under the control of A-7s. About 1800G, Wilson's gig, armed with 4 machine guns, provided suppressive fire for the extraction of the assault force from Koh Tang.

SUMMARY OF ANALYSIS

This summary of our analysis covers the following topics:

- Amphibious force responsiveness.
- Tactical planning to assault Koh Tang.
- Command and control.
- Helicopter vulnerability.
- Application of the Koh Tang assault experience to the amphibious assault concept.

Section VIII is a more extensive presentation of the analysis of the operation.

Amphibious Force Responsiveness

The response of the Marine units involved in the Mayaguez operation was excellent. Sixty hours after Washington learned of the crisis, Marine units departed Utapao, embarked on Air Force helicopters, to assault Koh Tang and recover the Mayaguez. Elements of BLT 2/9 (stationed at Okinawa about 2,000 miles from Koh Tang) assaulted the island 28 hours after being ordered to Utapao by the JCS.

The responsiveness of the surface amphibious forces was impeded by two factors. The force was dispersed as a result of the need to relocate units and reconstitute the Amphibious Ready Groups (ARGs) after the completion of the evacuation of Saigon (29 and 30 April). Also, 2 amphibious ships and the Hancock (CVA 19), which was pressed into service as an amphibious assault ship, were having engineering problems. The

estimated time of arrival (ETA) of the Hancock in the crisis area was delayed by 22 hours because of its engineering problems.

In spite of the force dispersion and maintenance difficulties, the Seventh Fleet amphibious force could have mounted a Marine Amphibious Brigade (MAB) assault, if so directed, near Kompong Som about 129 hours after orders were received by the initial units to get underway. The Seventh Fleet was the only component of U.S. military forces capable of forcibly occupying Kompong Som within that time frame and under the existing circumstances.

Tactical Planning to Assault Koh Tang

The planning for the assault on Koh Tang did not include or did not make adequate provisions for the following tactics:

- Pre-assault reconnaissance.
- Pre-assault strikes.
- Armed escort for the troop helicopters.
- Dedicated airborne forward air controllers.
- Naval Gunfire Support.

Except for the exclusion of pre-assault strikes, we have found no explanation of why the above tactics were not incorporated or, in the case of pre-assault reconnaissance, were not adequate. The OV-10 and AC-130 gunships were available in Thailand and could have been used for armed escort of the troop helicopters; the OV-10 was also available for the forward air control mission. After the initial losses, the OV-10 was deployed and proved very effective in the air controller mission during extraction. The Department of Defense stated (reference 2) that pre-assault strikes were not made because of concern for the safety of the Mayaguez crew; however, this concern is not expressed in the messages or other material that originated before the assault and were available to this study. The CinCPac and JCS planning messages include guidance that the assault of Koh Tang would be supported by TacAir and NGFS, but did not include restrictions on their use. The ICS "execute-message" specifically authorized TacAir and NGFS against Koh Tang; but, again, no restrictions on their use were included in the message. As a result of phone conversations of the Marine Task Force Commander and Air Force Wing Commander at Utapao with USSAG HQ about midnight, the assault force departed Utapao with the understanding that pre-assault strikes would be conducted as required. The ComUSSAG/7AF plan (reference 3) stated that Air Force tactical aircraft would provide pre-assault strikes as required. For reasons unknown to this study, ComUSSAG/7AF concluded that pre-assault strikes were not required.

If the crew's safety was the reason no pre-assault strikes were conducted, then information available to ComUSSAG/7AF concerning enemy forces and their activity would appear to make it imperative that the assault plans include the other tactics listed above.

Command and Control (C²)

ComUSSAG/7AF specified a highly centralized command and control plan (reference 3). The 7th Air Force Tactical Air Control Center (TACC) at Nakhom Phanom Air Base was designated the focal point for all mission-related activities and the Airborne Mission Commander (AMC) in the Airborne Command and Control Center (ABCCC) the focal point for all on-scene activities. All requests for action were to be addressed to the AMC, who would validate them through ComUSSAG/7AF in the 7th AF TACC.

As the on-scene commander and central coordinating authority, ComUSSAG tasked Navy, Marine Corps, and Air Force units. By direction and by communication channels, the line of command and control ran from ComUSSAG/7AF to the AMC (in the ABCCC) to units on or near Koh Tang.

The results of this study indicate a breakdown in the ${\rm C}^2$ system and in the coordinating function.

- For at least the first 1-1/2 to 2 hours, the status of the assault force and Air Force helicopters apparently was extremely confused. There appears to have been a loss of control over the helicopters after the first helicopter losses. This confusion is probably what led to the Ground Commander being inserted in a different location than his main body of troops.
- Situation reports were inaccurate and misleading.
- There was no directed search and rescue effort for the survivors of the helicopter crashes who were in the water.
- Ground force commanders, both on Koh Tang and at Utapao, were not kept informed of information essential to their mission.
- Naval gunfire support was ineffectively used.

A major problem in tactical command and control, especially for the first 6-8 hours, was the interface between the supporting air and naval forces and the ground forces. The ABCCC, as the ComUSSAG/7AF focal point for all on-scene activities, apparently was to provide this interface. The ABCCC was, however, too far from the scene to effectively carry out this function. The dispersion of the ground forces in three locations, loss of ground force UHF communications equipment, and lack of maps for tactical use were contributing factors to this ${\bf C}^2$ problem. However, the results of this study indicate that a major reason for the interface problem was the lack of an airborne forward

air controller at Koh Tang who could marshal and direct supporting fire assets, keep track of the tactical situation, and provide some continuity in reporting. Problems related to the ground/supporting arms interface improved considerably after a dedicated air controller (OV-10) arrived on the scene late in the afternoon of 15 May.

Helicopter Vulnerability

Table II-1 summarizes, by events, the number of helicopters exposed to small arms fire one or more times and the number receiving major damage, including those lost. Overall, 62 percent of the helicopters exposed to fire took major damage.

HELICOPTER VULNERABILITY

TABLE II-1

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Events	exposures to fire	taking major damage	Percentage damaged
First wave	9 ^a	8 ^b	89
Second wave	5	1	20
Extraction	_7 ^c	_4	<u>57</u>
Total	21	13	62

^aIncludes one helo that inserted the boarding party on Holt.

The high helicopter attrition has been used in some reports to question the feasibility of amphibious helicopter assault. We believe the Koh Tang experience cannot be used to demonstrate the infeasibility of vertical amphibious assault because:

- The assault was not carried out in accordance with amphibious doctrine.
- Of the 8 helicopters damaged or lost in the first wave, 6 were damaged or lost before there was any air or naval gunfire support.
- Naval gunfire was not available for the first and second wave insertions.
- Effectiveness of air and naval gunfire support, when available, was questionable because of command and control problems.

bIncludes three helos that were lost.

 $^{^{} exttt{C}}$ Includes two helos that attempted an extraction at 1415G.

- Twelve of the 13 loss/damage incidents (table II-1) occurred when there were 33 or fewer Marines in the landing zone to provide suppressive ground fire.
- One helicopter (in the second wave) took major damage when it flew low over the island between the east and west landing zones, in effect, inviting enemy fire.
- Helicopter approach and landing tactics were not in accordance with amphibious assault training and reflected the lack of pilot training in amphibious assault.

It should be noted that 201 of the 226 personnel were extracted from the west side of Koh Tang, where there was no naval gunfire support for the entire action. Three aircraft - 1 AC-130, 1 OV-10, and 1 A-7D 1 - supported the extraction from the west side with attacks on machine guns and enemy troop positions. The Wilson's gig, armed with machine guns, also supported the extraction.

Application of the Koh Tang Assault Experience to the Amphibious Assault Concept

Doctrine

U.S. Marine Corps amphibious assault doctrine calls for:

- Pre-assault reconnaissance.
- Pre-assault air strikes and naval gunfire support.
- Escort of troop helicopters by armed helicopter (AH-1J) capable of responsive suppressive fire.
- Rapid insertion and troop buildup.
- Tactical integrity.

It is, of course, impossible to say what would have happened at Koh Tang had these assault tactics been adhered to and supporting arms used more effectively. The results strongly suggest that had doctrine been followed the chance of success would have been greatly increased.

The OV-10 was replaced by another OV-10 during the extraction. The A-7D departed the area about one hour before completion of the extraction.

Amphibious assault doctrine emphasizes superiority of force and the use of supporting arms in conjunction with the assault.

The ratio of the Marine Corps assault force strength (in number of men) to the estimated enemy strength of about 150 built up to 0.7 by 0630G and increased to about 0.9 by 0900G. A maximum ratio of about 1.5 was achieved when the second wave reinforcements arrived about 1230G.

The doctrine further states that in the face of a compelling necessity, an amphibious operation may be undertaken if a reasonable total superiority of force (naval, air, and ground) is present. As an example, naval and air superiority may justify a landing even though the desired numerical superiority in the landing force is not present, provided the naval and air units are used effectively. In the initial Koh Tang assault operation, naval units were not present, and air units were not used effectively.

It appears that there were adequate supporting arms (131 Air Force TacAir sorties, and 2 Navy destroyers) at Koh Tang in relation to the enemy that was encountered, but those arms were not used effectively because of the command and control and coordination problems previously discussed. The ground fighting was the heaviest and the situation perhaps most critical from 0600G to about 1230G when the second wave arrived. During this period, there were only about 12-16 TacAir attacks expending ordnance on the island and no naval gunfire support.

Ground/Air Team

The Marine Corps amphibious assault concept emphasizes the use of air forces (helicopter and fixed-wing) to support the gound forces. The integration of Marine Corps ground and air forces into a team for training and operations is a result of this emphasis.

In the Mayaguez operation, problems in tactical command and control (including control of CAS aircraft) and, at the tactical command level, an apparent lack of understanding of the ground forces role underline the importance of the ground/air (helicopter and fixed-wing team) training concept. Effective training in the air support of ground forces must be continuous and permeate all levels of command.

Amphibious Assault Concept

The amphibious assault concept was derived from the requirement for forcible entry into hostile territory. The Mayaguez operation provides two examples of the Marine Corps capability to project this force:

- Assault on Koh Tang.
- Recapture of the Mayaguez by a U.S. Marine Corps boarding party.

Additionally, the Seventh Fleet amphibious force provided the means by which the national decision makers could extend their options to include an assault on Kompong Som.

FINDINGS AND LESSONS LEARNED

The environment in which the Mayaguez operation was conducted is summarized as follows: Marine units and Air Force helos were hastily assembled at Utapao. Naval surface units arrived in position off Koh Tang just hours before and, in one case, after the operation began. A Navy carrier was in position south of Koh Tang but was not tasked to provide direct support to the assault. The forces were tasked, directed, and coordinated by a joint commander who was also commander of the 7th Air Force. There was little time to improvise on established tactics. The Navy and Marine Corps units operated in a command environment that apparently was not familiar with amphibious assault doctrine and landing force support requirements. The Air Force units operated in their normal command and support channels, but the Air Force helos were tasked to carry out a mission for which they had no training. World-wide communications provided the means for higher authorities to direct the planning and execution to the level of detail considered necessary.

It is within that context that the findings and lessons learned are drawn.

Findings

- The responsiveness and readiness of the military units involved in the Mayaguez operation were excellent (Section VIII, page 1).
- The U.S. Joint Command was surprised by the Cambodian resistance at Koh Tang (Section III, page 8).
- The Joint Command failed to adequately plan for the contingent event of armed resistance and to effectively utilize and coordinate available forces (Section VIII, page 5).
- There was a failure in the dissemination of intelligence concerning enemy forces (Section IV, page 11).
- The Joint Command did not adhere to amphibious assault doctrine (Section VIII, page 21).
- The high helicopter attrition at Koh Tang does not demonstrate that amphibious helicopter assault is infeasible (Section VIII, page 17).
- On-scene reporting of the assault on Koh Tang was inaccurate and led to misunderstanding and confusion at the command and control centers (Section VIII, page 8).

Lessons Learned

- A joint commander must place command attention on the immediate requirements of the units that are detached from their normal command support channels and reporting to him. He must consult and coordinate closely with the commanders of such units on decisions affecting their mission. Unfamiliarity with the doctrine and tactics of the attached units emphasizes this need for close consultation.
- Each service's doctrine is built on experience and should not be violated unless the reasons are compelling.
- Highly centralized control of small tactical operations places a premium on accurate "on-scene" situation reporting.
- A Joint Commander of a small operation becomes involved in details that normally would be left to component commanders in larger operations. This factor should be carefully considered before designating a commander of a joint operation when the major mission area lies outside his service experience.

SECTION III

U.S. FORCES

INTRODUCTION

This section describes the posture following the evacuation of Saigon, and the repositioning of the U.S. Navy/Marine Corps forces, including the Seventh Fleet Amphibious Force, in response to the Mayaguez crisis. A brief description of the movement of Air Force helicopters supporting the assault is also included.

The U.S. Marine Corps furnished the ground troops, including U.S. Navy medical personnel, that assaulted Koh Tang and boarded the Mayaguez. The troops were supported by U.S. Air Force helicopters and tactical aircraft (from bases in Thailand), and by 2 U.S. Navy destroyers. Also, tactical aircraft from a Navy carrier conducted strikes on the mainland of Cambodia. The U.S. Army supplied 3 linguists to the Koh Tang assault force and 1 to the Mayaguez boarding party, which also included 6 personnel from the Military Sealift Command (MSC). The Seventh Fleet Amphibious Force (not involved in the combat action) was ordered to proceed to the vicinity of Kompong Som to carry out contingency plans if so directed.

SEVENTH FLEET AMPHIBIOUS FORCE POSTURE: 12 MAY 1975

Evacuation of Saigon (Operation Frequent Wind)

The Seventh Fleet Amphibious Forces (TF76 and TF79) completed the emergency evacuation of Saigon, Republic of Vietnam, on 29 and 30 April 1975. The evacuation, known as Operation Frequent Wind, required a massive TF76/TF79 commitment off the shores of South Vietnam, as shown in table III-1. In addition to the 3 battalion landing teams (BLTs 2/4, 1/9, and 3/9) of III Marine Amphibious Force (MAF) that were embarked on CTF 76 amphibious ships, 3 others (BLTs 2/9, 3/4, and 1/3 deployed from Hawaii) were on alert at Okinawa as air contingency BLTs (ACBLTs).

The Amphibious Evacuation Security Force, embarked on the Dubuque, consisted of 720 personnel drawn from various III MAF units. On 18 April, before the completion of Operation Frequent Wind, this security force relieved BLT 1/4 of its mission to maintain order on MSC ships, crowded with refugees, after which BLT 1/4 proceeded to Subic Bay to be reconstituted as a replacement for BLT 2/4.

The 34 CH-53D, 29 CH-46D, 8 AH-1J, and 6 UH-1E Marine Corps helicopters, embarked on the Seventh Fleet ships as shown in table III-1, represented 90, 83, 80, and 38 percent, respectively, of each type of helicopter on hand in III MAF. The 34 CH-53D helicopters included 16 CH-53Ds of unit HMH-463, which was deployed from Hawaii in late March.

TABLE III-1

SEVENTH FLEET AMPHIBIOUS FORCE COMMITMENT

(29 April 1975)

ch: "å	Park and a 1	Landing Force Personnel (exclusive
<u>Ship</u> ^a	Embarked	of ship's company)
Blue Ridge	HQ 9th MAB CO A, BLT 1/9 DET P 1st Radio BN HMM 165 DET 1 CH-46D 2 UH-1E	354
ARG Ab		
Okinawa Vancouver Thomaston Peoria	BLT 2/4 LSU 2/4 HMM 462 18 CH-53D 3 CH-46D 4 AH-1J 2 UH-1E	1,730
ARG Bb		
Hancock Durham Frederick	BLT 1/9 LSU 1/9 HMH 463 16 CH-53D 16 CH-46D 4 AH-1J 2 UH-1E	1,710
ARG Cb		
Denver Mobile Duluth Anchorage ^C	BLT 3/9 LSU 3/9 MAG 36 Sub Unit 2 2 CH-46D	1,570
Dubuque	Amphibious Evacuation Security Force	720
	HMM-165 7 CH-46D	110
Midway	10 USAF CH/HH-53	

 $^{^{\}mathbf{a}}$ USS Mt. Vernon, USS Barbour County, and USS Tuscaloosa in operating area as "on call" units.

^bARG: Amphibious Ready Group.

 $^{^{\}mathbf{c}}$ USS Anchorage arrived 30 April.

All the amphibious ships available to the Seventh Fleet (45 percent of the Pacific Fleet Amphibious Force) were deployed in April off the coast of South Vietnam. Two TF77 CVAs were assigned an amphibious role. The Hancock (CVA-19) was wholly committed. The Midway's aircraft were reduced in number to accommodate 10 Air Force CH/HH-53 helicopters.

ARG A/31st Marine Amphibious Unit (MAU) had been at sea since 1 March (except for a brief 24-hour period at Subic Bay on 17-18 April) in response to the evacuations of Phnom Penh and Saigon. The Hancock departed Pearl Harbor on 26 March with HMH-463 embarked; made a brief 3-day stop in Subic Bay to offload her aircraft and embark units of BLT 1/9, additional USMC helicopters, and HQ 9th MAB; departed Subic on 9 April; and, except for a 2-day period in Singapore, remained at sea responding to the evacuation of Phnom Penh and Saigon. The Durham, Frederick, Dubuque, and Blue Ridge, all with Marine Corps units embarked, had been at sea since 30 March. ARG C ships arrived from Pearl Harbor on 17 April, embarked BLT 3/9 at Okinawa and Japan, and immediately deployed to the operating area off the coast of South Vietnam.

After the evacuation of Saigon, the amphibious force remained off the coast of South Vietnam until late on 2 May, collecting, redistributing, and consolidating the evacuee load and assisting various South Vietnamese vessels in distress. By counting all the evacuees in the MSC, U.S. Navy, and South Vietnamese navy ships, plus those reported in miscellaneous ships, CTF 76 estimated that 80,000 evacuees would begin to arrive at Subic Bay on 3 May (reference 4). The amphibious force arrived at Subic Bay on 3 and 4 May.

Force Location and Status: 12 May

CTF 76 anticipated that the amphibious forces would return to normal operations after arriving at Subic and offloading the evacuees (reference 4). To return to normal operations, the forces had to:

- Reconstitute ARG A/31st MAU.
- Reconstitute ARG B/BLT B.
- Return BLT 2/4, 1/9, and helicopter units to Okinawa.
- Return Amphibious Evacuation Support Group to Okinawa.
- Return ACBLT 1/3 to Hawaii.
- Return the PhibRon 1 ships (Vancouver, Dubuque, Durham, Thomaston, Peoria, and Frederick) and the Blue Ridge to CONUS.
- Return HMH-463 to Hawaii.
- Reestablish the III MAF training rotation cycle.
- Reconstitute the Hancock and the Midway as TF77 CVAs.
- Maintain a Marine Force committed to security of the refugee camp and MSC ships transiting to Guam.

Those actions were being carried out on 12 May, a week after the arrival of amphibious forces at Subic and the day of the seizure of the Mayaguez. The Dubuque, Durham, and Frederick, with ACBLT 1/3 embarked, sailed on 7 May from Okinawa for Pearl Harbor via Japan. HMH-463 embarked on the Enterprise (CVA-65) on 4 May, and the Enterprise sailed for Hawaii on 5 May. The locations and status of the remaining Seventh Fleet Amphibious Force as of 12 May are shown in table III-2 (by ship) and table III-3 (by III MAF BLT). The 9th MAB, activated on 26 March for planning and on 20 April for Frequent Wind operations, was deactivated on 12 May at 0600H. ("H" designates local time, Subic Bay.)

The locations on 12 May of five other U.S. Navy ships, not in the amphibious task force but involved in the recovery of the Mayaguez, are shown in table III-4.

FORCE MOVEMENTS IN RESPONSE TO SEIZURE OF THE MAYAGUEZ

First orders to U.S. Navy surface ships were to Harold E. Holt, with ComDesRon 23 embarked, and the USS Vega. At 1400Z on 12 May, these two ships were enroute to the vicinity of the seizure. The Henry B. Wilson, steaming south from Kao-hsiung, Republic of China, enroute to Subic Bay, was ordered to the vicinity early on 13 May. CinCPacFlt message DTG 121812Z May ordered the Coral Sea and her 3 escorts to proceed to the vicinity of 9°20'N/102°40'E to support forces proceeding to the area, and directed ARG A to make all preparations for getting underway. Approximately 2 hours later, ComSeventhFlt was directed (CinCPacFlt 122028Z May) to prepare the Hancock for departure from Subic Bay as soon as possible, with Marine helos and troops that were available. CTF-79, by message DTG 130148Z May, activated the 9th MAB, effective 130900Z, with preliminary guidance to plan for occupying the port of Kompong Som.

As a result of the above actions, the Holt arrived in the vicinity of Koh Tang about 2300G on 14 May; the Vega about 0520G, and the Wilson about 0715 on 15 May. The Coral Sea was about 125 n.mi. SSW of Koh Tang at 0600G on 15 May, in position to support the Mayaguez recovery operation.

Marine Corps units were ordered to embark on CTF 76 amphibious ships, plus the Hancock, as shown in table III-5. The Hancock and the Mobile departed Subic Bay about mid-day of 14 May. The estimated departure of ARG A/31st MAU was on 15 May. ARG B/BLT B was underway from Okinawa on 13 and 14 May, enroute to Subic Bay. Subsequently, on 14 May, ARG B/BLT B was ordered to sail directly to the vicinity of Kompong Som, bypassing Subic Bay.

On 13 May, the JCS (JCS 131610Z May) ordered to Utapao all available Air Force helicopters in Thailand, 75 Air Force security police from Nakhom Phanom, and 2 platoons (Rein) of Marines from NAS Cubi Point. In addition, a Marine battalion at Okinawa was directed to be placed on advanced posture for deployment to Utapao; 3 hours later (JCS DTG 131912Z May), they were deployed.

TABLE III-2

STATUS OF AMPHIBIOUS SHIPS, WESTPAC (as of 12 May)

Ships	Location	USMC embarked	Remarks
ARG A/31ST MAU (BLT 1/4)			
Okinawa (LPH-3)	Enroute to Okinawa (ETA 13 May)	Elements BLT 2/4, helos	Engineering plant problems
Duluth (LPD-6)	Subic Bay	Elements BLT 1/4	Undergoing boiler repairs
Barbour Co. (LST-1195)	Enroute to Okinawa	Opportune lift	
Mt. Vernon (LSD-39)	Manila	Elements BLT 1/4	
	Elements of BLT 1/4 not embark	ed located at Subic	
ARG B/BLT B (BLT 3/9)			•
Denver (LPD-9)	Okinawa	-	
Mobile (LKA-115)	Subic Bay	Elements BLT 3/9	
Anchorage (LSD-36)	Enroute to Fuji, Japan	Elements BLT 3/9	
Tuscaloosa (LST-1187)	Okinawa	-	
	Elements BLT 3/9 not embarked	located at Okinawa	
Other Amphibious Ships, WE	STPAC		
Vancouver (LPD-2)	Subic Bay	Elements BLT 2/4	Scheduled to be underway for Okinawa on 13 May.
			Offload depart for Pearl on 17 May.
Thomaston (LSD-28)	Subic Bay	Elements BLT 2/4	Ħ .
Peoria (LST-1183)	Subic Bay	Elements BLT 2/4	11
	Operational control of BLT 2/4 transferred to ComUS for security of refugee	Nav, Philippines	

TABLE III-3

LOCATION(S) OF III MAF BLTS (as of 12 May)

III MAF BLT	Location of BLT	Remarks
BLT 1/4	Subic Bay	
	Elements embarked: Duluth (Subic) Mt. Vernon (Manila)	
BLT 2/4	Elements embarked: Okinawa (Enroute to Okinawa) Vancouver (Subic) Thomaston (Subic) Peoria (Subic)	Operational control of remaining elements trasnferred to ComUSNav, Philippines for security of refugee operations.
BLT 3/4	Okinawa	
BLT 1/9	Okinawa	Offloaded 6/7 May from the Durham, Frederick, and Dubuque
BLT 2/9	Okinawa	
BLT 3/9	Okinawa	Offloaded 12 May from the Denver, Anchorage, and Tuscaloosa
	Elements embarked: Mobile (Subic) Anchorage (Enroute to Fuji, Japan)	

TABLE III-4

OTHER U.S. NAVY SHIPS INVOLVED IN MAYAGUEZ RECOVERY OPERATIONS

(location on 12 May 1975)

Ship	Location	Remarks
Hancock (CVA - 19)	Subic Bay	Undergoing engineering repairs
Coral Sea ^a (CVA - 43) and escorts	Enroute to Australia	Departed Singapore on 9 May
Harold E. Holt (DE-1074)b	At sea off Subic Bay	About 100 n.mi. SSW Subic Bay
Henry B. Wilson (DDG-7)	At sea north of Subic Bay	Enroute to Subic from Kao-hsiung, Republic of China
Vega (AF-59)	At sea off Subic Bay	About 100 n.mi. SSW Subic Bay.

 $^{^{\}rm a}$ CTF-77 embarked. Coral Sea's aircraft consisted of 20 F-4, 19 A-7, 8 A-6, 5 KA-6, 3 EA-6, 3 RF-8, 3 E-1B, and 4 SH-3G (helos).

bComDesRon 23 embarked.

TABLE III-5

WESTPAC AMPHIBIOUS SHIPS AND EMBARKED USMC UNITS (As of 141600Z May)

Amphibious ships	Embarked	Time of departure	ETA Kompong Som area	Embarked helicopters
Special Assault force				
Hancock	CG 9th MAB HMH-462 E Co. BLT 2/4 G Co. BLT 2/4 81-mm mortar Plt. Recon. Plt. 106-mm Plt. 1st Radio Bn., Det. P Shore Party, Det. Eng. Det. ITT Det.	1406002/Subic Bay	161600Z	HMH-462: 11 CH-53D 2 CH-46D 2 UH-1E 4 AH-1J
Mobile	K Co., BLT 3/9 LSU 3/9	140320Z/Subic Bay	161600Z	
ARG A/31st MAU				
Okinawa ^b	CO 31st MAU A Co., BLT 1/4 C Co., BLT 1/4 H&S Co., BLT 1/4 HMH-165	151000Z ^a /Subic Bay	180300Z	HMM-165: 4 CH-53D 14 CH-46D 2 UH-1E 3 AH-1J (plus 2 CH-53D for HMH-462)
Duluth	B Co., BLT 1/4 G Battery Amtrac Plt.	141000Z/Subic Bay	170300Z	
Barbour Co. C	D Co. (-) BLT 1/4 Truck Plt.	151000Z ^a /Subic Bay	1803002	
Mt. Vernon	LSU 1/4 Shore Party Eng. Det. Tank Plt.	151000Z ^a /Subic Bay	180300Z	
ARG B/BLT B				•
Denver	BLT 3/9 (minus	130600Z/Okinawa	1802002	
Anchorage	units on the	140600Z/Okinawa	190200Z	
Tuscaloosa	Mobile)	1307002/Okinawa	1802002	
Other				
Vancouver		alert status		
Thomaston	-	alert status		
Peoria		alert status		

aEstimated times of departure.

b_{To arrive Subic Bay 150200Z.}

^CArrived Subic Bay 132300Z.

In response to the JCS orders, the Commander, U.S. Support Activities Group, who was also Commander of the 7th Air Force (COMUSSAG/7AF), commenced movement of 16 helicopters (8 CH-53s and 8 HH-53s) and an estimated 125 Air Force security police to Utapao on the night of 13 May. One CH -53 crashed enroute, about 2130G on 13 May, with the loss of 4 crewmembers and 19 passengers. Thirteen helicopters arrived at Utapao the night of 13 May or during 14 May, and the remaining two arrived on 15 May.

At 2000H on 13 May, D Co., BLT 1/4 at the MAU Camp, Subic Bay, was alerted to be prepared to move out. At 2330H, Co. D (-) (Rein), comprised of 5 officers and 115 enlisted men, moved to the airstrip at NAS Cubi Point. At 0143H on 14 May, they departed for Utapao aboard a C-141, accompanied by 6 Navy personnel from the Mobile and the Duluth and 6 MSC personnel, and arrived at Utapao at 0443G.

At 2030I (I designates local time, Okinawa) on 13 May, BLT 2/9 on Okinawa received orders to pack up and move to Kadena Air Base. The first elements of that unit were enroute at 0115I on 14 May. BLT 2/9 (1,037 personnel) was reported as being in an advance position for deployment as of 0435I on 14 May (CTF 79 132124Z May). The air-lift of BLT 2/9 personnel and cargo by 15 C-141s commenced at 0605I on 14 May, with the first aircraft arriving at Utapao at 0930G and the last aircraft at about 2032G. The airlift of personnel was completed at 1330G by the first 9 aircraft.

The locations, as of about 1800G on 14 May, of the U.S. forces responding to the seizure of the Mayaguez are shown in table III-6. Marine Corps units at Utapo were organized as follows:

CTG 79.9 CTU 79.9.1

CTU 79.9.2

Command Group, Utapao BLT 2/9 (Rein) (assault elements on Koh Tang) Co. D (-) (Rein), BLT 1/4 (Mayaguez boarding party)

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TABLE III-6

LOCATION OF U.S. FORCES RESPONDING TO THE SEIZURE OF THE MAYAGUEZ

(as of 1800G on 14 May)

Co. D (-) (Rein), BLT 1/4 (120 personnel) plus 6 Navy, 6 MSC personnel	Utapao AB	Arrived 14 May at 0443G
ACBLT 2/9 and Command Group (1,037 personnel)	Utapao AB	Arrived 14 May between 0930G and 1330G
13 USAF CH/HH-53s	Utapao AB	2 helicopters arrive 15 May
Harold E. Holt	Estimated 150 n.mi. SE of Koh Tang	
Henry B. Wilson	Estimated 390 n.mi. SE of Koh Tang	
Coral Sea and 3 escorts	Estimated 500 n.mi. south of Koh Tang	
Separate Assault Force Hancock/Mobile: embarked CG 9th MAB, 3 Rifle Co., HMH-462, Detachments	Estimated 100 n.mi. SW of Subic Bay	Hancock could arrive Koh Tang in 44 hrs. at 25 kts.
ARG B/BLT B	Estimated just north of Luzon	Estimated 79 hrs. to Koh Tang at 18 kts.
ARG A/31st MAU	In port, Subic Bay	Estimated time of departure 151000Z
USAF Tactical Air/Navy P-3s	From Thailand bases	Interdiction of small boats and surveillance of Mayaguez

SECTION IV

PLANNING

INTRODUCTION

Planning at the NSC/JCS level and by the Western Pacific Commands, that related to the various courses of military action being considered, proceeded concurrently with the movement of U.S. forces. This section examines the planning of the Mayaguez operation, including command and control. The section is divided as follows:

- General planning.
- Tactical planning.
- Command and control.

GENERAL PLANNING

Table IV-1 outlines the planning evolution, as evidenced by the messages cited in the table, from the first mission assignment to the final plan issued by ComUSSAG/7AF. From table IV-1, possible military courses of action, considered singly and in combination on 13 and 14 May, included:

- Seizure of Poulo Wai Island.
- Blockage, mining, and occupation of the port of Kompong Som.
 - Seizure of Koh Tang.
 - Boarding of the Mayaguez with:
 - The crew of the Holt.
 - Air Force security police from Air Force helos.
 - Marine forces from Air Force helos.
 - Marine forces from the Holt (placed on the Holt by Air Force helos).
 - Air strikes on Kompong Som facilities by B-52s or Navy TacAir.

Figure IV-1 shows the geographic location of Koh Tang with respect to Utapao Air Base, Thailand, and the Cambodian mainland. As pointed out earlier, the Mayaguez was anchored about a mile northeast of Koh Tang.

By 1200G on 14 May, a concept of the nearly simultaneous actions of: 1) boarding the Mayaguez, 2) seizing Koh Tang, and 3) employing Navy TacAir to strike mainland targets at Kompong Som was being discussed by the highest levels of command. At 1345G, the JCS issued a message containing a concept for planning: 1) the Holt was to seize the Mayaguez with ship's company and/or Marines; 2) Koh Tang was to be seized by Marine Corps units supported by Air Force helos; and 3) B-52s and/or Navy TacAir were to strike targets at Kompong Som. TacAir and Naval Gunfire Support (NGFS) were to be used as required. Execution was planned for sunrise on 15 May (reference 5). Plans were requested by 2000G, 14 May.

TABLE IV-1 MISSION AND PLANNING EVOLUTION

Date and Local (Gulf of Thailand) Time (G)	Abstract Related to Mission, Plans	Originator of and Date, Time Group of Message
12 May		
1603	Seizure of the Mayaguez reported to Washington	American Embassy Jakarta 120903Z
1900	Air reconnaissance ordered	CinCPacFlt 1213372
13 May		
0328	Mission to seize Poulo Wai Island assigned the Hancock and embarked USMC units	CinCPacF1t 122028Z
0600	Discussion of Blockade of Kompong Som by ComDesRon 23, the Holt, the Wilson	ComSeventhF1t 122300Z and 122350Z
	Mining of Kompong Som by Coral Sea aircraft	
0816	Mayaguez reported dead in water 1 n. mi. NW Poulo Wai	ComIPac 240340Z
0848	Planning guidance to 9th MAB to occupy port of Kompong Som	CTF-79 130148Z
1037	Mayaguez reported steaming toward Kompong Som	ComIPac 131517Z
1350 a	Mayaguez reported anchored off Koh Tang	ComIPac 240340Z

a DTGs are all in May 1975.

TABLE IV-1 (Cont'd)

	Date and Local (Gulf of Thailand) Time (G)	Abstract Related to Mission, Plans	Originator of and Date, Time Group of Message
,	14 May (Cont'd)		
	2215	ComUSSAG/7AF plans included USAF helos to lift first wave on Koh Tang and boarding party on the Mayaguez simultaneously at 0545G, 15 May	ComUSSAG/7AF 141515Z
	2351	ComUSSAG aircraft schedule directs inser- tion on Koh Tang and the Mayaguez simul- taneously from AF helos at 0542G, 15 May	ComUSSAG/7AF 141651Z
	15 May		
မြ တ ၊	0000	ComUSSAG/7AF directed (by Telecom) units at Utapao to insert boarding party on the Holt. The Holt proceeded alongside the Mayaguez	56 SOW 191200Z
	0030	ComUSSAG/7AF issued plan. Simultaneously, boarding party to be inserted on the Holt (from helos) and USMC to assault Koh Tang (at first light, 15 May). Plan included use of AF and Navy TacAir, B-52s	ComUSSAF/7AF 141730Z

^aDTGs are all in May 1975.

TABLE IV-1 (Cont'd)

Date and Local (Gulf of Thai-land) Time (G)	Abstract Related to Mission, Plans	Originator of and Date, Time Group of Message
14 May (Cont'd)		
0745	ComUSSAG/7AF directed to plan for use of USMC vice USAF security police. CinCPac to execute on order of JCS	CinCPac 140045Z
1123	USMC planning underway at Utapao to secure the Mayaguez and Koh Tang	FASU Utapao 1404232 and 1406482 for CTF-79.9
1200	Concept of near simultaneous employment of TacAir, boarding of the Mayaguez, seizure of Koh Tang, and air strikes on land. To be executed first light 15 May	PhoneCon: NMCC, CinCPac, ComUSSAG/7AF and others as reported by CinCPacFlt 140657Z
1345	JCS issues concept for planning. The Holt to seize the Mayaguez with ship company and/or USMC. Occupy Koh Tang with USMC supported by AF helos, TacAir, and Naval Gunfire. Possible use of the Coral Sea TacAir and B-52s against Kompong Som. Planning for target area sunrise, 15 May	JCS 140645Z
1415	CTG-79.9 received mission from ComUSSAG/7AF: Seize Koh Tang and simultaneously seize the Mayaguez from the Holt with troops placed on the Holt by USAF helos	CTG-79.9 151138Z
1954	CinCPacFlt concept for boarding the Mayaguez from the Holt and simultaneously seizing Koh Tang on 15 May	CinCPacFlt 141254Z
2100	CTG-79.9 provided a plan to ComUSSAG to board the Mayaguez from helos, simultaneously inserting USMC on Koh Tang first light, 15 May	CTG-79.9 141400Z

^aDTGs are all in May 1975.

TABLE IV-1 (Cont'd)

Date and Local (Gulf of Thai-land) Time (G)	Abstract Related to Mission, Plans	Originator of and Date, Time Group of Message
13 May (Cont'd)		
1620	General Concept promulgated for USMC units to seize Poulo Wai Island and/or Kompong Som as required	CTF-79 130920Z
1755	ComUSSAG to maintain fighter/gunship cover over the Mayaguez; attempt to obtain release; and prevent going into port (Kompong Som)	CinCPac 131055Z
2059	The Holt on arrival to be prepared to move the Mayaguez with own resources or disable the Mayaguez	CinCPac 131359Z
2304	Current planning options included USAF helo lift of USMC forces at Utapao to seize the Mayaguez and take Poulo Wai Island	ComSeventhF1t 131604Z
14 May		
0048	ComUSSAG/7AF plan to seize the Mayaguez with 125 USAF security police, lifted by USAF helos. Plan to be executed 0600G 14 May	USSAG/7AF 131748Z Supplemental Special Instruction (SSI)
0131	Seventh Fleet directed to include Koh Tang in planning	CinCPacF1t 131831Z
0321	ComUSSAG/7AF issued plan superceding his 131748Z. Boarding party composed of USAF security police or USMC	USSAG/7AF 132021Z SSI
0351	CinCPac directed ComUSSAG to change his 131748Z to read USMC vice USAF security police	CinCPac 132051Z

^aDTGs are all in May 1975.

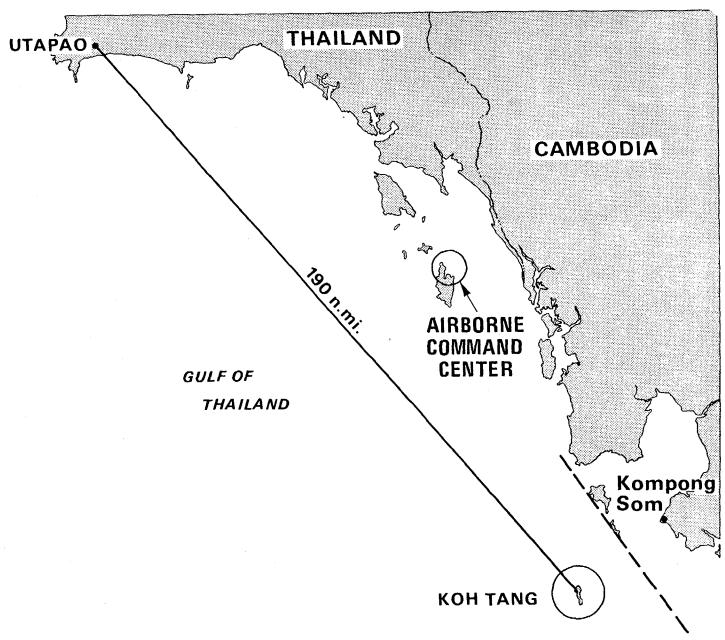


FIG. IV-1: KOH TANG IN RELATION TO UTAPAO AIR BASE

On 14 May, at 1954G, CinCPacFlt proposed to CinCPac a plan based on the above concept. At first light on 15 May (0542G), Air Force helos were to insert a Marine Corps boarding party on the Holt. The Holt would then proceed to go alongside the Mayaguez. It was estimated that these actions would take about 2 hours. Therefore, at about first light plus 2 hours, TacAir would deploy Riot Control Agents (RCA) against the Mayaguez, followed by the boarding of the Mayaguez from the Holt. Simultaneously with the TacAir RCA attack on the Mayaguez, Air Force helos were to insert the Marine Corps assault force on Koh Tang with TacAir support provided as required. The Wilson would provide NGFS as requested by the Airborne Command and Control Center (ABCCC); the Coral Sea would provide TacAir as tasked by ComUSSAG/7AF (reference 6).

At about the same time (1900G), a conference was held at Utapao between key Marine Corps and Air Force personnel (including ComUSSAG/7AF representatives). As a result of this conference, CTG 79.9 (at 2100G) proposed to ComUSSAG/7AF that simultaneous insertions from Air Force helos be conducted on the Mayaguez and Koh Tang at 0542G on 15 May (reference 7). ComUSSAG/7AF initially agreed with this concept, advising ComSeventhFlt (at 2215G) that this was his present plan and issuing an aircraft schedule at 2351G requiring a helo flow that would simultaneously insert Marine Corps units on Koh Tang and the Mayaguez at 0542G, 15 May (reference 8). At about midnight on 14 May, ComUSSAG/7AF directed, apparently by telephone, a change in plan to the forces at Utapao. The Marine Corps boarding party was to be inserted on the Holt. which would proceed alongside the Mayaguez (reference 9). The Holt would then transfer the boarding party to the Mayaguez. About midnight (0300G) on 15 May, ComUSSAG/7AF issued his plan for the recovery of the Mayaguez and the assault on Koh Tang (reference 3). In paragraph 1A, the plan directed that simultaneously with the assault on Koh Tang, Air Force helos would insert the boarding party on the Holt. In paragraph 1D (2), "Employment," the plan stated that Air Force helos would insert the boarding party directly on the Mayaguez. CinCPac DTG 142112Z (about the time the helos departed Utapao for Koh Tang) approved this plan with the direction that the wording of paragraph 1D (2) be changed to read that the boarding party would board the Mayaguez from the Holt.

The change at midnight to ComUSSAG/7AF's plan did not change the scheduled helo flow or timing. As a result, a concept that in the afternoon of 14 May included the near simultaneous assault of Koh Tang, the boarding of the Mayaguez, and an air strike against mainland targets became, in final form, the assault of Koh Tang followed approximately 1-1/2 to 1-3/4 hours later by the boarding of the Mayaguez and an air strike on mainland targets.

TACTICAL PLANNING

Koh Tang, about 30 n.mi. southwest of Kompong Som, is about 3-1/2 miles long and 1 mile wide at its widest point. No tactical maps of Koh Tang were available, nor were any photographs of Koh Tang available to CTG 79.9 on his arrival at Utapao on 14 May. The Air Force was requested by CTG 79.9 to provide photographs.

Six key members of BLT 2/9 (including the commanding officer) and the Command Group made a visual reconnaissance of the island from a U.S. Army aircraft on the afternoon of 14 May, arriving back at Utapao at 1830G. The reconnaissance aircraft was restricted to a 6,000-ft. minimum altitude over Koh Tang, apparently because of enemy fire.

The distance from Utapao to Koh Tang (see figure IV-1) required a roundtrip time of 3-1/2 hours by helicopter, resulting in an estimated 4-hour cycle time. Air Force estimates of helicopter availability for the early morning of 15 May varied between 10 and 12 (11 were actually available for the first wave). Of those, 3 were required to insert the boarding party on the Holt. The first wave assault elements of BLT 2/9 on Koh Tang were restricted to about 160-180 personnel by helicopter availability (maximum of 8 helos). If all 11 helicopters of the first wave were available for the second wave, about 240 personnel could be inserted in the second wave, 4 hours after the initial assault elements of the first wave.

Figure IV-2 is an outline of Koh Tang drawn from a photograph of the island. Referring to the figure, the only group of buildings on the island was located on the north end, near the beach area designated as the eastern landing zone. A man-made cut in the jungle foliage connected this area to the western side of the island. The remainder of the island consisted of dense tropical foliage with varying widths of beach area at the ocean edges. It was thought that if the crew was on the island, they would probably be in the buildings on the north end.

ENEMY FORCE ESTIMATES

ComIPac's message 132144Z May provided his estimate of Khmer Communist (KC) forces on Koh Tang. There were 18-20 Force Armee Nationale Khmer (FANK) personnel reported on the island after the fall of the Cambodian government on 17 April. It was believed that the KC 3rd Division in the Kompong Som area had sent small units to secure islands off the Cambodian coast. ComIPac, therefore, estimated that 1 KC Co. (90-100 men), reinforced with a heavy weapons squad, was on the island. The estimated weapons of such a squad were one 82-mm. mortar, one 75-mm. recoilless rifle, two 30-caliber machine guns, one 12.7-mm. machine gun, and two B40/41 rocket grenade launchers. Five small boats were also reported in the area: 2 PCF patrol boats (one 82-mm. mortar, three 50-caliber machine guns); 1 PBR (three 50-caliber machine guns, one 40-mm. grenade launcher); and 2 unidentified armed boats (one 60 ft., one 70 ft.) (reference 10). Reference 2 reports that Defense officials stated that the ComIPac estimate was communicated to ComUSSAG/7AF in verbal and written form. Reference 2 also stated that it appeared that ComIPac's enemy force estimates were received by ComUSSAG/7AF about 5-6 hours before the assault by U.S. forces.

ComIPac reported that on 13 and 14 May, U.S. aircraft were receiving sporadic automatic weapons fire from Koh Tang, the Mayaguez, and small boats in the area.

KOH TANG

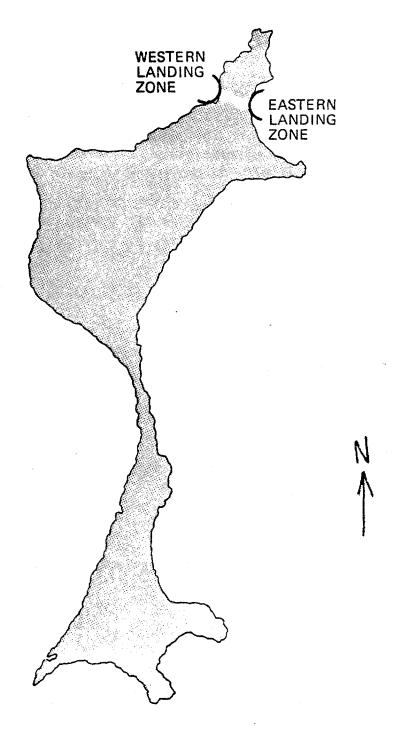


FIG. IV-2: KOH TANG

The Defense Intelligence Agency (DIA) estimated possibly a 150-200 man KC force on Koh Tang (references 2 and 11). The Marine units at Utapao received Air Force intelligence estimates of 20-40 "irregulars" on the island, and that little or no opposition was expected. CTG 79.9 was not a recipient of the ComIPac or DIA estimates of enemy strength (references 12 and 13). The reason for the disparity between Air Force estimates at Utapao and ComIPac/DIA estimates, or why ComIPac/DIA estimates were not available to CTG 79.9, is not known.

Helicopter Assault Plans

Subsequent to the visual aerial reconnaissance of Koh Tang in the afternoon of 14 May, Marine unit commanders at Utapao formulated the assault plan. AF helos were to insert Co. G, BLT 2/9, plus attachments and the Assault Command Group (CTU 79.9.1). into a landing zone in the middle of the cut between the areas marked eastern landing zone and western landing zone in figure IV-2. One platoon would search for the Mayaguez crew to the west, one platoon would search to the east, and one platoon would be held in reserve. Later that night, apparently after examining photographs, Air Force personnel informed CTG 79.9 that the Air Force helos were unable to land in the area previously selected and that CTG 79.9 was to use the areas marked on figure IV-2 as the landing zones. Accordingly, assault plans were redrawn. The final plan consisted of a platoon, embarked in 2 helicopters, landing in the western landing zone (figure IV-2), and acting as a blocking force. The bulk of the assault force would land in 6 helicopters in the eastern landing zone (reference 13). Western landing zones were numbered 1 and 2 from north to south; eastern landing zones from 3 through 8 from north to south. Simultaneously with the landings on Koh Tang, 3 Air Force helicopters would place the boarding party on the Holt, 12 n.mi. northwest of Koh Tang. The Holt would then proceed alongside the Mayaguez.

COMMAND CONTROL (C²)

As far as our research was able to ascertain, a message was <u>not</u> issued either by the JCS or CinCPac that directly assigned responsibility for the conduct of the Mayaguez operation. Apparently, responsibility was assigned by voice communication, with subsequent messages relating to command and control reflecting this assignment of responsibility.

Table IV-2 lists, in order of occurrence by local (G) time, abstracts from pertinent messages relating to command and control. About midnight on 13 May, ComUSSAG/7AF issued a Special Supplemental Instruction (SSI) for the insertion on the Mayaguez of Air Force security police at sunrise on 14 May. In this SSI, ComUSSAG/7AF was to maintain complete command and control, acting under the direction of the National Military Command Center (NMCC). At about the same time, ComSeventhFlt directed Navy/Marine Corps units assigned to the Mayaguez operation to plan on operating in support of ComUSSAG/7AF. Three hours later, CinCPac approved ComUSSAG/7AF's SSI of 131748Z with two

Local date and time (G) Gulf of Thailand	Abstract relating to Command and Control	Originator and Date, Time Group of message
14 May		
0048G	Airborne Mission Commander (AMC) in the Airborne Command and Control Center (ABCCC) will be focal point for control of all operations.	ComUSSAG/7AF 131348Z Special Supplemental Instruction (SSI)
	The AMC will control the mission as directed by ComUSSAG/7AF.	
	Complete command and control must be maintained by ComUSSAG/7AF who will be acting under direction from the National Military Command Center (NMCC).	
0157	CinCPacF1t directs ComSeventhF1t units assigned to Mayaguez operations to plan on operating in support of ComUSSAG/7AF, direct liaison authorized.	CinCPacFlt 1318572
0310	ComSeventhFlt passes above (operate in support of ComUSSAG) to 7th Fleet units	ComSeventhFlt 132010Z
0321	ComUSSAG/7AF issues new instructions (SSI) and cancels his 131748Z.	ComUSSAG/7AF 142021Z
0351	CinCPac directs ComUSSAG/7AF to modify his 1317482. Change "USAF Security Police" to read "USMC GSF personnel."	CinCPac 1320512

Local date and time (G) Gulf of Thailand	Abstract relating to Command and Control	Originator and Date, Time Group of message
14 May (cont'd)	·	
·	Change C ² sentence to read "Command and Control will be maintained by CinCPac who will be acting under direction from JCS (NMCC)."	
about 0915	CTG 79.9 at Utapao reports to ComUSSAG/7AF by Telecom.	FASU Utapao 1404237
1126	CTG 79.9 (Senior Marine at Utapao) assumes operational control of BLT 2/9 and D Co. (-) (Rein), and BLT 1/4, for contingency operations as directed by CinCPac and ComUSSAG/7AF.	CTF 79 140426Z and CTG 79.9 140838Z
1415G	CTG 79.9 receives mission from ComUSSAG/7AF by telephone.	CTG 79.9 151138Z
1450G	CinCPac directs ComUSSAG/7AF to seize Koh Tang and to designate Marine GSF to embark the Holt.	CinCPac 140750Z
1514G	CinCPac directs ComUSSAG/7AF to provide TacAir tasking to the Coral Sea and arrival time of boarding party to the Holt.	CinCPac 140814Z
1954	CinCPacFlt expects ComUSSAG/7AF to set assault time, Riot Control Agent (RCA) employment, helo flow TacAir schedule in coordination with Marine assault force commands, CTF 77 and ComDesRon 23.	CinCPacFlt 141254Z

TABLE IV-2 (Cont'd)

Local date and time (G) Gulf of Thailand	Abstract relating to Command and Control	Originator and Date, Time Group of Message			
14 May (cont'd)					
2100	CTG 79.9 provides a concept of operations to ComUSSAG/7AF.	CTG 79.9 1414002			
15 May					
0030	ComUSSAG/7AF issues plans tasking Air Force, Navy, and Marine elements. Overall conduct responsibility of NMCC with ComUSSAG as on-scene commander.	ComUSSAG/7AF 141730Z			
	7AF TACC will be focal point for all mission-related activities. In the target area, ABCCC will coordinate strike activities and receive his direction from ComUSSAG/7AF.				
	ComUSSAG/7AF is the central coordinating authority for this operational plan $(OP1an)$				
	During operations, elements in the target area will coordinate with ComUSSAG through AMC in ABCCC.				
0357	ComUSSAG/7AF verbally orders CTG 79.9 to execute plan.	CTG 79.9 151138Z			
0410	ComUSSAG/7AF verbally orders, through ABCCC, ComDesRon 23 to execute plan.	ComDesRon 23			

TABLE IV-2 (Cont'd)

Local date and time (G) Gulf of Thailand	and time (G) Gulf of Abstract relating to		
15 May (cont'd)			
0412	CinCPac approves ComUSSAG/7AF plan of 141730Z subject to 1) Board the Mayaguez from the Holt and 2) Use of B52s as directed by JCS.	CinCPac 142112Z	
0442	JCS orders CinCPac to execute operation.	JCS 142142Z	
0626	ComSeventhFlt directs CTF 77 and CTG 79.9 to respond to directions and tasking of ComUSSAG/7AF.	ComSeventhFlt 142326Z	

changes: 1) change "USAF Security Police" to "USMC GSF¹ Personnel" and 2) "Command and Control will be maintained by CinCPac who will be acting under direction of JCS (NMCC)." Apparently, the two CinCPac changes given above were communicated by voice, since ComUSSAG/7AF issued a new SSI with a DTG 30 minutes earlier than the CinCPac approval message that included the two CinCPac changes and canceled ComUSSAG/7AF's SSI of 131748Z.

Throughout 14 May, Navy and Marine commands looked to ComUSSAG/7AF for tasking. CTG 79.9 reported to ComUSSAG/7AF by telecom on his arrival at Utapao. CTG 79.9 was also directed by CTF 79 to conduct "contingency operations" as directed by CinCPac and ComUSSAG/7AF. Later on 14 May, CTG 79.9 received his mission (by phone) from ComUSSAG/7AF. On the same afternoon, CinCPac directed that ComUSSAG/7AF task Navy and Marine units. CinCPacFlt expected ComUSSAG/7AF to task and set the timing of various operations (CinCPacFlt 141254Z). Later, at about 2100G on 14 May, CTG 79.9 submitted his recommended concept of operations to ComUSSAG/7AF for approval.

The ComUSSAG/7AF plan (reference 3), issued about midnight on 14 May, tasked Air Force helicopters and TacAir and Marine Corps units at Utapao. The plan, reflecting the C² arrangements determined during 14 May, stated that overall conduct of the operation was the responsibility of the National Military Command Center (NMCC) with ComUSSAG as "on-scene commander." A subsequent paragraph in the plan stated ComUSSAG was the "central coordinating authority" for the operational plan (OPlan).

The Airborne Mission Commander (AMC) in the Airborne Command and Control Center (ABCCC) was designated in the plan as the focal point for all on-scene activities. ComUSSAG/7AF directed that all requests for action (on-scene) be addressed to the AMC who would validate requests through ComUSSAG/7AF in 7AF TACC.

Initial instructions to Seventh Fleet Navy and Marine units were to plan on operating "in support of" ComUSSAG/7AF. CTG 79.9 was later instructed to conduct contingency operations as directed by CinCPac and ComUSSAG/7AF, thus implying the control of CTG 79.9 units by CinCPac/ComUSSAG/7AF. Final instructions by ComSeventhFlt to CTF 77 and CTG 79.9 were to respond to directions and tasking of ComUSSAG/7AF, again implying control by ComUSSAG/7AF.

Missions and Communications

Table IV-3 lists the units and forces involved in the operation on 15 May and their missions and/or directions from ComUSSAG/7AF, as derived from various messages (basically references 3 and 8).

Figure IV-3 is a diagram, based on the above discussion, of the ${\rm C}^2$ arrangements as the operation commenced and progressed during 15 May. The Coral Sea VA strike

Ground Security Force.

TABLE IV-3

MISSIONS/DIRECTIONS TO UNITS/FORCES BY COMUSSAG/7AF

Units/Forces	Missions and/ or directives	Assigned forces (or types of forces)
CTG 79.9	Occupy Koh Tang Search for and release the crew of	BLT 2/9
	the Mayaguez Board and seize the Mayaguez; release crew	Co. D (-) (Rein), BLT 1/4
CTU 79.9.1 Koh Tang assault force	Occupy Koh Tang Search for and release the crew of the Mayaguez.	Elements BLT 2/9 3 USA linguists
CTU 79.9.2	Board (from the Holt) and seize the Mayaguez; release crew.	Elements Co. D (-) (Rein) 6 MSC personnel 2 AF EOD personnel 1 USA linguist
ComDesRon 23	The Holt provide escort for the Mayaguez	The Harold E. Holt
	Gunfire and search and rescue Support (SAR)	The Henry B. Wilson
	Naval Gunfire Support (NGFS) will be coordinated with TacAir Close Air Support (CAS) by ABCCC Stand by the Mayaguez	
CTF 77 (Navy TacAir)	Engage Cambodian shipping northeast of a specified line Conduct armed reconnaissance Be prepared to attack Kompong Som Provide Barrier Combat Air Patrol (BARCAP)	The Coral Sea with embarked Air Group 3 surface escorts

TABLE IV-3 (Cont'd)

Units/Forces	Missions and/ or directives	Assigned forces (or types of forces)		
USAF Helicopters	Insert assault force on Koh Tang including follow-on waves Insert boarding party on the Holt	CH-53 HH-53		
USAF TacAir	Provide CAS for Marine assault forces (including pre-assault strikes as required)	A-7, F-4, F-111, AC-130		
	Employ as directed by ABCCC			
USAF Supporting Air	Provide: ABCCC, SAR, tanker, photo coverage	EC-130, HC-130, KC-135, HH-53, RF-4C,		

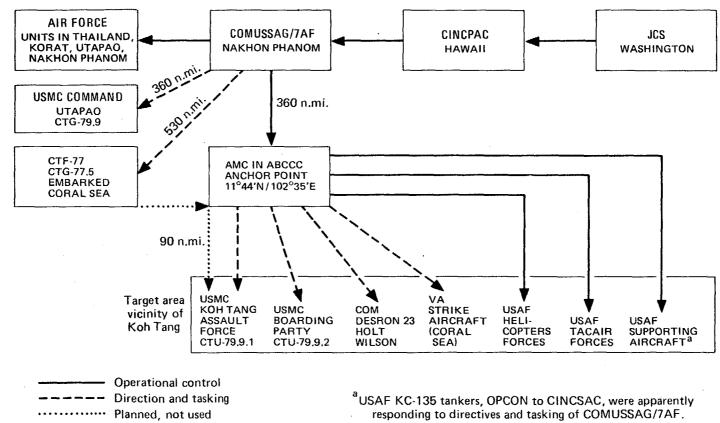


FIG. IV-3: COMMAND AND CONTROL (C2)

aircraft (A-7s and A-6s) are shown separately in figure IV-3. These aircraft, after launch from the Coral Sea, reported to the ABCCC for control. Not shown in figure IV-3, for simplicity, are the Coral Sea air defense aircraft (F-4s) controlled by a Coral Sea escort, the Gridley (a PIRAZ¹ ship), and photo, photo escort, and airborne early warning aircraft.

The communications arrangements made before the departure of the assault force from Utapao were that the assault force (CTU 79.9.1) would receive direction and tasking from CTG 79.9 (at Utapao) via the ABCCC (references 12 and 13). The assault force did establish communications with the ABCCC but the link between the ABCCC and Utapao was not established by the ABCCC.

It is not known whether the Air Force helicopters, TacAir, and supporting aircraft were given force designators. For example, the Air Force helicopter force referred to in table IV-3 and figure IV-3 was drawn from two squadrons: 7 CH-53s from the 21st Operation Squadron and 8 HH-53s from the 40th Aerospace Rescue and Recovery Squadron. The ComUSSAG plan (reference 3) does not refer to a designated force per se. The ComUSSAG/7AF aircraft schedule (reference 8) lists the Air Force helicopters and TacAir by flights and parent squadrons. A flight consisted of 2, 3, or 4 aircraft. The aggregate of flights is therefore referred to as "USAF helicopter forces" (meaning those Air Force helicopters at Koh Tang), "USAF TacAir forces," and USAF supporting air forces," each force consisting of the types of aircraft shown in table IV-3.

Communications are, of course, essential to the C² function, both for the commander to exercise authority and direction over his assigned forces and for his forces to provide the commander with reports and information on which the commander can base his directions. Table IV-4 is a matrix of those units and forces shown in figure IV-3, with "X" designating voice communications between two units or forces. Table IV-4 shows Com-USSAG/7AF and ABCCC in one column and the Marine Corps boarding party (CTU 79.9.2) grouped with ComDesRon 23, the Holt, and the Wilson. An "X" does not necessarily mean continuous communication between two units or forces, although this could be the case. An "X" means that the communications capability existed and was used at least during a part of the operation.

From figure IV-3 and table IV-4, the following points are made:

- (1) The units or forces in the vicinity of Koh Tang were in a chain of command from ComUSSAG/7AF to AMC to the unit or force. This is true because of command directions and because of the communications.
- (2) The next senior commander of the units or forces involved was eliminated from the chain of command when those units or forces proceeded to Koh Tang.

¹PIRAZ: Positive Identification Radar Advisory Zone.

TABLE IV-4

TACTICAL COMMUNICATIONS BETWEEN UNITS/FORCES

	ComUSSAG/7AF	ABCCC	USMC command Utapao	USMC Koh Tang assault force	CTF-77 (Coral Sea)	the Holt, the Wilson, boarding party	USN VA aircraft	USAF helicopter flights	USAF TACAIR flights	USAF supporting aircraft	
COMUSSAG/7AF	-	х	χª								
ABCCC	x	-		Х	X	X	X	X	X	X	
USMC Command Utapao	χ ^a		-								
USMC Koh Tang Assault Force		X		-				x	x	x	
CTF 77 (The Coral Sea)		Х		•	-	X	X	X			
ComDesRon 23, The Holt, the Wilson, boarding party		X			x	- •		. x	x		
USN VA aircraft		X			X		-				
USAF helicopter flights		X		Х	X	X		•	X	X	
USAF TacAir flights		X		X	•	х		X	-	X	
USAF supporting aircraft		X		х		•		X	X	•	
· · · · · · · · · · · · · · · · · · ·											

^aVia telephone.

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For example, CTG 79.9, because of the C² arrangement and communication, became essentially an advisor to ComUSSAG/7AF, relying on information from ComUSSAG/7AF for his knowledge of operations at Koh Tang.

- (3) All information from and directions to units or forces at Koh Tang was to flow through the AMC in the ABCCC. The AMC, as directed by Com-USSAG/7AF, controlled the functions of helicopter assault, subsequent ground operations, air strikes of mainland targets, air support by Air Force TacAir, NGFS, and Search and Rescue (SAR).
- (4) Command and control of individual flights (planned as 2, 3, or 4 aircraft) of Air Force helicopters, TacAir, and supporting aircraft was through the AMC. Although not included in the ComUSSAG/7AF plan or aircraft schedule, individual Air Force TacAir pilots were designated as "on-scene" commanders as the operation progressed. (This aspect of the operation is discussed in section VI.)
- (5) ComUSSAG/7AF's aircraft schedule for 15 May (reference 8) assigned the ABCCC an orbit anchor point, as shown in figure IV-1, of about 90 n.mi. from Koh Tang.
- (6) Because of the distance from Koh Tang to the ABCCC, the AMC had to rely solely on voice reports, either direct from the units and forces or relayed by some means not designated before the operation, for his picture of understanding of events in the vicinity of the target area.

SECTION V

ASSAULT ON KOH TANG AND RECOVERY OF THE MAYAGUEZ

INTRODUCTION

This section describes the assault on Koh Tang and recovery of the Mayaguez. A detailed examination of the movements of Air Force helicopters supporting the assault is contained in appendix B. The uncertainty relating to the helicopter first wave insertion times are also examined in appendix B.

AIR FORCE HELICOPTERS

Two models of the H-53 helicopter participated in the assault of Koh Tang and the recovery of the Mayaguez. One was the CH-53 with, normally, the primary mission of passenger and cargo lift. These helicopters, from the 21st Special Operation Squadron, were designated by the call sign of Knife (K). The other type of helicopter was the HH-53 with, normally, the primary mission of Search and Rescue (SAR). These helicopters, from the 40th Aerospace Rescue and Recovery Squadron, were designated by the call sign Jolly Green (JG). The HH-53 has an aerial refueling capability; the CH-53 does not.

A total of 16 Air Force helos were deployed to Utapao before or on 15 May for the subject operation. One crashed on the night of 13 May while enroute from Nakhom Phanom; 4 crewmen and 19 Air Force security police were lost. Of the 15 helos arriving at Utapao, one did not participate in the operations on 15 May (apparently because of mechanical problems); one (K-51) was down with mechanical problems until 0720G; one (K-52) arrived at 0400G, too late to participate in the first wave; and one (JG-44) arrived at an unknown time and did not participate in the first or second wave. Thus, 11 Air Force helos (6 HH-53s, 5 CH-53s) comprised the first wave (reference 9).

HELICOPTER ASSAULT PLANS

On 15 May, the ComUSSAG/7AF aircraft schedule for helicopter and TacAir forces (reference 8) called for 3 helos to insert a 60-man Ground Security Force (GSF) on the Mayaguez at 142242Z (0542G), while at the same time calling for 9 helos to insert a GSF on Koh Tang. A second wave of 12 helicopters was scheduled between 1015 and 1045G, and two subsequent waves of 12 helicopters were scheduled at 1445 and 1915G, respectively.

Final briefings for the first wave were given commencing about 0200G on 15 May. The order for the assault and recovery of the Mayaguez was received verbally from ComUSSAG/7AF at 0356G; the 11 helos departed Utapao between 0414G and 0425G (references 9 and 14). The first 3 helos (HH-53s) carried the boarding party of 68 personnel: 59 from Co.D, BLT 1/4, 6 from the MSC, 2 Air Force EOD, and 1 U.S. Army linguist. The remaining 8 helos (5 CH-53s, 3 HH-53s) carried 177 BLT 2/9

personnel, plus 3 Army linguists. As outlined earlier, the plan was to insert the boarding party on the Holt and simultaneously insert the assault force on Koh Tang, with 2 helos deploying to the western landing zones and 6 to the eastern landing zones. As documented in subsequent sections, the plan did not include pre-assault air strikes, naval gunfire, or helo's escort by aircraft capable of supplying responsive, suppressive fire in or near the landing zones. Such aircraft (AC-130 and OV-10) were available in Thailand. Air Force TacAir were overhead and the ABCCC aircraft was on station.

RECOVERY OF THE MAYAGUEZ

The 3 HH-53 helos ([G-11, [G-12, and [G-13) inserted the boarding party on the Holt between 0550G and 0624G. The Holt, on "helo operations" station at 0445G, was approximately 12 n.mi. NW of Koh Tang. (The Mayaguez was anchored about 1 n.mi. NE of the island.) The Holt then proceeded to approach the Mayaguez. A flight of Air Force A-7Ds dropped CBU-30 RCAs on the Mayaguez between 0710 and 0716G. U.S. Marines then boarded the Mayaguez at 0725G without resistance. A search of the ship revealed no personnel aboard, and the Mayaguez was declared secure at 0822G. At 0950G, while 19 Marines remained on board the Mayaguez, 38 Marines and 2 U.S. Navy Corpsmen returned to the Holt for possible insertion on Koh Tang (CTU 79.9.2 160837Z May). However, they were not subsequently inserted on Koh Tang. At 1020G, the Holt cast off, and began towing the Mayaguez (CTU 79.9.2 160837Z May). At 1005G, the Mayaguez crew was recovered from a small Thai boat by the Henry B. Wilson¹, and were transferred to the Mayaguez at 1300G. At 1545G, the Holt cast off the towing rig and escorted the Mayaguez, which was now under her own power. At 1615G, the Holt was directed to join the Wilson (at Koh Tang) as soon as possible. At 1700G, the Mayaguez was in international waters; Holt departed for Koh Tang and arrived about 1730G (reference 15 and CTU 79.9.2 160832Z May).

FIRST WAVE

For each Air Force helicopter, table V-1 lists (by call sign) the insertion time, as reconstructed in this study, and landing zone, the number of troops inserted, and remarks applicable to each helicopter.

The times shown in table V-1 are developed from the analysis in appendix B. Uncertainties associated with the times are discussed in appendix B, e.g., as discussed in appendix B, 3 helos (K-32, JG-42, and JG-43) may have inserted as late at 0650-0710G instead of 0615-0630G as shown in table V-1.

¹The Wilson arrived in the area, 4 n.mi. east of Koh Tang at 0718G on 15 May (reference 15).

TABLE V-1
FIRST WAVE HELICOPTER INSERTION OF ELEMENTS OF ACBLT 2/9

Helo			Insertion	1				
call sign	USMC passengers ^a	Time (G)	Zone	Number inserted	Remarks			
K-21	20	0600	Western	20	Ditched about 0614 after insertion; 3 AF crew recovered by K-32. 1 missing-in-action (MIA).			
K-22	20	-	Western	0	Damaged. Aborted. Forced landing on coast of Thailand.			
K-31	22	- -	Eastern	0	Shot down about 0600/05; 13 survivors (10 USMC, 3 AF); 13 lost (10 USMC, 2 Navy, 1 AF).			
K-23	20	0600/05	Eastern	20	Shot down in hover over zone. 20 USMC and 5 AF crewmen on Koh Tang.			
K-32 ^b	. 15	0615/20	Western	13	1 AF, 1 USMC WIA in hover. 1 US Army did not offload. Damaged. Down on return to Utapao.			
JG-42 ^b	27	0620/30	Western	27	Damaged. Down on return to Utapao.			
JG-43 ^b	29	0625/30	Western (1200 meter south)	29 s	Assault Command Group aboard.			
JG-41	27	0900	Western		Damaged about 1000 while trying to offload remaining 5 troops. Down on return to Utapao.			
Total	180			131	•			

^aIncludes 3 USA personnel.

b See annex B for a discussion of these times.

The assault on Koh Tang commenced about 0600G with the helicopters in the first wave approaching the landing zones: 2 (K-21 and K-22) to the western and 3 (K-31, K-23, and K-32) to the eastern landing zone. The remaining 3 (JG-41, JG-42, and JG-43) followed behind the 3 helos approaching the eastern LZ. Within about 5 or 10 minutes, perhaps less, 2 (K-31 and K-23) had been shot down in or near the eastern landing zone and 1 (K-21) had been severely damaged in the western landing zone. This helicopter, after offloading troops, ditched about three-quarters of a mile off shore. Fourteen passengers and crew members were lost in the crashes (13 in K-31; 1 in K-21).

One helo (K-22) was forced to abort without offloading troops because of damage received before 0630G. Two others (K-32 and JG-42) received major damage (between 0615G and 0630G) while offloading troops. One (JG-43) inserted its troops, including the Assault Command Group (CTU 79.9.1), 1,200 meters south of the western landing zone. Another (JG-41), on its fifth insertion attempt about 0900G, offloaded 22 of its 27 Marines in the western landing zone. This helo received damage about 1000G while attempting to offload the remaining 5 troops and pick up WIA.

Figure V-1, based on table V-1, shows the ground situation as of about 0630G: 109 Marines plus 5 Air Force crew were on Koh Tang in three different locations, and 13 survivors (10 USMC, 3 AF) from K-31 were in the water off the eastern landing zone. JG-41 was orbiting with its 27 Marines.

As is shown in table V-1, of the 8 helos comprising the first wave assault on Koh Tang, 3 were lost to enemy action and 1 (K-22) was forced to land in Thailand (about $12^{\rm o}$ $20'{\rm N}_{\circ}/102^{\rm o}$ $10'{\rm E})$. Another 3 received battle damage to the extent that after returning to Utapao, they were unable to participate in further operations for the day. Only the eighth helo (JG-43) was able to continue operations.

One helo that inserted on the Holt (JG-13) suffered battle damage about 0810G during a rescue attempt of K-23 personnel in the eastern landing zone. Of the 8 helos participating in the first wave assault on Koh Tang and the 3 helos inserting on the Holt, 3 were available for the second wave (JG-11, JG-12, and JG-43). Of the 9 helos exposed to fire, 8 (89 percent) were either lost or suffered damage to the extent they were not available for subsequent operations. Of the same 9 helos, 2 (JG-13 and K-22) made forced landings in Thailand while attempting to return to base and 3 were lost.

Of the 180 personnel in the first wave of the assault on Koh Tang, 131 were inserted at three locations over a 3-hour time span. This compares to the plan to insert 180 personnel at two locations within roughly 10 minutes. The breakdown of the 49 personnel (27 percent of the first wave assault force) that were not inserted is:

- 20 On K-22; aborted -- forced landing Thailand coast.
- 22 On K-31; crashed in water (10 Marines plus 3 Air Force crew subsequently picked up by the Wilson).

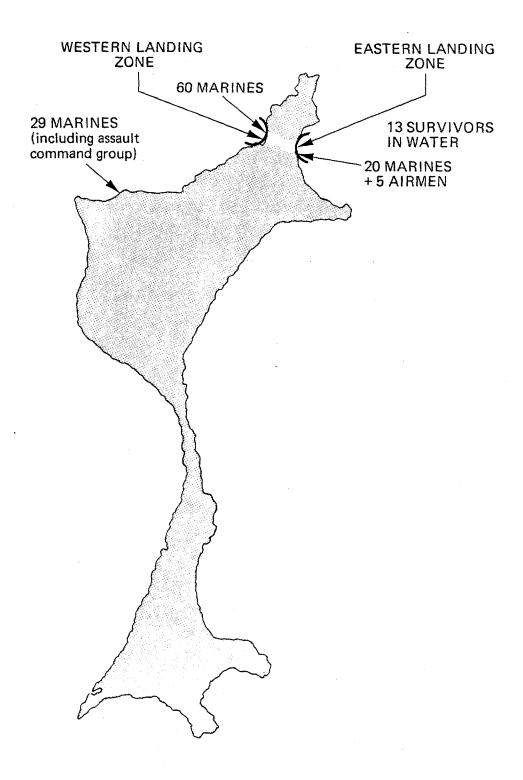


FIG. V-1: SITUATION ABOUT 0630

- 2 On K-32 (1 WIA in hover, 1 U.S. Army did not disembark).
- 5 On JG-41; unsuccessful insertion attempt following the offloading of 22 earlier.

49 Total not inserted

Of about 17 insertion attempts, 6 succeeded in offloading troops.

GROUND COMBAT

During the first 15-20 minutes into the first wave assault, there were 20 Marines on each side of Koh Tang. The 20 (3rd platoon, Co. G, BLT 2/9) in the eastern landing zone dug in along the tree line and held that position until extracted at 1815G. One Air Force crewman was wounded as the passengers and crew ran for the tree line after their helicopter crashed in the landing zone. One Marine was wounded later in the day. As reported by reference 12, there was automatic weapons fire from emplacements north and south of their position. The fire was particularly intense when helicopters approached.

The 20 Marines in the western landing zone were joined by an additional 40 between 0615G and 0630G. About 0630G, the Assault Command Group was inserted south of the western landing zone. By about 0630G, there were two groups in the western side: one of 60 men, and one of 29 men, separated by about 1,200 meters (see figure V-1). The 60-man force in the western landing zone established a defensive perimeter on the beach, in a half-circle shape, some 100 meters deep, with their backs to the water (references 12 and 13).

After insertion, the Assault Command Group to the south started moving north to link up with the force in the western landing zone. As they advanced north, the Command Group encountered opposition from enemy log and earthen bunkers and fighting holes, apparently manned by from 2-4 personnel each. Between 0700 and 0800G, a patrol was sent south from the western landing zone to make contact with the Command Group. The patrol encountered a heavy pocket of enemy resistance, resulting in 1 Marine killed and several wounded. This encounter temporarily slowed the attempts to expand to the south. About 0900G, 22 Marines (on JG-41) were inserted in the western landing zone. Reference 12(d) notes that the additional personnel were badly needed as the situation was critical at the time.

The Assault Command Group continued to fight its way north, engaging the enemy bunkers one by one until a linkup was made just south of the western landing zone about 1245G. References 12 and 13 report that the bunkers showed evidence of very recent construction or repair.

The ground fighting in the western landing zone is described in reference 12 as intense and close. Both sides were exchanging hand grenades "by the dozen." Cambodian forces with automatic weapons ringed the western landing zone from north to south. After the arrival of the second wave assault forces and subsequent linkup, enemy activity decreased substantially.

SECOND WAVE

Table V-2 lists for each Air Force helicopter in the second wave the insertion times and landing zone, the number inserted, and the number of wounded evacuated.

The second wave was composed of 5 helos: 1 (JG-43) from the first wave assault on Koh Tang; 2 (JG-11 and JG-12) from the insertion on the Holt; 1 (K-51) at Utapao previously down with mechanical problems; and 1 (K-52) at Utapao that arrived on 15 May, too late for the first wave. The 5 helos are estimated to have arrived in the Koh Tang area between 1115G and 1155G, with a total of 127 troops for insertion. Second wave insertion commenced about 1200G, with 2 helos (JG-11 and JG-12) inserting 53 troops in the western landing zone.

Shortly thereafter, about 1210G, 3 helos (JG-43(42)¹, K-51, and K-52) attempted to insert in the eastern landing zone. Enemy fire caused the 3 helos to abort the run. K-52, which was following JG-43(42) and K-51, received damage (including a bullet hole in a fuel tank) and, losing fuel, proceeded to return to base via the Thailand coast. Subsequently, K-52 made a forced landing near the location of K-22, which was down in Thailand from the first wave. JG-43(42) and K-51, after their aborted run on the eastern landing zone, inserted 47 troops at an estimated time of 1215-30G in the western landing zone. K-51 and JG-12 returned to Utapao via the Thai coast location of the two downed aircraft; JG-11 and JG-43(42) remained in the Koh Tang area.

The second wave inserted 1 hour and 45 minutes after the planned second wave insertion, and 6 hours after the first wave commenced insertion at 0600G. Of the 127 troops embarked in the second wave, 100 were offloaded. The remaining 27 (21 percent of the second wave assault force) were on K-52. The second wave insertion of 4 helos took approximately 15-30 minutes. There were four successful insertions and three unsuccessful attempts. In the second wave, 6 of the wounded were evacuated to Utapao (1 on JG-12 and 5 on K-51). Of the 5 helos in the second wave, 4 were able to participate in subsequent operations.

Second wave reinforcements arrived between 1200G and 1230G; the western landing zone linkup occurred about the same time or shortly thereafter, bringing the total force in the western landing zone and vicinity to 205 personnel (including the wounded who were not evacuated and the 1 killed). The defense perimeter was deepened to about 250 meters

JG-43 on return to Utapao from the first wave took the call sign of JG-42. This helo is referred to as JG-43(42) in this study.

TABLE V-2
HELICOPTER INSERTION OF SECOND WAVE

Helo	USMC	Insertion			Wounded in			
call sign	passengers (PAX)	Time (G)	Zone	Number inserted	action (WIA) evacuated	Remarks		
JG-11	27	1200	Western	27	0			
JG-12	26	1200	Western	26	1			
JG-43(42	2) ^a 28	1215/30	Western	28	0			
K-51	19	1215/30	Western	19	5	Marines on K-51 were on K-22, first wave.		
K-52	27		-	. 0	0	Damaged; aborted; landed on coast of Thailand.		
Total	127 ^b			100	6			
IULAI	A 44 /			100	J			

^aJG-43 on return to Utapao assumed call of JG-42. This helicopter is referred to as JG-43(42).

bActual number of participants is 288: 307 - 19 from first wave who offloaded on second wave.

and consolidated. Personnel in the second wave informed the Assault Command Group that they had heard that the crew of the Mayaguez had been rescued, a fact the Command Group was not aware of. In the afternoon, contingency plans were made to: 1) stay for the night; 2) evacuate by helicopter; or 3) evacuate by small boats dispatched from the Holt and the Wilson. In anticipation of staying overnight, supplies and ammunition were requested to ABCCC (Cricket).

DECISION TO INSERT REINFORCEMENTS (SECOND WAVE)

Of the 5 helos in the second wave, 2 departed Utapao about 0930G, 2 about 1000G, and 1 about 1010G. Based on a 105-minute enroute time, the 5 helos should have arrived at Koh Tang between 1115 and 1155G.

Reference 11 states that CinCPac, at 1032G, verbally authorized the helo flow to be held up so that suppressive TacAir support could be provided. An A-7D OpRep-4 (388 TFW 151200Z) states that the helo landings were stopped. No time is given, but it would appear to be in mid-morning.

ComUSSAG/7AF Situation Report (SitRep) number 43 as of 1035G (ComUSSAG/7AF 150400Z) states that he was presently attempting to insert additional Marines and that preparation was being made to posture the Marines "in order that heavy suppressive artillery and air support may be initiated."

The Assault Ground Commander at Koh Tang recalls that he was told about 1000 or 1030 by the ABCCC, in response to his earlier requests for information as to when the second wave would arrive (originally scheduled for 1015G), that the second wave would not be inserted (reference 13).

It appears that an order was issued to stop the helo landings about 1030-1045G, although this does not agree with the ComUSSAG/7AF Sit Rep 43 stating he was (as of 1035G) attempting to insert additional Marines. It should be noted that at 1035G there were no helos at Koh Tang. The first 2 helos of the second wave were still some 35-40 minutes from Koh Tang. It is possible that the ABCCC was referring to the order to stop the helo landings when he informed the Ground Commander that the second wave would not be landed. The Assault Ground Commander did not receive any directions or guidance concerning the positioning of his force to enable suppressive fire to be brought to bear as implied by SitRep 43 (reference 13).

Reference 2 reports that between 1110G and 1120G (after the Mayaguez crew had been recovered), CinCPac was verbally told by the JCS that there was no further need to keep the Marines on the island and to prepare an extraction plan. At this time it was also reported (apparently by ComUSSAG/7AF) that the Marines were in a good position with the opposition pushed back (references 2 and 11). ComUSSAG/7AF was directed not to land additional Marines on the island. At 1155G, the JCS (JCS 150455Z) issued directions to

cease all offensive operations and withdraw all forces in the operating area consistent with safety and self defense. An order was given to the helos (via the ABCCC) by ComUSSAG/7AF to return to base without offloading the second wave. The time of this order is not certain, but it appears to have been after 1120G and before 1200G.

The report, shortly after 1100G, of the Marines being in good position is contrary to the situation as seen by the ground force. The Assault Ground Commander had repeatedly asked the ABCCC about reinforcements. The senior Marine in the western landing zone location during the morning (Executive Officer, Co. G, BLT 2/9) was also requesting reinforcements. He was told by the ABCCC, apparently shortly before 1200G, that reinforcements were on hand, but they would not be inserted unless the landing zone was secure. He was then told that the reinforcements were returning to base. The Executive Officer, Co. G, replied they would be in trouble if the reinforcements did return to base, and he declared the zone was neutralized (reference 12 (d)).

There were two major reasons for the need for reinforcements from the ground force viewpoint. The commander of the assault force on Koh Tang needed reinforcement since, to his knowledge, he still had the mission of searching for the crew of the Mayaguez. The Assault Command Group and Marines in the other locations had not been informed that the Mayaguez crew had been recovered by the Wilson at 1005G (reference 13). Furthermore, as seen by the force in the western landing zone, the situation was critical, and reinforcements were needed because of pressure from the enemy (reference 12 (d)).

The acting CG, FMFPac (in Hawaii) and CTG 79.9 at Utapao overheard the orders for the helos to return to base. Both knew the Mayaguez crew had been recovered, but neither knew that the ground force on Koh Tang was not aware of this fact. Both objected to the order on the grounds that reinforcements were needed now and to also assist in the extraction. The order to insert the second wave was given a few minutes thereafter, apparently by the JCS.

If the second wave had not been inserted, it would have been approximately 1600G before the 5 helicopters could have proceeded to Utapao, offloaded, and returned to Koh Tang for extraction. Less than 100 Marines (excluding the WIA and 1 KIA) would have been in the western landing zone for another 4 hours. An extraction attempt would have been in daylight, and if it would have failed, or partially failed, a small force probably would have had to remain overnight.

EXTRACTION FROM KOH TANG

Table V-3 lists by Air Force helicopter the extraction times and landing zone, the number extracted, and the ships on which the Marines were offloaded after extraction.

TABLE V-3
HELICOPTER EXTRACTION OF ELEMENTS OF ACBLT 2/9

Helo call	Time (G)	Landing zone	Number extracted	Off load	Remarks
JG-13	0810	Eastern	0	<u></u>	Received damage.
JG-43(42)	1415	Eastern	0	-	Received damage.
JG-11	1810 .	Eastern	20	Coral Sea	Received damage. 5 AF crew also extracted.
JG-12 ^a	1815	Eastern ·	0		Received damage.
K-51	1854	Western	44	Coral Sea	
JG-43(42)	1909	Western	54	Coral Sea	
J G-44	1910	Western	34	Holt	•
JG-44	1936	Western	40	Coral Sea	
K-51	2010	Western	29	Coral Sea	Received damage.
Total			221 ^b		

aJG-12 was checking the zone to ensure all personnel had been extracted.

b 231 inserted. (6 WIA evacuated by second wave; 1 KIA; 3 MIA on Koh Tang)

As described earlier, a rescue attempt was made at 0810G or shortly thereafter, for personnel of K-23 in the eastern landing zone. The helo making the attempt received major damage. Another extraction attempt was made about 1415G. At that time, 2 helos were available at Koh Tang (JG-43(42) and JG-11). This attempt was also unsuccessful and resulted in battle damage to JG-43(42). The helo proceeded to the Coral Sea (about 90 miles away), escorted by JG-11. After this attempt, JG-11 was the only Air Force helo available in the area until repair of JG-43(42) was completed at about 1700G.

Three additional helos (JG-12, K-51, and JG-44) arrived in the area from Utapao between 1725G and 1800G. Successful extraction began at 1810G, with JG-11 extracting the passengers and crew of K-23 from the eastern landing zone to the Coral Sea, which at this time was about 10 n.mi. from Koh Tang. Four more extractions of 172 personnel from the western landing zone followed between about 1854G and 1936G (see table V-3). The final extraction of 29 personnel occurred at 2010/11G. As sunset was at 1822G, the extractions from the western landing zone were in near or total darkness. The last extraction required four attempts before the pickup was successful.

Of the 5 helos involved in the extraction commencing at 1810G, 1 (JG-12) received battle damage and 2 others (JG-11 and K-51) were reported with major battle damage at Utapao after the extraction (CinCPacAF 172340Z May). It is not clear when the damage was received. As no damage was reported as occurring to these 2 aircraft on the second wave, it is assumed that the damage was received during the extraction. It is also possible, but not clear in the reports, that JG-43(42) received some battle damage during the extraction, in addition to the damage received at 1415G.

Although plans were made for a helo extraction, no advance warning was given to the Assault Ground Commander to position his forces for an extraction. References 12(d), 12(e), and 13 report that at about 1900G, without advance warning, a helicopter (K-51) appeared low and fast, rounding the northern tip of the island. The pilot informed the Command Group that he and 4 other helicopters were coming in for extraction. Reference 12(c) reports that personnel in the eastern landing zone were also not warned of the extraction time.

KILLED IN ACTION 15 MAY

The number of men killed in action on 15 May is summarized below by service:

Service	<u>KIA</u>	Remarks
USMC	14	10 in K-31 crash - 4 in combat on island.
USN	2	in K-31 crash.
USAF	2	1 in K-31 crash - 1 in K-21 crash.
		R-ZI Clasii.

HELICOPTER APPROACH AND LANDING TACTICS

References 12 and 13 comment on the apparent lack of pilot training in helicopter assault tactics evidenced by the approach profile and landing in the landing zones. Approaches were straight-in on a line perpendicular to the beach. To land, a helicopter slowed to a hover 20-30 feet over the landing zone, rotated 180 degrees so that its nose pointed seaward, and then descended to the beach to discharge passengers.

Why Air Force helicopter pilots used this particular method of approach and landing is unknown. Reference 9, relating the experience of K-21, states: "they made a turn so that the tail of the aircraft was facing the island to make offloading the Marines easier." The comments in references 12 and 13 are in the opposite sense, i.e., that the helicopter approach and landing tactics did not enhance the assault but made it more difficult. Reference 12(f) refers to the approach as an "administrative" type of landing (as opposed to a vertical assault landing).

SUMMARY OF HELICOPTERS LOST/DAMAGED

Table V-4 lists the helicopters lost or damaged on 15 May. As shown in the table, 3 Air Force CH-53s were lost to enemy fire, all within a few minutes of the commencement of the initial assault about 0600G. Of the 14 helicopters that participated in the operation, 13 were lost or damaged. The one not receiving damage, JG-44, made no insertions but did make two extractions from the western landing zone.

Table V-5 summarizes the helicopter assault operations of 15 May. An average of 62 percent of those exposed to enemy fire were lost or damaged. If the JG-13 rescue attempt of K-23 personnel at about 0810G is included as part of the first wave, then 89 percent (8 out of the 9 helos exposed to fire) were lost or damaged. By comparison, the second wave had 1 helo damaged out of the 5 exposed. During the extraction commencing at 1810G, 2 of the 3 helos damaged (see table V-4) were in the eastern landing zone. The damage to the helicopter in the western landing zone apparently occurred when the last 29 personnel on Koh Tang were extracted at 2000G-2010G.

COMMUNICATIONS

Table V-6 shows the type of ground-to-air communication equipment with the first and second wave assault elements, how it was loaded, and what happened to it. Table V-7 lists by landing force group (including survivors of K-31 in the water) the ground-to-air communication means available after the group was inserted and with whom the group communicated. The "communication with" column is derived from references 9 and 12 and various OpRep-4 reports.

'TABLE V-4
HELICOPTERS LOST/DAMAGED
15 May

Helicopter			
call sign	Type	Lost or battle damage	Location when hit
		(approximate time, G)	
K-31	CH-53	Lost (0600)	Eastern zone
K-23	CH-53	Lost (0600)	Eastern zone
K-21	CH-53	Lost (0614)	Western zone - ditched about 3/4 mile off shore
K-22	CH-53	Damaged (0615)	Western zone - landed Thailand coast
K-32	CH-53	Damaged (0615/20)	Western zone
JG-42	HH-53	Damaged (0620/30)	Western zone
JG-13	нн-53	Damaged (0810)	Eastern zone rescue attempt
JG-41	HH-53	Damaged (1000)	Western zone
K-52	CH-53	Damaged (1215)	Eastern zone - landed Thailand coast
JG-43(42)	HH-53	Damaged (1415)	Eastern zone - extraction attempt
JG-11	HH-53	Damaged (1810)	Eastern zone - extraction
JG-12	HH-53	Damaged (1815)	Eastern zone - checking to insure all Eastern zone personnel extracted
K-51	CH-53	Damaged (2000)	Western zone - extrac- tion

TABLE V-5 SUMMARY OF HELO ASSAULT OPERATIONS 15 May

INSERTION

Event	Force embarked	Force inserted	Elapsed time for insertion	Number helos	Number helos lost	Number helos exposed to enemy fire	Number helos receiving battle damage (including lost)	Percent helos lost/damage to exposed
Insertion on the Holt	68	68	20 to 30 min.	3	0	1 ^a	1	100
First wave Koh Tang	180 ^b	131	3 hr. 0 min.	8	3	8	7	88
Second wave Koh Tang	<u>127</u> b	100	15 to 30 min.	_5	<u>o</u>	_ <u>5</u>	<u>1</u>	20
Total	375	299	6 ħr., 15-30 mi	n. 16	3	14	9	64
Total on Koh Tang		231				,		
				EXTRACTION Koh T				
Event	Force embarked	Force extracted	Elapsed time for extraction	Number helos	Number helos lost	Number helos exposed to enemy fire	Number helos receiving battle damage (including lost)	Percent helos damage to exposed
Attempt at 1415G	-	0	-	2	0	2	1	50
Extraction commencing 1810G	-	221 ^c	2 hr.	5	0	5	3	60

^aDuring rescue attempt of 25 personnel in eastern landing zone at about 0810G.

 $^{^{}m b}$ Of 307 embarked on first and second wave, Koh Tang, one helo team of 19 was embarked in both waves.

 $^{^{\}mathrm{c}}\mathrm{Six}$ in first wave were evacuated to Utapao by second wave. 1 KIA, 3 MIA not extracted.

Equipment	Approximate range Embarked (miles) helo		Remarks	
		First Wave		
PRC-41 UHF PRC-75 UHF PRC-25 VHF (FM)	50 10 3-5	K-31	Forward Air Controller (FAC) embarked, crashed short of beach, eastern LZ	
PRC-75 UHF PRC-77 VHF (FM)	10	JG-43	Air Liaison Officer (ALO) embarked, inserted 1200 meters south of western LZ. PRC-75 did not work or no one else was at that time up on the frequency	
		Second Wave		
PRC-25 VHF (FM) (TWO)	3-5	K-52	Forward Air Controller (FAC) embarked, aborted, forced landing in Thailand	

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TABLE V-7 .
GROUND-TO-AIR COMMUNICATIONS

Group	Communication means	Communication with ^a
In water off eastern LZ	UHF-survival radio	A-7D, helos, F-4,
On beach in eastern LZ	UHF-survival radio	A-7D, helos, AC-130, OV-10, F-4
Western LZ	VHF (FM)	A-7D, helos, AC-130, ABCCC, OV-10, Command Group
Command Group (1200 meters south of western LZ)	VHF (FM)	A-7D, helos, AC-130, ABCCC, western LZ group

From table V-7 it can be seen that the Marines in the eastern and western landing zones were unable to communicate directly with each other. However, each group had common points of contact throughout the day. The Assault Command Group and the Marines in the western landing zone could communicate with the ABCCC. The Marines in the eastern landing zone could communicate with aircraft overhead, who were in contact with the ABCCC. The Ground Commander, however, was not informed of the situation on the eastern side. He was aware that some friendly force might be on that side as he knew 2 helos had crashed there; but he did not know who or how many.

^aCommunication with designated aircraft was not necessarily on a sustained basis.

Reference 14 reports that the situation at Utapao became confused between 0615G and 0821G because of communications problems with the ABCCC and that he (CTG 79.9) was unable to determine exactly which helos were down or how many Marines had actually landed. References 12 and 13 state that although it was not known by the ground forces on Koh Tang at the time, communication plans with CTG 79.9 via the ABCCC were not followed. Assault force communications with ABCCC were not relayed directly to CTG 79.9 as planned.

SEARCH AND RESCUE (SAR)

A flight of 3 A-7s (Karen) reported radio contact between 0615G and 0715G with the eastern landing zone and also with survivors (from K-31) in the water (388-TFW 150230Z May). In an interview at Subic Bay on 21 May, the Marine Corps Forward Air Controller (FAC) (in K-31) related that after he was in the water, he had contact with a flight of 3 A-7s and called air strikes on the beach until the UHF survival radio went down. There was, however, no SAR effort directed toward the K-31 survivors. The SAR effort apparently was concentrated on the K-23 Marines and Air Force crewman on the beach.

The movements of the JG-13 helicopter between the time of the insertion of the boarding party on the Holt (completed about 0624G) and the attempted extraction of K-23 personnel in the eastern landing zone (about 0810G) were not available for this study. JG-13 must have remained in the area because of the short duration in time between those two events. Based on other accounts, JG-13 probably refueled from an airborne tanker during this interval. There is no mention of a search for, or pickup attempt of, the K-31 survivors until the Wilson picked them up between 0840G and 0933G. The Wilson was not informed that survivors were in the water but happened to see them as she maneuvered in the area (reference 16). The Wilson also was not informed that one Air Force crewman from K-21 was in the water on the western side of the island and was missing.

GROUND/TACTICAL AIR INTERFACE

On the ground, there was confusion as to what TacAir support was available and who commanded that support. In the air, there was confusion as to where ground forces were located.

The following paraphrases of excerpts from reference 12 and OpRep-4 reports illustrate the confusion relating to TacAir support:

• Three tactical nets (VHF) were assigned for BLT use: 1) a BLT tactical net; 2) a net for communications with ABCCC; and 3) a fire control net (CAS and NGFS). However, A-7s, helos, AC-130s, and ABCCC were all on the BLT tactical net, saturating the frequency, making it difficult for BLT tactical use, and creating a definite communications problem (Operations Officer, BLT 2/9).

- Control of TacAir support was complicated because of the frequent change in pilots. These new pilots had to be briefed on troop locations before each attack. Smoke grenades for marking positions by the ground force were quickly expended. Air panels were used, but were difficult to see from the air. One method of control used was to have the aircraft make dry runs until his line of attack was between the western LZ group and the Command Group to the south. The aircraft was then cleared to expend ordnance (attacks by aircraft during the morning) (Air Liaison Officer, BLT 2/9 and Executive Officer, Co. G, BLT 2/9).
- At times, TacAir support would report that they (TacAir) were coming in. Friendly ground forces could not see the planes; bombs would hit. It was thought that Laser Guided Bombs (LGBs) were being used. In the afternoon, air strikes continued without control from the ground. (This apparently occurred after front lines were established and, in effect, a Fire Support Coordination Line was drawn.) (Executive Officer, Co. G, BLT 2/9).
- Two pickup attempts (note, probably insertion attempts) were made by helicopters from the western LZ. After taking ground fire, the helicopters withdrew. There was no radio contact with the helicopters (between 0615G-0715G by 3 A-7s, Karen flight) (388-TFW 150230Z).
- Three F-4s, Duster flight, were on scene at 0715G. Contacted K-32 (K-23?) on guard. K-32 (K-23?) requested position of friendlies to east (west?) of his position. Request passed to Cricket (388-TFW 150355Z).
- At about 0900G, an A-7, Phil flight, made contact with "GO-1" (1st platoon, Co. G, in western LZ). The A-7 made dry passes over GO-1 position and slightly south. "Bingo Shoes 5" (actually Bingo Shoes 6, the Command Group to south of western LZ) reported that he was in that area. Could not get position fix on GO-1 and Bingo Shoes to expend. Consequently, the A-7 was not able to strafe (388-TFW 150520Z).
- Two A-7s, Sonic flight, reported that from 1415G-1615G, operation was greatly hampered by dispersal of friendly troops on Koh Tang (388-TFW 151615Z).
- Close air support was lacking prior to the arrival of OV-10, call sign Nail 68 (1 HH-53, reference 9). (Nail 68 arrived about 1600G.)

It is evident from the above that a major contributor to the ground/tactical air interface problem at Koh Tang was the lack of an Airborne Forward Controller (FAC) or even of a single point of airborne control where friendly positions could be marked and tracked and from where Tacair attacks could be directed. While the means for communicating with TacAir forces was present and generally adequate, control of these forces was lacking.

It is further evident the positions of ground forces on Koh Tang, at 3 different locations until about noon and at 2 locations in the afternoon of 15 May, inhibited TacAir attacks. This was especially true in the morning attacks.

The missions of the FAC (airborne) and "on-scene commander" at Koh Tang are examined in greater detail in section VI.

SECTION VI

TACTICAL AIR SUPPORT

INTRODUCTION

On 14 May at 0645Z, the Joint Chiefs of Staff (JCS) authorized the use of Naval Gunfire Support (NGFS) and Tactical Air (TacAir) in support of the Marine assault on Koh Tang and the recovery of the Mayaguez (reference 5). On the same day, CinCPac (CinCPac 140750Z) directed ComUSSAG/7AF to provide detailed plans for, among other things, employment of TacAir, including the use of BLU-82 bombs for landing zone preparation.

PLANS

The ComUSSAG/7AF plan for the Mayaguez/Koh Tang Operation (reference 3) states in regard to TacAir Operations:

- (1) "USAF/USN TacAir will be available on a 24-hour basis to prohibit small craft movement and provide CAS for the assault force."
- (2) Under the sub-paragraph headed USAF TacAir Employment: "Continuous TacAir coverage of the area of operations will be provided by A-7, F-4, and F-111 aircraft during daylight and by F-111 and AC-130 aircraft at night. This TacAir will provide CAS for Marine assault forces (including pre-assault strikes as required) and supporting naval vessels."
- (3) Under the sub-paragraph headed USN TacAir, specific tasks assigned Navy TacAir were to: ... engage Cambodian shipping northeast of a line running northwest to southeast some 15 miles northeast of Koh Tang Island; provide continuous armed reconnaissance coverage; be prepared to attack Kompong Som and Ream Airfield if directed; and provide BAR CAP (Barrier Combat Air Patrol) for B-52 strikes. (It is noted here that Navy TacAir was not specifically tasked for CAS missions.)
- (4) Under the sub-paragraph dealing with coordinating instructions: "Direct communication between the ground force commander and the strike flight and/or forward air controller is mandatory."
- (5) Under Rules of Engagement: "RCA (Riot Control Agents) will be used for CAS only when specifically coordinated with the ground commander CBU ordnance will not be delivered closer than 1,000 meters to ground forces, ... (and) the use of BLU-82 is authorized to clear LZ, if required."

TACAIR SCHEDULE

Table VI-1 presents the mission number, number and type of aircraft, call sign, and on-station time for Air Force A-7, F-4, and F-111 aircraft as contained in reference 8, the ComUSSAG/7AF aircraft schedule for 15 May 1975. The Navy TacAir aircraft schedule is not available.

The assault on Koh Tang was scheduled to commence at 0542G, 15 May, but actually commenced about 0600G. From table VI-1, it can be seen that 11 A-7D and 2 F-111 Air Force TacAir aircraft were scheduled on station, Koh Tang, at the time of the assault. Since the first Navy launch from the Coral Sea occurred about 0700G (as discussed later), it is assumed that no Navy aircraft was scheduled to be overhead in the target area at the time of the assault on Koh Tang.

CLOSE AIR SUPPORT (CAS)

Air Force TacAir

Table VI-2 provides Air Force weapons delivery data as contained in reference 17, the ComUSSAG/7AF summary report of the Mayaguez operation. The data in reference 17, reproduced in table VI-2, shows flight call sign, type aircraft, ordnance expended, and target. Reported in reference 17 but not included in table VI-2 is bomb damage assessment (BDA). The day and time of the attacks are not included in reference 17. We were able to establish the day of the attacks reported in reference 17 by checking OpRep-4 messages and using the JCS Southeast Asia Data Bank (SEADAB), extracted from OpRep-4s. Of the 37 targets in table VI-2, 15 are either "watercraft movement" or "watercraft." By definition, CAS could occur only when troops were on the island - 15 May.

To ascertain the time of the attacks on 15 May, available OpRep-4s were analyzed and, where OpRep-4s were not available, SEADAB data was examined. Table VI-3 contains the information from OpRep-4s by mission number where available. Four flights of F-4s (Bucktail, Bucket, Ram, and Carver); two flights of F-111s (Coach and Jane); and one flight of A-7s (Dooley) are not on the aircraft schedule but did submit OpRep-4s. These flights are added to the lists of table VI-3. The data in table VI-3 is listed by type aircraft: F-4, F-111, A-7D, and AC-130 (Spectra). It should be noted that all the flights listed in table VI-3 were on 15 May. The attacks listed in table VI-2 that occurred on 15 May against targets on Koh Tang, as well as one attack against the Mayaguez and two attacks against watercraft (Joyhop and Law), are accounted for in table VI-3, OpRep-4/SEADAB results. Table VI-3 provides the time of attack, as reported by the pilots, and the number and type of aircraft. The Forward Air Controller (FAC) controlling the attack is also indicated in table VI-3.

TABLE VI-1
USAF TACAIR SCHEDULE

USSAG	Aircraft	Schedule	(FRAG)	(DTG 141651Z	May 75)
Missio	on an	umber d Type rcraft	Call Sign	On-station (Z)	Time (G)
29 31 33 35 37 39	4 4 3 3 3 4	A-7	Phil Dennis Karen Rotor Apache Kid Sonic	2230 2230 2315 0100 2230 0700	0530 0530 0615 0800 0530 1400
41 43 45	4 3 4	F-4	Hitest Duster Pin	2315 0030 2330	0615 0730 0630
47 49 51 53 55 57 59 61	2 2 2 2 2 2 2 2 2	F-111	Eva Tub Jackel Gator Law Granny Bangor Bull	2230 0001 0130 0300 0430 0600 0730 0900	0530 0701 0830 1000 1130 1300 1430 1600
63 65 67 69 71 73 75 77 79 81 83 85 87 89	4 4 4 4 4 4 4 4 4 4	F-4 11 11 11 11 11 11 11 11 11	Cone Citrus Dallas Hydra Wild Jute Joyhop Packer Barracuda Cagey Olympia Chico Bat Mascot Punchy	0215 0245 0545 0345 0415 0415 0445 0515 0630 0745 0815 0845 0915 0945 1015 0145	0915 0945 1245 1045 1115 1145 1215 1330 1445 1515 1645 1715 0845

TABLE VI-2
USAF WEAPON DELIVERY DATA FROM USSAG 161500Z MAY

Call sign	Ordnance Expended ^a	Target	Date
F-4 Flights			
Hitest Duster Pin Wild Hitest Joyhop Dallas Packer Barracuda Cagey Olympia Chico Bat Mascot Bucket Bucktail	800x20-mm, 76x2.75-in 3000x20-mm 425x20-mm 2150x20-mm 1000x20-mm, 152x2.75-in 700x20-mm, 24xMK82 4 MK84 LGB 1663x20-mm, 12xMK82 12xMK82 2560x20-mm, 24xMK82 12xMK82 181x20-mm, 20xMK82 700x20-mm, 24xMK82 4 MK84 LGB 700x20-mm, 130x2.75-in, 8xMK82	Watercraft (WC) Movement """" Enemy troop location (ETL) Koh Tang (KT) WC KT ETL KT Troops in contact (TIC) KT TIC KT TIC KT Gun emplacement KT unknown KT unknown KT TIC KT TIC KT TIC KT TIC	13/14 May 14 May 14 May 14 May 15 May 16 May 17 May 18 May
F-111 Flights Law Eva Law Granny Bangor Bull	6xMK82 4xMK84 4xMK84 4xMK84 8xMK84 4xMK84	WC movement WC KT ETL KT unknown KT unknown	13 May 13/14 May 15 May 15 May 15 May 15 May
A-7 Flights Sandy Dennis	14x2.75-in 3500x20-mm, 8xCBU-30	WC movement	13/14 May 13/14 May
Karen Rotor Phil Dennis Karen Rotor Sonic Dooley	900x20-mm, 7xCBU-30 300x20-mm, 57x2.75-in CBU-30 1933x20-mm, 107x2.75-in 1600x20-mm 300x20-mm, 76x2.75-in, 3 MK84 LGB 76x2.75-in, 8xMK82 4000x20-mm, 16xCBU-30	Mayaguez KT ETL, Gun emplacement SAR KT ETL KT Gun emplacement KT TIC	14 May 14 May 15 May 15 May 15 May 15 May 15 May 15 May
AC-130s	•		
Spectre 41	53x40-mm 67x40-mm, 28x105-mm 192x40-mm 750x20-mm, 100x40-mm, 14x105-mm 200x20-mm, 208x40-mm, 15x105-mm	WC " KT ETL	13/14 May 13/14 May 14 May 15 May 15 May

 $^{^{2}800 \}times 20\text{-mm}$ means 800 rounds of 20-mm ammunition expended.

TABLE VI-3
USAF TACAIR FLOWN, 15 MAY (OPREP-4 DATA)

Mission number	No./Type	Time on station	Time on target (G)	Target	FAC	Ordnance expended
3041	2/F-4 2/F-4	0625 0625	0810-0840	Troop conc./structures	Se1f	1000 x 20mm 152 x 2.75-in
3043	3/F-4	0715	-	None	-	None
3045 ^a	4/F-4 ^a	0630 ^a		None a	-	None ·
3063	4/F-4	0915	-	None	-	None
3065	4/F-4	0920	-	None.	-	None
3067	4/F-4	-	1225-1300	S. End of Koh Tang	Self	4xMK84 LGB
3069 ^a	4/F-4ª	1025 ^a	-	None ^a	-	None ^a
3071 ^a	4/F-4 ^a	1045 ^a	-	None a	-	None
3073 ^a	4/F-4 ^a	1155 ^a	- '	None ^a	-	None ^a
3075	4/F-4	1145	1145-1215	Gun boat	-	700-20mm 24×MK82
3077	3/F-4	-	1410-1430	Known enemy location	Self	1700 20mm 12xMK82
3079 ^a	3/F-4 ^a	-	1410 ^a	Suspected _a enemy location	NA a	12xMK82 ^a
3081	4/F-4	-	1440-1510	S. End of Koh Tang	Self	24xMK82
3083	2/F-4 2/F-4	-	1515-1545 1515-1545	Suspected 23mm site S. End of Koh Tang	Sonic 1/2 Sonic 1/2	1280x20mm, 12 MK82 130x20mm, 12 MK82
3085	4/F-4	-	1545-1610	Koh Tang	Self	181x20mm 20 MK82
3087	4/F-4	-	1630-1640	S. end of Koh Tang	Se1f	700x20mm 24 MK82
3089	4/F-4	-	1645-1710	Koh Tang	Self	2000x20mm 24xMK82
3091	4/F-4	0845	-	None .	-	None
1122	4/F-4	- :	1725-1750	Known enemy location	Nail 68	700x20mm 130x2.75-in 8xMK82
			-		-	
3095	2/F-4	1645	1645 1705	None	<u>.</u>	None
	2/F-4	1645	1645-1705 1720-1735	Koh Tang	Nail 68	4xMK84
-	3/F-4 ab	out 1800		None	-	None
3097	4/F-4	•	-	None		-

[·] aSEADAB data.

TABLE VI-3 (Cont'd)

Missior number		Time on station	Time on target (G)	Target	FAC	Ordnance expended
3029	4/A-7	0530 ^a	0710-16	Mayaguez	Self	CBU-30
3031	1/A-7 (Dennis 2)	0530	-	None .	-	None
	2/A-7 (Dennis 1/3)	0530	1030	Known enemy location	Self	12x2.75 in.
			1345	Machine gun position	Se1f	713x20mm 12x2.75 in., 6 wr
			1400	Known enemy location	Self	200x20mm 77x2.75 in.
3033	3/A-7	0605	0615-0715	Ground fire positions	Se1f	1600x20mm
3035	3/A-7	0800	0810-0840	Structures	Self	300x20mm 76x2.75 in. 3xMK84
3037	3/A-7	0530	, -	None	-	None
3039	4/A-7	1415 ^a	•			
	Sonic 3 Sonic 3/4 Sonic 1 Sonic 4 Sonic 2 Sonic 2		1415 1440 1515 1815 1840 1910	Suspected AW position Sniper position Suspected AAA Suspected enemy location Suspected 50-cal. position Suspected enemy position	Self Self Self Nail 68 Nail 68 Nail 68	38x2.75 in. 600x20mm 76x2.75 in. 4 MK82 2 MK82 2 MK82
. 1120	4/A-7		1430	Troops in contact	Sonic 3	4000x20rm 16xCBU-30

^aSEADAB data.

TABLE VI-3 (Cont'd)

Mission number	No./Type	Time on station	Time on target (G)	Target	FAC	Ordnance expended
3047	2/F-111	0517	-	None	-	None
3049 ^a	2/F-111 ^a	0750 ^a	-	None ^{&}	-	None a
3051	2/F-111	0825	-	None a .	-	None.
3053 ^a	2/F-111 ^a	0955 ^a	-	None ^a	-	None ^a
3055	2/F-111	1130	1225	Patrol boat	N/A (radar)	8xMK84
3057	2/F-111	1300	1415	Koh Tang	N/A (radar)	8xMK84
3059	2/F-111	1430	1545-50	S. end of Koh Tang	N/A (radar)	8xMK84
3061	2/F-111	1555	1555	Koh Tang	N/A (radar)	8×MK84
3271 ^a	1/F-111 ^a	1730 ^a	-	None ^a	-	None a
3273 ^a	1/F-111 ^a	2030 ^a	-	None a	-	None ^a
3250	1/AC-130	about 0740	0830	Troops in contact	Self	10×40mm
		J. 10	·0940	Troops in contact	Self	750x20mm 14x105mm 90x40mm
3279	1/AC-130	1736	1813-1928	Known enemy location	Nail 68/69	8 x 1 0 5 mm 5 0 x 4 0 mm
			1928-2040	Known enemy location	Nail 68/69	200x20mm 7x105mm 158x40mm
3281	1/AC-130	1945	-	None	-	None
3283 ^a	1/AC-130 ^a	2030 ^a	-	None ⁸	-	None ^a
-	3/C-130		1823	Dense jungle area	Cricket	1xBLU-82

^aSEADAB data.

Air Force TacAir Sorties and Attacks on Koh Tang

Table VI-4 presents the number of Air Force F-4s, A-7s, F-111s, and AC-130s (Spectra Gunship) flown 13 May through 15 May; the number scheduled and flown on 15 May in support of the Marine Corps ground combat and their boarding of the Mayaguez; and the sorties expending ordnance on Koh Tang and the Mayaguez. As noted in table VI-4, in addition to the sorties shown, 1 C-130 dropped a BLU-82 bomb on Koh Tang, and 2 OV-10s strafed and/or made rocket attacks on targets after their arrival at the island (according to reference 9, the OV-10 attacks were made during extraction). Not included in table VI-4, last column, are 2 F-111s and 4 F-4s that expended ordnance on a patrol boat about 10 n.mi. west of Koh Tang (347-TFW Korat 150930Z May).

As indicated in table VI-4, of the total of 260 Air Force TacAir sorties flown during 13-15 May, 131 (50 percent) were flown on 15 May. Of these 131 sorties, 66 (50 percent) expended ordnance on Koh Tang or the Mayaguez (4 sorties of A-7s on the Mayaguez). There were 62 CAS sorties on Koh Tang in support of USMC ground forces and 4 CAS sorties on the Mayaguez in support of the boarding party. In addition, 1 C-130 sortie (out of 3 C-130 sorties reported with BLU-82) dropped a BLU-82 bomb and 2 OV-10 sorties expended 20-mm. rounds and rockets, apparently after 1800G, in their capacity as FAC.

TacAir Attacks in Relation to Other Events

Table VI-5 lists, in order of time on target (TOT), those aircraft from table VI-3 expending ordnance on Koh Tang and on the Mayaguez. Table VI-5 also lists selected associated events that occurred. From table VI-5, it is apparent that there was no pre-assault preparation of the landing zones. The first reported TacAir attack was a flight of 3 A-7Ds (Karen) between 0615-0715G in support of the downed K-23 personnel (20 Marines and 5 Air Force crew) in the eastern landing zone. The Karen flight OpRep-4 does not mention support of the Marines in the western landing zone. However, the OpRep-4 for the A-7D Phil flight mentions Karen flight "working with Golf 1" (1st Platoon Co. G), which was in the western landing zone. The Assault Ground Commander recalls that he had TacAir Support to the western landing zone, consisting of strafing and dry runs by A-7s, commenced shortly after 0630G. The next attack on Koh Tang occurred at 0810-0840G by 2 F-4s (Hitest) and 3 A-7s (Rotor). According to Rotor's OpRep-4 (388-TFW 151030Z May), these attacks were in support of the JG-13 helo attempt (between 0810G and about 0830G) to rescue the K-23 survivors from the eastern landing zone. JG-13 sustained battle damage during this unsuccessful attempt. The Spectre 61 (Gunship) attack at 0830G was apparently to cover an attempted insertion into the western landing zone.

The BLU-82 (15,000-lb. bomb) drop is reported in the OpRep-4 (Utapao Command Post 151532Z May) as having occurred at 1823G, as shown in table VI-5. The Assault Ground Commander recalls this drop as having occurred earlier. If the BLU-82 was

TABLE VI-4

USAF TACAIR SORTIES AND SORTIES EXPENDING ORDNANCE ON KOH TANG AND THE MAYAGUEZ

•	Flown 13-15 May ^a	Scheduled 15 May ^b	Flown 15 May	Expending ordnance on Koh Tang and the Mayaguez
F - 4	159	7 0	84	38
A-7	43	21	24	20
F-111	45	16	18	6
AC-130 (Spectra)	_13	<u>?</u>	5 ^d	_2
	260	107+?	131	66 ^e

^aFrom ComUSSAG/7AF 161500Z May (reference 17).

^bFrom reference 8 and table VI -1.

 $^{^{\}mathrm{C}}$ From table VI -3; OpRep-4 and SEADAB data.

 $^{^{\}rm d}{\rm 4}$ sorties from table VI -3 plus one Spectra aircraft on station prior to assault.

 $^{^{\}rm e}$ In addition, one C-130 dropped a BLU-82 bomb at 1823G and two OV-10 FAC(A) sorties expended ordnance after about 1800G.

TABLE VI-5

USAF WEAPON DELIVERY DATA: KOH TANG AND MAYAGUEZ OPERATION--EXTRACTED FROM OPREP-4 MESSAGES AND SEADAB OF 15 MAY 1975

•			TacAir				<u>Asso</u>	ciated events
Mission No.	A/C	Call sign	Time on target (G)	Target	Ordnance expended	FAC	Time of event (G)	Nature of event
							0600	Start of first wave insertion by helicopters on Koh Tang
							0600-0614	2 helos shot down on eastern beach LZ, plus 1 helo ditched off western beach LZ
	•						0600-0610	40 USMC on island (20 on each side)
3033	3 A-7D	Karen	0615-0715	Ground fire positions	1600x20mm	Self	0615-0630	109 USMC on island (60 in western LZ, 29 1200m south of western LZ, 20 eastern LZ)
3029	4 A-7D	Phil'	0710-0716	Mayaguez	CBU-30	Self		
			. •		•		0725	Holt alongside the Mayaguez
3041	2 F-4	Hitest	0810-0840	Troop con- centrations	1000x20mm 152x2.75-in	Self	0810	Extraction attempt of K-23 personnel by JG-13
3035	3 A-7	Rotor	0810-0840	Structures	76x2.75-in 3 MK84 300x20mm	Self	0822	Hayaguez secured
3250	1 AC-130	Spectre 61	0830	Troops in	8-10x40mm	Se1f		•
				contact			0900	Last helo of first wave inserted in western LZ. 131 USNC on Koh Tang (82 in western LZ, 29 south of western LZ, 20 in eastern LZ)
3250	1 AC-130	Spectre 61	0940	Troops in contact	75x20mm 90x40mm 14x105mm	Self	1005	Mayaguez crew on board the Wilson
3031	.2 A-7D	Dennis	. 1030	Known enemy location	12x2.7\$-in	Self		
		•	•				1200-1230	Second wave of helos inserts 100 USMC in western LZ, 225 USMC on island (6 evacuated to Utapao by 2nd wave)
3067	4 ,F-4	Dallas	1225-1300	S. end of Koh Tang	4xMK84 LGB	Self	1230-1300	USMC linkup in vicinity of western LZ
3031	2 A-7	Dennis	1345	Known enemy location/ machine gun position	713x20mm 12x2.75-in 6 x white phosphorus	Self	1330	The Wilson commences Naval Gunfire in eastern LZ
: 3031	2 A-7	Dennis	1400	Known enemy location	200x20mm 77x2.75-in	Self		
3079.	3 F-4	Barracuda	1410	Suspected enemy location	12xMK82	-		
3077	3 F-4	Packer	1410-1430	Known enemy location	1700x20mm 12xMK82	Self		
3039	1 A-7D	Sonic	1415	Suspected AW position	38x2.75-in	Self		
3057	2 F-111	Granny	1415	Koh Tang	8xMK84		1415-1430	Unsuccessful extraction attempt of passenger and crew of K-23 from eastern LZ

TABLE VI-5 (Cont'd)

		,		TacAir				Asso	ciated events
Mission No.		A/C	Call sign	Time on target (G)	Target	Ordnance expended	FAC	Time of event (G)	Nature of Event
1120	4	A-7	Dooley	1430	Troops in contact	4000x20mm 16xCBU-30	Sonic 3		
3039	2	A-7D	Sonic	1440	Suspected sniper	600x20mm -	Self		
3081	4	F-4	Cagey	1440-1510	South end of Koh Tang	24xMK82	Self		
3039	1	A-7D	Sonic	1515	Suspected AAA position	76x2.75-in	Self		
3083	4	F-4	Olympia	1515-1545	Suspected 23mm site	100x20mm 20xMK82	Sonic 1,	2	•
3085	4	F-4	Chico	1545-1610	Koh Tang	181x20mm 20xMK82	Self		
3059	2	F-111	Bangor .	1545-1550	S. end Koh Tang	8x1K 84	N/A radar		
3061	2	F-111	Bull	1555	Koh Tang	8x11K84	N/A radar		
							•	1600-1610	Two OV-10 arrive on scene for FAC (Nail 68 and 47)
3087	4	F-4	Bat	1630-1640	South end of Koh Tang	700x20mm 24xMK82	Self	. •	•
3089	4	F-4	Mascot	1645-1710	Koh Tang	2000x20mm 24xMK82	Self		
3095	2	F - 4	Bucket	1645-1705 1720-1735	Koh Tang	247x2.75" 4xMK84	Nail 68	1700-1730	Small boats in water for possible extraction
1122	4	F-4	Bucktai1	1725-1750	Known enemy location	700x20mm 8 MK82 130x2.75"	Nail 68		
			•					1810-15	First helo extraction (passengers and crew of eastern LZ downed helo
3279	1	AC-130	Spectre II	1813-1928	Known enemy location	50x40mm 8x105mm	Nail 68		•
3039	1	A-7D	Sonic	1815	Suspected enemy location	4xMK82	Nail 68		
1103	1	C-130	Klong	1823	Dense jungle area	BLU-82	Cricket		
3039	1	A-7D	Sonic	1840	Suspected 50- cal. position	2xMK82	Nail 68	1854-1936	Four more helo extractions, western LZ
3039	1	A-7D	Sonic	1910	Suspected enemy location	2×MK82	Nail 68		
3279	1	AC-130	Spectre II	1928-2040	Known enemy location (3 targets)	200x20mm 158x40mm 7x105mm	Nail 68		
								2010	Last extraction, western LZ

dropped just before the initial extraction, then the 1810G time (table V-3) for the JG-11 extraction, western landing zone, is too early or the BLU-82 drop at 1823G is too late. However, notes from tapes of real-time reporting record JG-11 extraction at 1810/12G and the BLU-82 drop at 1825G. The BLU-82 drop time agrees with the OpRep-4.

DISTRIBUTION OF ATTACKS

Table VI-6 lists those attacks expending ordnance (extracted from table VI-5) on Koh Tang, including the BLU-82 drop at 1823G, grouped by hourly intervals commencing at 0615G, the first time an attack was reported. Attacks that fall between 2 hours are counted in the hour containing a major portion of the time. For example, the 2 F-4 (Hitest) attacks reported at 0810-0840G are listed as having occurred in the hour 0816-0915G. The AC-130 attack reported between 1928G and 2040G is listed as 3 attacks, since three different locations were struck. As shown in table VI-6, 76 attacks on Koh Tang are recorded in this manner.

The number of attacks listed in table VI-6 do not include dry runs that were made attempting to mark the target. For example, the OpRep-4 of the 4 A-7s (Phil flight) that dropped CBU-30s on the Mayaguez reports that 2 A-7s of this flight made dry runs in support of Marines on Koh Tang, apparently about 0830G. An A-7 in Dennis flight also reported dry runs, apparently about 0700G-0730G. Also, some aircraft attacks listed in table VI-6 made more than one run in attacking the targets. It is emphasized that the attacks shown in tables VI-5 and VI-6 are by target as reported by OpRep-4s.

Figure VI-1 is a histogram, developed from table VI-6, of aircraft attacks on Koh Tang distributed by time (hourly intervals commencing at 0615G). In figure VI-1, aircraft attacks expending ordnance (not attacks by flights) are indicated on the ordinate. For example, the strafing attack by 3 A-7Ds (Karen) between 0615G and 0715G is counted as 3 aircraft attacks. Figure VI-1 illustrates that the large majority of attacks occurred after about 1215G, reaching a peak in mid-afternoon and then tapering off. Of the 76 attacks (subject to the remarks above), 57 (75 percent) occurred between 1315G and 1815G. Twelve attacks (16 percent) occurred before 1215G, and 7 attacks (9 percent) after 1815G. The most critical stages of the ground operations were at 0600G (initial insertion) when no attacks occurred; between 0600G and 1200G (maneuver to link up forces in western landing zone and before reinforcements of 100 Marines arrived); and after 1815G during extraction.

AC-130 GUNSHIP (SPECTRA) ACTIVITY

Reference 17 reports 13 AC-130 Spectra sorties, apparently during the period 13-15 May. (The inclusive times are not reported in reference 17.) This analysis, from OpRep-4s and SEADAB data, counted 5 AC-130 sorties on 15 May as follows:

TABLE VI-6
DISTRIBUTION OF ATTACKS BY HOUR

Num	ber/Hour (G)	Number of attacks expending ordnance on Koh Tang
1.	0615-1715	3 A-7
2.	0716-0815	0
3.	0816-1915	2 F-4
		3 A-7
		1 AC-130
4.	0916-1015	1 AC-130
5.	1016-1115	2 A-7
6.	1116-1215	. 0
7.	1216-1315	4 F-4
8.	1316-1415	2 A-7
		2 A-7
		3 F-4
		1 A-7
	•	2 F-111
9.	1416-1515	3 F-4
		4 A-7
		2 A-7
		4 F-4 .
		1 A-7
10.	1516-1615	4 F-4
		4 F-4
	*	2 F-111 2 F-111
11.	1616-1715	4 F-4
		4 F-4 2 F-4
	1516 1015	
12.	1716-1815	2 F-4 4 F-4
		1 A-7
17	1016-1015	
13.	1816-1915	1 AC-130 1 A-7
		1 A-7
		1 C-130 (BLU-82)
14.	1916-2015	3 AC-130 (one AC-130 made 3 attacks)
Tota	al Attacks	76

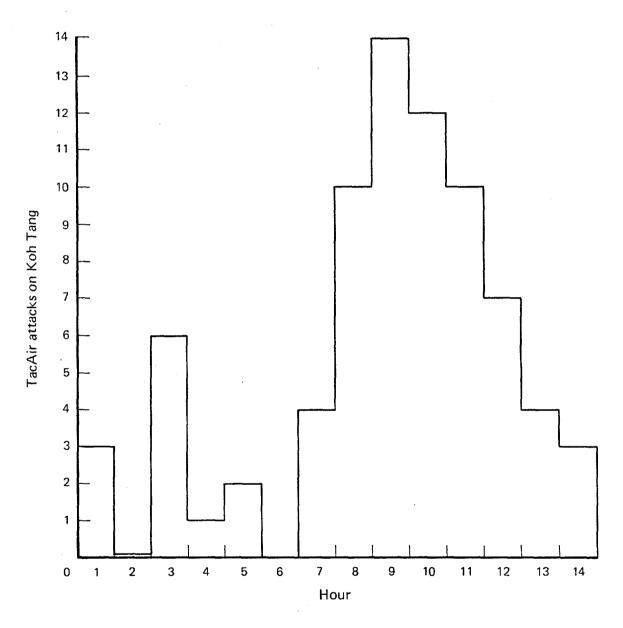


FIG. VI-1: DISTRIBUTION, BY HOUR, OF TACAIR ATTACKS ON KOH TANG

Call sign	Sortie
Spectra 61	On station, Koh Tang, until about 0530-0555G when departed for base at Korat. Enroute, diverted to Utapao for refueling and return to Koh Tang. (reference 18, OpRep-4
Spectra 61	Departed Utapao 0700G for Koh Tang. Attacked targets at 0830G and at 0940G. (reference 18)
Spectra 11	Arrived Koh Tang at 1736G. Attacked targets in support of extraction: 1813G to 1921G and again at 1928G to 2040G (3 targets). Departed Koh Tang at 2040G. (388-TFW Korat 151745Z).
Spectra 21	In target area during extraction. Prepared to drop flares if required. When "wet boresight," discovered guns would not fire. (388-TFW 151730Z May)
Spectra	On station about 2040G.

Spectra 61 was on station 15 May at Koh Tang before the assault. According to Spectra 61's OpRep-4 (reference 18), he searched at ABCCC's direction for boats in the area, proceeded to return to base to Korat, and, while enroute, was directed at 0620G by 7AF TACC to proceed to Utapao Air Base to refuel. He relaunched at 0700G from Utapao for Koh Tang for SAR efforts. Targets at Koh Tang were reported struck at 0830G and again at 0940G. No targets are reported in reference 18 as attacked before 0830G. At a speed of 300 kts., flight time (Koh Tang direct to Utapao) is a minimum of 38 minutes. Allowing 30 minutes for turnaround at Utapao results in an estimated departure time from Koh Tang of 0552G by Spectra 61. The OpRep-4s of two A-7s (Dennis 1 and 3) report taking over "...as on-scene commander prior to first light 0530 from Spectra."

From the above, it appears that the AC-130 gunship, Spectra 61, on station at Koh Tang before the assault, departed his station just minutes before (between 0530G and 0555G) the assault commenced, about 0600G.

FORWARD AIR CONTROLLER (FAC)

JCS Publication Number 1 defines the "Forward Air Controller (FAC) as an officer (aviator/pilot) member of the tactical air control party who, from a forward ground or airborne position, controls aircraft engaged in close air support of ground troops."

CTG 79.9 states, in a narrative tape of events made on 16 May, that he requested on 14 May that Air Force OV-10 aircraft be tasked as FACs for the operation. For reasons unknown, OV-10 aircraft were not tasked in either the aircraft schedule (reference 8) or the plan (reference 3). OV-10 aircraft did not participate in the operation until late on 15 May, as discussed below.

ComUSSAG/7AF (reference 8) tasked two A-7s (Dennis 1 and 3) to be prepared to act as FACs with time on station of 0530G. Ordnance load of the two A-7s was directed as rockets, CBU-38, and 20-mm. ammunition. Two A-7s (Sonic 1 and 3) with a scheduled time on station of 1400G were directed to be prepared to act as FACs in relief of Dennis 1 and 3. Dennis 1 and 3 were on station about 0530G, but departed to refuel before the assault at 0600G. The OpRep-4 of Dennis 1 and 3 (388-TFW 151200Z May) report "two helicopters were subsequently shot down on the large eastern beach while Dennis 1 and 3 were returning from refueling." Except for the time needed to refuel, Dennis 1 and 3 were on station at Koh Tang until at least 1400G.

Tables VI-3 and VI-5 list the FACs for attacks as reported in the OpRep-4s. As shown in table VI-5, no FAC was used in the attacks until 1415G, at which time a flight of 4 A-7s (Dooley) report another A-7 (Sonic 3) as a FAC. ("Self" means the flight acted as its own FAC. In some instances this is reported as "none.")

OV-10 PARTICIPATION

As mentioned above, the OV-10 was not included in plans for the FAC mission before the assault. After the assault and the initial reverses, the OV-10 was deployed for the FAC mission. Reference 9 (56-SOW 210700Z) states that the 56-SOW Wing Commander requested 20 OV-10s be deployed to Utapao to facilitate positive CAS (time of request not given). The first OV-10 departed Nakhom Phanom for Utapao at 1040G on 15 May, and the last OV-10 landed at Utapao at 1252G. The first two OV-10s, call sign Nail 68 and Nail 47, departed Utapao for Koh Tang at 1505G. With an air speed of 180-190 kts., the first two OV-10s would have arrived at Koh Tang shortly after 1600G. On arrival, Nail 68 took over as "on-scene" commander and "low FAC"; Nail 47 was "high FAC." In table VI-3, Nail 68 first appears as FAC for an attack at 1645G. The second two OV-10s that deployed to Koh Tang (Nail 69 and Nail 51) departed Utapao at 1630G. After arrival at Koh Tang, Nail 69 and 51 orbited and obtained a clear picture of the operation

before relieving Nail 68 and 47. From the sequence of events as described in reference 9 and various OpRep-4s, Nail 69 relieved Nail 68 as "low" FAC, and Nail 51 relieved Nail 47 as "high" FAC between 1915G and 1930G.

The 4 OV-10 sorties described above are the only ones that participated in events at Koh Tang.

FAC, "ON-SCENE," AND "SAR ON-SCENE" COMMANDERS

In the Air Force TacAir OpRep-4s for 15 May, various references are made to "on-scene commander" or to "SAR on-scene commander." Until the arrival of Nail 68 and 47, as discussed above, certain TacAir aircraft at Koh Tang were ordered by ABCCC to assume these designations and, of course, the duties associated with these designations. It appears that the two designations, "on-scene commander" and "SAR on-scene commander," were used interchangeably.

Reference 8 assigned the ABCCC (call sign Cricket) an "orbit anchor point" of 11°44'N /102°35'E. This point is about 85-90 n.mi. NW of Koh Tang (see figure 1 of Section IV). If the ABCCC maintained its position in the vicinity of this point, then visual contact and actual on-scene reporting of operations at Koh Tang were not possible by ABCCC. It appears that the designation of TacAir aircraft as "on-scene commander" included the duties of coordinating actual on-scene flight activity, including SAR, and perhaps acting as a FAC and reporting to ABCCC "on-the-scene" activity.

Figure VI-2 shows graphically the turnovers between tactical aircraft as designated "on-scene commanders" at Koh Tang, as reconstructed from OpRep-4s of 15 May. The solid vertical lines represent a turnover based on a time mentioned in a report; the dashed vertical lines represent the study's estimate of a turnover time generally based on associated events. The time in these latter instances is not stated; only that a turnover occurred.

As shown in figure VI-2, there were 10 different "on-scene commanders" throughout 15 May, starting with Spectra 61 and ending with Nail 69. From 0530G, just before the first wave assault (0600G), to completion of extraction of the assault force from Koh Tang (2010G), there were at least 14 turnovers in "on-scene commander." From 30 minutes before the initial assault to 30 minutes after the assault commenced, there were about four turnovers of "on-scene commander."

As mentioned in references 12(d), 13, and 16, the arrival of the first OV-10s (Nail 68 and Nail 47) brought a marked improvement to the helicopter and TacAir control situation at Koh Tang.

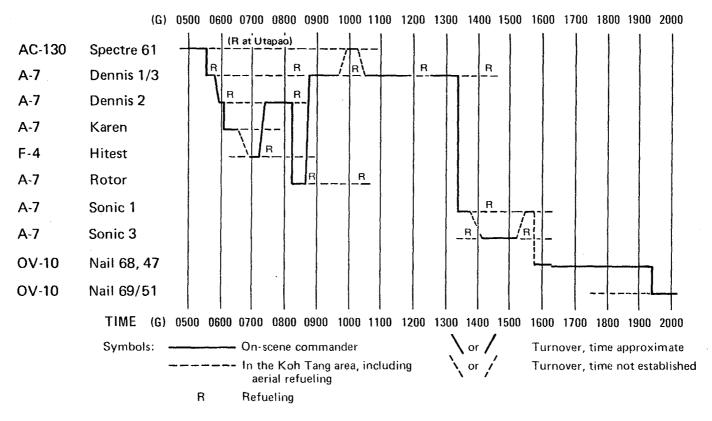


FIG. VI-2: RECONSTRUCTION OF TURNOVERS IN "SAR ON-SCENE" AND "ON-SCENE" COMMANDER AT KOH TANG AS REPORTED IN OPREP-4 MESSAGES FOR 15 MAY

LACK OF PRE-ASSAULT PREPARATION OF THE HELICOPTER LANDING ZONE

As shown in table VI-5, there was no pre-assault preparation of the landing zones on Koh Tang. Reference 9 (56-SOW 191200Z May) states that "TacAir was fragged to arrive at Koh Tang prior to first light. A request was made by Col. Johnson and Col. Anders to USSAG/7AF to use TacAir as required to secure the area prior to arrival of the helo forces." Col. Johnson was CTG 79.9 and Col. Anders was CO, 56-SOW.

A narrative-of-events tape recorded by Col. Johnson (CTG 79.9) on 16 May states that following a 1900G (14 May) planning conference, photo results of the reconnaissance of Koh Tang were received. The photos were of poor quality and definition. However, examination of the photos revealed a possible AAA siting and he requested preparation of the landing zones by fixed-wing aircraft before insertion. Col. Johnson stated that at the briefing of the helo crews (at 0200G), the information was included that pre-assault preparation of the western landing zone would be accomplished. A CTG 79.9 message of 141400Z May to USSAG includes the request that maximum TacAir be provided at insertion and for the first 4 hours until the helos could recycle.

The Assault Ground Commander stated he departed Utapao with the understanding that the possible AAA site would be checked by air reconnaissance and pre-assault strikes conducted, if required.

CinCPac message 140750Z May directed ComUSSAG/7AF to submit a plan for the assault, including, among other things, use of BLU-82 for landing zone preparation. The Plan (reference 3) states that Air Force "...TacAir will provide CAS for Marine assault force (including pre-assault strikes as required) and supporting naval vessels." Reference 3 also authorizes use of the BLU-82 bomb to clear the landing zone, if required.

A research of the message traffic issued before the assault failed to disclose a reason why there was no pre-assault preparation of the landing zones. There was, of course, considerable communication by voice between commands, and pre-assault preparation of the landing zones could have been a topic. Available evidence strongly suggests there was no real plan or intention to provide pre-assault landing zone pre-paration, unless the need or requirement arose. It is not clear how the requirement was to be determined.

• The AC-130 gunship (Spectra 61) departed his station to return to base apparently just minutes before the assault. The AC-130 was the best weapon system available at Koh Tang to provide suppressive fire for the helicopter assault. There were no targets reported as attacked by the AC-130 before the assault.

- The two A-7s (Dennis 1 and 3) designated to be prepared to act as FACs were in the process of aerial refueling at the time of the assault. There was no provision for a trained airborne controller in the OV-10 aircraft to be on station when the assault commenced.
- Airborne ordnance, shown in table VI-7 was on station at Koh Tang before the assault, but was not used (until later). In addition a flight of 3 A-7s (Karen) with MK 82s, rockets, and 20-mm. ammunition was on station about 0600/05G and possibly before this time. This flight made the first attack on Koh Tang between 0615G and 0715G.
- The use of the phrase "as required" in reference 3 in connection with providing pre-assault strikes and the use of the BLU-82 bomb to clear the landing zone is not clear.
- Reference 3 stated that ground fire directed at air and/or ground forces from the vicinity of designated targets could be returned without further approval. Ground fire received from other areas could not be returned without ComUSSAG approval. This rule of engagement, in effect, prohibits friendly fire until fired upon.

The requirement for pre-assault landing zone preparation was apparent when 3 helicopters were lost within 5-10 minutes into the assault.

Comments have been made that it was concern for the safety of the crew of the Mayaguez, possibly on the island, that precluded pre-assault preparation of the landing zones (reference 2). The messages issued before the assault and available to this study do not indicate that this was a factor. Not one of the messages on concepts, planning, modification to plans, or execution raises the proposition that landing zone preparation should not be conducted. The one reference to this factor, before the assault, is contained in the CTG 79.9 (Col. Johnson) narrative tape. In that tape, CTG 79.9 stated that he had voiced a concern over the use of the BLU-82 bomb and safety of the Mayaguez crew if they were on the island. (The decision not to use the BLU-82 bomb should not have precluded the use of small, more accurate weapons, e.g., rockets and 20-mm. and AC-130 guns if pre-assault preparation had been included in the plan.)

If concern for the safety of the Mayaguez crew was the reason that pre-assault strikes were not conducted, then it would seem that intelligence estimates of enemy forces and reports of enemy activity available to ComUSSAG/7AF before the assault would make it even more imperative to escort the troop helicopters with aircraft capable of suppressive fire, provide an airborne air controller in the OV-10, and time the assault to begin after the Wilson was on station.

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TABLE VI-7 AIRBORNE ORDNANCE ON STATION PRIOR TO HELICOPTER ASSAULT^a

Number/Type _aircraft	Call sign	Time on station (G)	Ordnance load for flight ^c	Remarks
2/F-111	Eva	0517	8 MK84.	Ordnance not expended
3/A-7	Dennis	0530	Rockets, CBU-38, and 20-mm.	Attacked first target at 1030G
4/A-7	Phi1	0530	CBU-30 and 20-mm.	Attacked Mayaguez at 0710-16G
3/A-7	Apache Kid	0530	CBU-30 and 20-mm.	Ordnance not expended

NOTE: Rockets were LAU-3; 19x2.75-in.

CBU-30 is a dispenser system containing 1,280 BLU-39 riot control gas bomblets.

CBU-38 is a dispenser system with 40 BLU-49 A/B bombs weighing 13 lbs. each.

^aAC-130 with BLU-82 bomb may have been on station also.

bFrom table VII-2 (OpRep-4s and SEADAB)

c_{Reference 8.}

U.S. NAVY TACAIR

The decision was made in the early hours of 15 May not to use B-52s, but to task the Coral Sea aircraft to strike Kompong Som facilities. Table VI-8 presents the Coral Sea aircraft data extracted from OpRep-4s issued by CTG 77.5 for 15 May. There were four Navy TacAir launches from the Coral Sea: one each at 0700G, 0830G, 1000G, and 1130G on 15 May. The last launch completed its recovery at 1335G. The Coral Sea canceled a launch, apparently scheduled for about 1300G, to make the deck ready for helicopter recovery operations and to proceed to Koh Tang.

The Coral Sea's first launch was assigned targets in the Kompong Som complex, with first time on target set explicitly at 0745G 15 May (JCS 142203Z May). The order to attack the Kompong Som complex was rescinded (JCS 150044Z May) just minutes before 0745G. The aircraft on the first launch, therefore, had no targets. The rescinding order was canceled by JCS 150118Z May. The Navy aircraft on the second launch (at 0830G) made the initial attacks on Kompong Som at 0905G-0915G, followed by aircraft from the third Coral Sea launch (see table VI-8). JCS 150455Z (1155G) directed that all offensive operations related to seizure of the Mayaguez cease. The mission of the aircraft on the Coral Sea's fourth launch, between 1130G and 1145G, was changed from attacking targets in the Kompong Som complex to providing CAS as directed by the ABCCC. Aircraft on the fourth launch (four A-7Es) did attack, apparently under the direction of ABCCC, and sink a Cambodian PCF, but were not used for CAS.

As indicated from table VI-8 and the above discussion, Navy aircraft were not used in a CAS role in the Koh Tang assault and recovery of the Mayaguez. Navy TacAir was used in the strike, photo, and CAP roles assigned by ComUSSAG/7AF plan (reference 3).

TABLE VI-8

NAVY TACAIR SORTIES AND WEAPON DELIVERY DATA FROM CTG 77.5 OPREP-4 MESSAGES FOR 15 MAY 75^a

No. and Type A/C PSG Serial 801, DTG 150307E	<u>Cell</u>	Hission	Controller	Local ToT (Isrget) (or Isunch or Station)	<u>Yorgot</u>	Ordnance	Results
2 F-4H	* Screening Eagle 102, 104	HIGCAP	PIRAL	L-0703	(none assigned)	Rone	
3 R-4H	014 Hick 200, 201	HIGCAP	•	1-0706	*	, #	
3 A-75	Besfester 302, 307, 314	STE	ABCCC	L-0710			
3 A-7E	Hoboken 411, 410, 405	STK		L-0712	H		
2 A-6A	Lizard 500, \$04	(garbled)		L-0716			
MSG Serial 002, DTG 1505302	•						
3 F-4H	Screening Eagle 112, 100, 103	CAP	PIRAZ	L-0832	(none assigned)	Rope	
. 2 F-4H	Old Nick 207, 206	CAP		L-0830			
\$ A-72	Beafeater 303, 306, 311 316	, STK	CVA/ABCCC	T-0905 .	•	5000x20mm	17 sircraft destroyed,
	Hoboken 412	•		}	Ream Airfield	54xHK82 14xHK20 (Rockeye)	S sircraft destroyed,
3 A-6A	Lizard 506, 511	STE		T-0915			HEUEste Manes 40
MSG Serial 004, DTG 1509012		·		•			
2 F-4H	Screaming Engle 102, 105	MIGCAP	PIRAZ	\$-1035	(none assigned)	none	•
2 F-4H	014 Nick 212	NIGCAP		\$-1035			
2 A-7E	Hoboken 400, 407	STE	CVA/ABCCC	∫ T-1050	Sihanoukville POL Fac	2xHX1 Walleye	No secondary explosions, both was estered area
•				T-1057	Sibanoukville Port Fac	3xMK1 Walleye	Two warehouses collepsed
				T-1100	•	-	ten anti-versa carrelan-
2 A-78	Beefeater 307,314	STE	*	7. T-1105	Sibenoukville RR Yd	. 1xHK1 Walleye	Bomb entered center door, poss, did not explode.
2 A-7E	Brofester 302	STK	#	T-1110 \		28xHK82	1 POL tank destroyed, some buildings
	Hoboken 411			ļ	Ream Naval Fac	#xMK20 (Rockeye)	damaged, destroyed.
2 A-6A	Lizard 501, 304	STE	•	T-1045		l	***************************************
MSG Serial 004, DTG 1509011							
2 F-4H	Screening Eagle 100, 112	CAP	PIRAZ	· S-1200	(none assigned)	none	
2 F-4H	01d Nick 207, 202	CAP		8-1145	*	**	
4 A-7E	Beofester 310, 311, 305	STR	ABCCC	T-1200	Swift Class PCP	16xHK82	Bost sunk
	Hoboles 405					6XHKZO (Rockeye)	
2 A-6A	Green Lizard 502, 506	STE	* :	S-1200	(none assigned)	· pone	

SECTION VII

NAVAL GUNFIRE SUPPORT (NGFS)

BACKGROUND

On 15 May, the two Navy ships at Koh Tang capable of providing gunfire support were the Harold E. Holt (DE-1074) and the Henry B. Wilson (DDG-7).

The Holt, an escort ship and member of the Knox-Class, is equipped with one 5"/54 gun that can be used for NGFS. A helo platform is aft. ComDesRon 23 was embarked on the Holt.

The Holt, and the USS Vega (AF-59), a stores ship, departed their position at $13^{0}24'\mathrm{N}$ / $119^{0}07'\mathrm{E}$. (about 100 n.mi. SW of Subic Bay) at $121400\mathrm{Z}$ May (2100G) for the area where the Mayaguez was seized. The estimated time of arrival (ETA) in the Poulo Wai Island area (first island of interest, about 25 n.mi. SW of Koh Tang) was $141200\mathrm{Z}$ (1900G). This ETA was later changed to $141600\mathrm{Z}$. The Vega, a slower ship, arrived at $142218\mathrm{Z}$.

While enroute on 13 May, the Holt reported a casualty to her 5"/54 gun (no power supply) (ComSeventhFlt 132016Z May). The Holt subsequently repaired the gun by using a jury rig power supply; and on arrival in the vicinity of Koh Tang, her 5"/54 gun was operable. The Holt was standing by 25 n.mi. NW of Koh Tang at 150121G and on "helo station" 12 n.mi. NW of Koh Tang at 0445G, ready to receive the Mayaguez boarding party from the Air Force helos.

The Wilson, a guided-missile destroyer and member of the Adams-class, is equipped with 25'/54 guns, one forward and one aft, for NGFS. She has no helo landing platform.

As she approached Subic Bay on 13 May, the Wilson was ordered (Wilson 210900Z May) to the scene of the seizure of the Mayaguez. Her ETA was 15001Z (0701G) (ComSeventhFlt 122300Z May), which proved very accurate since she reported 4 n.mi. east of Koh Tang at 0718G, 15 May (CinCPacFlt 171727Z May).

PLANS FOR NAVAL GUNFIRE SUPPORT

The USSAG/7AF plan of 141730Z May (reference 3) directed, under the paragraph headed Navy Warship Employment, that the Holt and the Wilson would be employed for gunfire and SAR support to the extent of their capabilities and that NGFS would be coordinated with TacAir CAS by the ABCCC. The Holt was to escort the Mayaguez, and both the Wilson and the Holt were to stand by the Mayaguez. The plan also directed, in

accordance with directions from CinCPac and JCS, that the Holt receive the Mayaguez boarding party from helicopters and then proceed alongside the Mayaguez. As discussed in section III, the initial CinCPac/JCS concept was that the assault on Koh Tang would begin simultaneously with the boarding of the Mayaguez from the Holt. The final plan, however, resulted in the boarding party being inserted on the Holt simultaneously with the assault on Koh Tang. Under either concept, the Holt would be engaged in the boarding party mission at the time of the assault on Koh Tang and unable to provide NGFS in support of the landing.

SUPPORT BY NAVAL GUNFIRE

The Holt and Wilson (after her arrival) were under the Command of ComDesRon 23. ComDesRon 23 reported to the ABCCC for mission assignment and tasking. The ABCCC did not task ComDesRon 23 for NGFS and did not inform him of the landing force plans.

Since the Wilson arrived on scene about 0718G on 15 May, she was not available for NGFS or SAR duties at the time the assault on Koh Tang commenced (0600G). If the final plan had called for the assault on Koh Tang to commence simultaneously with the boarding of the Mayaguez from the Holt, as proposed by CinCPacFlt (reference 6), then the Wilson could have been on scene to provide NGFS and/or SAR. However, the charts/maps of the area held by Wilson were not adequate for NGF and no photographs were delivered to her (reference 16). And, as discussed in section V and VI, there was no controlling agency on scene to direct fire near the landing zones. Therefore, it is doubtful that Wilson would have been able to provide effective pre-assault NGFS had she been present at the time of the assault. On the other hand, had Wilson been present at 0600G, she could have stood by near the landing zone ready to provide NGF, more effective SAR, and probably a more accurate reporting of the events reported to the ABCCC.

When the Wilson approached the northern tip of Koh Tang, observers aboard noticed U.S. military personnel in the water. They were the survivors of K-31, shot down about 0600G. The Wilson recovered them between 0840G and 0933G (Wilson 150220Z and 150240Z May). Shortly thereafter, she was ordered to proceed to intercept a Cambodian boat reported by a Navy P-3 as approaching Koh Tang from the mainland. This boat contained the Mayaguez crew, who were taken on board the Wilson at 1005G and transferred at their request to the Mayaguez by 1300G.

Wilson, Holt, and ComDesRon 23 communicated with the ABCCC throughout the day. It was not until after 1300, however, that the ABCCC began a NGFS effort. Wilson, after delivering the Mayaguez crew to their ship, informed the ABCCC that she could provide NGFS. The ABCCC provided 2 A-7s (Dennis flight) for fire control,

and Wilson commenced NGFS about 1330G. The first rounds were fired at the water's edge, with subsequent rounds walked inland under the spotting direction of the A-7s. The target was a machine gun on the eastern side (references 15 and 16).

The Wilson (151803Z May) reported the following:

- Expended 28 rounds 5" on a machine gun at 10°19.0'N /103°08.4'E.
 Confirmed destroyed.
- Expended 22 rounds 5" on PCF (Swift Class boat) firing at helo. Boat destroyed and sunk.
- Received fire from 10°19.3'N /103°08.4'E. Returned 30 rounds 5". No further fire received.
- Expended 77 rounds at various point and area targets around northern end of Koh Tang by direction of ABCCC.

Wilson's fire, all self-initiated, was controlled either by A-7s (Dennis and Sonic flights) or on her own. All rounds were fired on the eastern side or northern tip of the island. The Holt was occupied with the Mayaguez until 1700G, thus eliminating her as a possible source of NGFS for the greater part of the engagement. After 1700G, Holt stood by on the western side of the island. The Holt did not fire at any time.

NAVY SMALL BOAT ACTIVITY

The Wilson's personnel boat (gig) was put in the water at 1756G to assist in the recovery of the K-23 crew and passengers from the eastern landing zone of Koh Tang. The boat proceeded under gunship cover to within 300 yards of the beach and the downed K-23, where it received fire and returned fire with its 4 machine guns (Wilson 151803Z May). At 1813G, Spectre 11 commenced attacks in support of JG-11's attempt to evacuate the K-23 personnel (see section VI). This gunship attack is probably the gunship cover noted above. The Wilson's gig was driven off by gunfire. As noted in Wilson 210900Z May, the presence of the gig and its suppressive fire drew fire in return, thus diverting gunfire from JG-11 and contributing to the successful evacuation of K-23 personnel by JG-11 about 1815G. The Wilson's gig then proceeded to the western side of Koh Tang where suppressive fire was provided during extraction from the western LZ. About 5 enemy machine guns were noted in the area. The gig was recovered by the Wilson on the eastern side of Koh Tang at 2025G.

SECTION VIII

ANALYSIS

INTRODUCTION

This section analyzes the responsiveness of the U.S. Marine and Navy forces to the crisis and the military aspects of the operation for lessons that may be learned and applied to future military operations.

RESPONSIVENESS OF NAVY/MARINE CORPS FORCES

The first report sent to Washington of the Mayaguez seizure had a date/time group of 120903Z. The operation to assault Koh Tang and recover the Mayaguez commenced with the helicopter departure from Utapao at 142115Z - an elapsed time of 60 hours.

Marine Corps forces that participated in the assault and recovery were first alerted at about 131200Z. Thirty-five hours later, these forces were assaulting Koh Tang and were inserted on the Holt to board the Mayaguez. Elements of BLT 2/9 on Okinawa, some 2,000 miles from Koh Tang, assaulted Koh Tang 28 hours after the Joint Chiefs of Staff (JCS) executed the movement of BLT 2/9 from Okinawa to Utapao.

The responsiveness of the supporting forces was equally impressive. Holt, Wilson, Coral Sea, and Air Force aircraft responded to their orders quickly and effectively and were on scene as tasked by their respective commanders.

The responsiveness of the surface amphibious forces was impeded by two factors:

- The dispersion of the force as a result of the evacuation of Saigon (Operation Frequent Wind) necessitated the reassembling of certain units and the reconstituting of ARG A/31st MAU and ARG B/BLT B.
- Casualties to ships' engineering plants.

On 12 May, ARG A ships were in four different locations: 2 ships, including the Okinawa, were enroute to the island of Okinawa from Subic Bay; one was in Manila, and one was in Subic Bay. Okinawa's speed was limited to 18 knots because of steam leaks in the fireroom. ARG A/31st MAU was reconstituted on 15 May at Subic Bay (estimated sailing time from Subic Bay of 151000Z) 64 hours after CinCPacFlt directed ARG A to make preparations for getting underway. ARG B ships were in three locations on 12 May: 2 ships at Okinawa, one at Subic Bay, and one enroute to Japan from Okinawa. Two ships of ARG B, with units of BLT 3/9 embarked, sailed from Okinawa on 13 May, 6-7 hours after being placed on alert by ComSeventhFlt. A third ship, the Anchorage, returned to Okinawa, embarked BLT 3/9 units, and sailed 24 hours after the first two. The fourth ship, the Mobile, sailed from Subic Bay as a part of the Special Assault Force discussed below. ARG B/BLT B (3/9) was reconstituted and enroute to the Kompong Som area on 13 and 14 May.

The Hancock (CVA 19) was in Subic Bay undergoing engineering plant repairs. ComSeventhFlt was directed early on 13 May to prepare the Hancock for departure as soon as possible. Marine helos and troops at Subic Bay were to embark the Hancock. The Hancock (with 2 companies of BLT 2/4, HMH-462, and CG 9th MAB) and the Mobile (with 1 company of BLT 3/9) were later designated the Special Assault Force (see table III-5). The first estimated time of departure of the Hancock from Subic Bay was for 13 May at 1600Z. The Hancock's engineering plant problems delayed her actual departure until 14 May at 0600Z. On 15 May, of the three amphibious groups, the Special Assault Force was the closest to the crisis area. This force's ETA in the Kompong Som area was 1600Z (2300G) on 16 May. The assault would probably have been scheduled to commence the next morning at daylight if the Special Assault Force had been used as the assaulting force. The Mayaguez operation would then have been delayed 48 hours.

The three Seventh Fleet amphibious task groups were in a position to, if directed, mount a MAB-size assault on Kompong Som by about 1000G on 18 May, 129 hours after CinCPacFlt directed the first of these groups, ARG A, to get underway. The assault could have been supported by TacAir from 2 TF 77 carriers and from Air Force bases in Thailand plus NGFS from surface escorts with the Navy task forces.

PLANNING

The short time span between assembly of forces and execution of the assault on Koh Tang and the recovery of the Mayaguez and her crew was undoubtedly a factor in planning for the operation. There are, however, several aspects of the general planning process that should not, as the evidence available to this study indicates, be attributed to the factor of urgency.

The JCS planning guidance on 14 May included simultaneous assault of Koh Tang and boarding of the Mayaguez from Holt. ComUSSAG/7AF's initial plan called for simultaneous assault and boarding from helicopters at sunrise on 15 May. At the direction of higher authority, this plan was modified about midnight on 14 May to boarding the Mayaguez from Holt. As a result, the assault on Koh Tang occurred (about 0600G) one-and-one-half hours before the boarding of the Mayaguez (about 0725G). It is not clear from the message traffic at what level the modified plans were approved, but both the initial plan and the modified plan effectively precluded NGFS. Wilson was not due to arrive at the island until after 0700G, and Holt was tasked to support the boarding of the Mayaguez. If the timing had been changed so that the boarding from the Holt and the assault on Koh Tang were simultaneous, 3 HH-53s that offloaded on Holt could have been available at Koh Tang, and the Wilson would have been on scene at the time of the assault. At the least, SAR efforts would have been facilitated; and, perhaps, there would have been a more accurate reporting of what happened.

Tactical assault planning was hampered by the lack of tactical maps and sufficiently detailed photographs. It is not known whether, on 14 May, aerial photographs of Koh Tang had not been made, or made but not distributed to Utapao. Reference 2 states

that the Mayaguez and the area around Koh Tang were photographed frequently. Ten Air Force RF-4 photoreconnaissance missions were flown on 13 and 14 May. The CTG 79.9 tape of events states that there was very good aerial photo coverage of the Mayaguez available at Utapao on his arrival (about 0900G 14 May) but no photos of the island. In response to a request by CTG 79.9, aerial photographs were delivered that night (about 2100 or 2200G). The photographs offered only general detail of the island and were not useful for calling in supporting fire (references 12(b) and 13).

For some reason unknown to this study, the dissemination of intelligence for planning was faulty. Although the ComIPac assessment was apparently held by ComUSSAG/7AF, the forces at Utapao had an entirely different assessment of enemy strength (20-40 irregulars) than that promulgated by ComIPac and also by DIA (between 100-200 men).

Examination of photographs the night before the assault by the commanders of the Air Force helicopter and Marine assault forces caused concern that there might be an enemy AAA emplacement near the landing zones. This concern was transmitted by telephone to ComUSSAG/7AF (reference 9 and as reported by CTG 79.9 in a tape recording made on 16 May). The Marine Ground Commander of the assault force reports he departed Utapao for Koh Tang with the understanding that the suspected enemy position would be checked out and TacAir used to clear the landing zone if required (reference 13).

Sporadic automatic weapons fire had been received by aircraft on 13 and 14 May. At least 1 and maybe 3-4 aircraft received minor damage from this fire before the assault. A Navy P-3 was damaged on 13 May. Reference 17 reported after the operation that 2 RF-4Cs and 1 F-4D each had a "hole" (apparently a bullet hole) but the time that this damage was received is not reported. Apparently because of this fire, a visual aerial reconnaissance on 14 May was limited to 6,000 feet.

In spite of the indications of enemy force and activity, it appears that there was no pre-assault reconnaissance on 14 May or early 15 May that determined whether there were enemy positions on Koh Tang that constituted a threat to the assault force landings.

Reference 3 included the statement that Air Force TacAir would conduct pre-assault strikes as required. The assessment by ComUSSAG/7AF of the situation described above resulted in a decision not to conduct pre-assault strikes based, as stated in reference 2, on a concern for the safety of the Mayaguez crew. It is not known what effect the commander of the forces at Utapao might have had on this decision had they known of the ComIPac enemy force estimate. It appears, however, that the decision not to conduct pre-assault strikes was made without adequately following through on the concerns of the commanders of the Air Force helicopter and Marine assault forces about possible enemy emplacements. It also appears they were not kept informed of the results of any reconnaissance in response to their request.

A decision was made not to include in the plans provision for armed escort of the troop helicopters by aircraft capable of providing continuous suppressive fire in the landing zones. The AC-130 gunship and the OV-10 were available, and it appears either one or both could have been assigned this mission.

There was no provision in the planning to provide a single point of airborne command and/or FAC at the island with the capability to ascertain and report events as they happened, to organize air assets, and to maintain a continuity of effort between ground and air forces.

EFFECTIVENESS OF COMMAND AND CONTROL (C²)

The tactical command directions and coordinating information related to the assault of Koh Tang and the recovery of the Mayaguez were by voice means. No written record of this type of information is available to this study except as reflected in situation reports, tape interviews, interviews with participants, OpRep-4 reports, and similar material.

ComUSSAG/7AF specified a highly centralized command and control plan. Retention of detailed control at a highly centralized level means that level must be prepared to deal with detailed changes resulting from unforeseen circumstances, as occurred at Koh Tang. This, in turn, requires detailed and accurate information. The results of this analysis indicate this system of control was not adequate at Koh Tang.

The loss of three helicopters and the complete disruption of the landing plan within the first few minutes of the assault can only mean that the U.S. Joint Command was surprised by the Cambodian resistance. From the available material, it also appears there was a breakdown in the central coordinating function, especially in the first hour or two of the Koh Tang assault and extending intermittently into the day. Related to this breakdown is an apparent lack of understanding on the part of the central coordinating authority of the role of the ground forces, their problems in ground combat, and the use of NGF.

Confusion over Status of Helicopters and Assault Force

Table VIII-1 presents abstracts of two ComUSSAG/7AF Situation Reports (SitReps) issued about 45 minutes and 1 hour and 40 minutes, respectively, after the assault began. As indicated in table VIII-1, ComUSSAG/7AF apparently did not know the helicopter situation some 45 minutes after the loss of two helicopters in the eastern landing zone and the loss of one helicopter off the western landing zone. As of 0740G, the situation was still not clear, nor is there any mention of the third helicopter that had been lost.

Reference 19 reports that after the assault began, three A-7s (apparently Karen flight, table 5 of section VI) were directed by the ABCCC (Cricket) to go down and report what was happening. According to reference 19, a member of this flight reported that one helo was down in the eastern landing zone and that apparently the rescue helicopter

TABLE VIII-1

ABSTRACT OF SITUATION REPORTS (SITREPS)

	ComUSSAG/7AF message DTG	SitRep No.	As of time (G)	Report abstract	Reconstructed situation
	150001Z	037	0645	 A CH-53 reported down in vicinity of LZ; 15 of 21 personnel have been rescued. No further infor- mation on other 6 personnel. 	Between 0600-0615, 3 CH-53s were lost; two at the eastern LZ and one ditched off the western LZ.
					13 survivors of K-31 in water (east side).
					20 USMC, 5 AF crew of K-23 in treeline at eastern LZ.
-104-					3 AF crew of K-21 rescued by K-32. 1 AF crew not recovered (west side).
	1501012	038	0740	• Latest information indicates 18 survivors picked up from helicopter that crashed at sea in the vicinity of the LZ. Rescue helicopter then reported to have crashed on shore.	Reconstructed situation remains as listed above.
				 One helicopter reported down on beach at 12° 20'N./102°10'E. (Thailand coast). 	As reported in SitRep

had also crashed. This report may be the source of ComUSSAG/7AF SitRep 038 (table VIII-1).

Notes made from real-time reporting (or tapes of the reporting) at FMFPac and Marine Corps Command Center, HQMC, indicate that by 0825G to 0845G, a helo status report shows: 1 helo ditched in water; 1 helo beached (in Thailand); 1 helo crashed on beach; and 1 helo crashed (apparently in water). It would appear therefore that by 0825G, an accurate count of the number of helicopters lost was obtained.

However, it is also apparent that there was confusion at the 7AF TACC Command Center as to the time the helicopters were lost and as to what happened to the passengers and crew of the downed helicopters. For example, ComUSSAG/7AF 151450Z May reported: $^{\rm l}$

- At 0614G, K-21 reported down on north side of island. Eighteen survivors picked up by 0630G.
- At 0639G, K-23 crashed on beach.
- At 0712G, K-31 went down off north side of island.

It is realized that situation and real-time reporting is only as good as the information received from units engaged in the combat. Because of the nature of combat, there is a tendency for such reports to be confusing; at Koh Tang, the confusion was exaggerated.

Search and Rescue (SAR)

The SAR effort, after the loss of the 3 helicopters, appears to have been concentrated entirely on the people from K-23 in the eastern landing zone. Apparently the information received from various sources on scene led the ABCCC and ComUSSAG/7AF to believe those were the only "survivors," as indicated by the SitReps of table VIII-2. There was, however, radio contact by K-31 survivors in the water with aircraft under ABCCC control.

The Karen flight of A-7 aircraft (OpRep-4, reference 20) reported they had radio contact with K-23 personnel in the eastern LZ and also with K-31 survivors in the water. Yet, for unknown reasons, the fact or even the possibility that survivors were in the water was not reported to the Wilson, the only unit (after JG-13 received battle damage about 0810G) that could have rescued them that morning.

The movements of JG-13 after insertion on the Holt and up until a rescue attempt of survivors on the beach in the eastern landing zone are not known. It does not appear,

The same times of loss for K-21 and K-31 are in the CinCPac After-Action Report (CinCPac 180210Z May). Loss of K-23 is reported as occurring at 0645G. Similar times are given in the JCS After-Action Report (reference 11).

TABLE VIII-2

HELICOPTERS LOST/DAMAGED
AND SUPPORTING FIRE AVAILABLE

Number lost or damaged	Approx. time (G)	Landing zone (East or West)	USMC in zone	Air and NGF ^a support
2 lost 1 lost	$_{0610}^{0600}$ to	E W	0	No pre-assault strikes or air/NGF support
3 damaged	0615 0630 to	W	20-33	No air/NGF support
1 damaged	0810	Е	20	Air support only
1 damaged	1000	W	82	Air support only
1 damaged	1215	E	20	Air support only (helo flew over island between zones)
1 damaged	1415	. E	20	Air and NGF support
1 damaged 1 damaged	1810 1815	E E	20	Air and NGF support
1 damaged	2000	W	29 ^b	Air support only

aOne DDG (two 5" guns).

bLast group extracted.

however, that JG-13 made an attempt to search for and pick up survivors in the water. The Marine FAC, one of those survivors, stated in a telephone conversation (Oct 1976) that he could see helicopters in the vicinity of the island and that none made any movements indicating a SAR was in progress for the people in the water. This Marine FAC controlled TacAir attacks (Karen) on the eastern landing zone by using the UHF survival radio. The Wilson happened to see one survivor about 0840G, which led to a search for the remaining survivors (reference 16). The Wilson also was not notified at any time that a helicopter had ditched off the western LZ with a crewman missing.

Breakdown in Tactical Coordination

Other aspects of the operation indicate either a breakdown in tactical control coordination and/or a lack of understanding of the ground forces' role and problems in ground combat. These aspects are:

- The Assault Command Group (CTU 79.9.1) was inserted in an area separate from the main assault force, with enemy forces between the two groups.
- CTG 79.9 at Utapao was not kept informed of the assault force situation at Koh Tang. The planned radio link between assault forces and CTG 79.9 via ABCCC was not used by ABCCC.
- The Command Group was not informed of the composition or situation of the group in the eastern LZ. The Ground Commander states he was aware there might be some friendly forces in the eastern LZ as he knew that two helicopters had crashed there. The situation of any survivors was not reported to the Command Group.
- The Command Group was not informed of the recovery at 1005G of the crew of the Mayaguez and that, as a result, their mission was changed. The first indication of the recovery of the crew was by word of mouth from personnel in the second assault wave.
- The Command Group and CTG 79.9 were not consulted concerning the decision not to insert the second wave. The JCS/CinCPac decision was apparently based on an inaccurate report concerning the status of the assault force. The ground forces were requesting reinforcements throughout the morning.

- The Command Group was not consulted or informed of the plan of insertion for the second wave - 3 helos to the eastern LZ, 2 to the western LZ.
- The Command Group and CTG 79.9 were not consulted or informed of the drop of the BLU-82, a 15,000-lb. bomb. When the bomb was first seen by the ground force, it was thought to be an air delivery of supplies that they had requested earlier.
- The Command Group and the group in the eastern LZ were not informed that they would be extracted by helicopter until the extracting helicopter(s) were in their approach. This lack of warning concerning the time and means of extraction may have contributed earlier in the morning to the unsuccessful extraction attempt in the eastern LZ.
- There was no attempt to coordinate or employ NGFS for the first 7 hours of the assault.

Tactical Communications

Tactical communications were generally adequate in the sense that most units could talk to each other. Two major exceptions were that: (1) there was no communication by Marines in the eastern LZ with Marines in the western LZ (see table 7 of section V); and (2) CTG 79.9 did not have effective communications with CTU 79.9.1 and CTU 79.9.2.

Another exception was the inability of the force in the western LZ to communicate directly with F-4s and F-111s as these aircraft did not have VHF radio. Communications with these aircraft were via the ABCCC. Had Navy TacAir been used in a Close Air Support (CAS) role in support of Marine Corps forces, the same problem would have existed.

Other tactical communication problems were related to use of the nets. References 12(d) and 13 note the saturation of the BLT tactical net assigned for control of ground forces. CTG 79.9 noted communication problems with ABCCC between 0615G and 0821G. It appears that net discipline broke down during the first few hours. It may have been difficult for the ABCCC to simultaneously monitor, coordinate, and/or control the several VHF/UHF nets assigned for various functions.

EFFECTIVENESS OF CLOSE AIR SUPPORT (CAS)

As shown in table 4 of section VI, 62 Air Force CAS sorties expended ordnance on Koh Tang in support of Marine Corps forces. An additional four sorties supported the boarding of the Mayaguez. The distribution of effort of the CAS attacks is indicated by figure 7 of section VI.

The major problem relating to CAS was the lack of continuity that existed in the ground/air interface. It was necessary for the ground force to repeatedly brief different flights on their own locations. The TacAir flights repeatedly had difficulty in locating the ground forces. The primary reason for the problem was the absence of a dedicated airborne FAC until the arrival of the OV-10 about 1600G.

It is not known how many or what kind of targets the CAS attacks destroyed. It does appear, from reference 12, that CAS attacks, including dry runs, were very effective in suppressing enemy activity at the time of the attacks. Reference 12 also notes the close delivery of some CAS weapons (within 50 meters) to friendly forces.

Eleven Mk 84 Laser-Guided Bombs (LGBs) were expended on Koh Tang (reference 17). From a comment in reference 12(d), the explosion of what was apparently LGBs close by friendly ground forces without the forces' visual recognition of the attacking aircraft¹ caused some apprehension. Although in these instances the ground forces were notified of an impending attack, they were not notified as to the mode of attack or the use of LGBs. It is assumed that the enemy did not see the attacking aircraft either. Thus, the adverse effect on the enemy of actually seeing an attacking aircraft may have been lost when LGBs were used. The two effects (one on friendly troops and one on the enemy) indicate that, against a well-concealed enemy, where standoff is not a governing factor, a larger number of smaller bombs, rockets, or napalm delivered conventionally may be more appropriate than LGBs.

HELICOPTER VULNERABILITY

Eight of the nine helicopters exposed to enemy fire in the first assault wave, including one of the helicopters inserting on the Holt, were lost or damaged to the extent that they were incapable of participating in further operations (see table 5, section V). At Koh Tang, of the 14 Air Force helicopters engaged in insertion or extraction of assault forces, 13 received battle damage, including the 3 lost to enemy fire.

 $^{^{1}}$ The LGBs were apparently released from a high altitude.

The sudden bursts of enemy fire in the first few minutes of the assault, unobstructed by any previous or return fire by friendly forces and before any troop insertion, resulted in the loss of 3 helicopters in a short time span of no more than 5-10 minutes.

The next three helicopters into the western landing zone received major battle damage. The damage to these helicopters occurred within about 15-20 minutes after the loss of the first helicopters, before any air strikes in the vicinity of the zone (table 5, section VI), without NGFS, and with only 20-33 Marines in the zone to provide covering ground fire. Damage or loss to 6 of the 8 helicopters in the first assault wave occurred at a time when there was no air or naval support. Of the remaining 2 helicopters, 1 was damaged at about 0810G in the eastern landing zone and one at about 1000G in the western landing zone. In the second assault wave, the helicopter that was damaged, after approaching the eastern landing zone, flew low and straight across the center of the island between the two zones, thereby drawing intense fire (reference 12(d)).

Damage to 3 of the remaining 4 helicopters occurred while attempting extraction from the eastern landing zone. The last helicopter was apparently damaged at about 2000G during the last extraction from Koh Tang (see table 3, section V).

The relatively slow approach and the tactic of hovering and then turning 180 degrees before landing increased the time of exposure of each helicopter, in all likelihood contributing to the damage suffered.

Table VIII-2 summarizes the above discussion; it includes the number of Marines available in each landing zone to provide ground suppressive fire and notes whether air and NGFS was available or not. The approximate times shown are when it appears major damage was received. Minor damage not serious enough to prevent continued operations may have been received at other times.

As noted in table VIII-2, air provided attacks in support of insertion (or extraction), commencing with the helicopter damaged at 0810G. Naval gunfire was used in the eastern landing zone in the afternoon, but no naval gunfire was used in the western landing zone. From table VIII-2, in all cases of helo loss/damage but one, 33 Marines or less were in the landing zone to assist with suppressive fire during the approach and landing.

The enemy tended to hold fire until a helicopter was in, or about in, a hover (reference 12). Thus, an immediately responsive and continuously suppressive type of fire was needed, timed to cover the period between the helo's hover and departure. It is not apparent from the reports if suppressive fire tactics were used by the F-4s and A-7s

or if the attacks in support of helicopter insertion/extraction were more of a softening-up process made before the helicopter landing. Of the aircraft available, the OV-10 and AC-130 gunship were probably best suited for the required suppressive fire. An AC-130 covered an insertion at 0900G. An A-7, AC-130, OV-10, and the Wilson's gig covered the extractions, commencing about 1810G.

There were heavy helicopter losses and damage sustained in the assault on Koh Tang. This fact has been used in at least one study (reference 21) to demonstrate the helicopter's extreme vulnerability and to question the feasibility of helicopter assault. The experience at Koh Tang should not be used as an example to disprove the concept of helicopter assault. The assault was not carried out in accordance with amphibious doctrine or training.

MARINE CORPS AMPHIBIOUS ASSAULT DOCTRINE

Tactics

The helicopter assault at Koh Tang did not utilize the following tactics incorporated in Marine Corps doctrine:

- Adequate reconnaissance before insertion.
- Pre-assault strikes in the landing zones.
- Escort of troop helicopters by aircraft capable of supplying suppressive fire.
- The use of suppressive fire, continuous and close in, while the assault helos are near and in the zone.
- Rapid insertion, offload, and departure.
- Rapid troop buildup ashore.
- Maintenance of unit tactical integrity.

The results of the helicopter assault emphasize the adherence to doctrine built on military experience. It is, of course, not possible to say what would have happened had the above tactics been used at Koh Tang. However, the resulting losses and the fact that they were not used tend to validate the doctrine.

Superiority of Force and Use of Supporting Arms

Marine Corps assault doctrine stresses the importance of assault force superiority over enemy ground forces. Also, the superiority of supporting arms and their effective use is emphasized.

Table VIII-3 shows the buildup in Marine Corps troop strength on Koh Tang by location and the cumulative buildup for all locations. As shown in table VIII-3, a maximum strength of 225 was reached about 1215 to 1230G with the arrival of the second wave.

TABLE VIII-3
USMC TROOP BUILDUP

LOCATION

Time of insertion (G)	Eastern landing zone (LZ)	Western landing zone (LZ)	South of Western LZ	Cumulative buildup
0600/0605	20 ^a	20	0	40
0620/0625	20	33	0	53
0620/30	20	60	29 ^b	109
0900	20	82	29	131
1200	20	134 ^C	29	183
1215/30	20	176 ^d	29 ^e	225

aPlus 5 USAF helicopter crewmen

bIncluding the Command Group (CO BLT 2/9), designation CTU-79.9.1.

c Fifty-three inserted, 1 WIA evacuated.

Forty-seven inserted, 5 WIA evacuated.

 $^{^{}m e}$ Link up in western LZ occurred between 1230 and 1300G

After the assault, the Ground Commander estimated enemy strength at about 150 men. The ratio of Marine Corps assault force strength to enemy strength was then about:

Time period	Ratio		
G	Marines to enemy		
0600-0620	0.35 to 1		
0620 <i>-</i> 0900	0.73 to 1		
0900-1230	0.87 to 1		
1230 -	1,50 to 1		

The enemy in all probability substantially outnumbered the assault force until the arrival of the second wave reinforcements. Marine Corps doctrine states that in the face of compelling necessity, an amphibious operation may be undertaken on the basis of a reasonably total superiority of force (naval, air, and ground force). As an example, surface and air superiority may justify a landing even though the amphibious task force does not possess the desired numerical superiority in landing force, provided the surface and air units can be used effectively (reference 22). In the Mayaguez operation, surface units were not present initially, and air units were not used effectively to support the assault.

REFERENCES

(All DTG Messages are May 1975)

- 1. ComIPac 240340Z (S)
- 2. "Seizure of the Mayaguez, Part IV," Report of the Comptroller General of the United States submitted to the Subcommittee on International Political and Military Affairs, Committee on International Relations, 4 Oct 1976
- 3. ComUSSAG/7AF 141730Z (TS)
- 4. CTF 76 021330Z (S)
- 5. JCS 140645Z (S)
- 6. CinCPacFlt 141254Z (S)
- 7. CTG 79.9 141400Z (S)
- 8. ComUSSAG/7AF 141651Z (S)
- 9. 56-SOW Nakhon Phanom 191200Z (S)
- 10. ComIPac 132144Z (S)
- 11. Joint Chiefs of Staff (JCS), After-Action Report, no date (S)
- 12. Tape Interviews
 - (a) 1st Lt Michael S. Eustis, USMC, "M" Battery, 3d Bn/12th Mar., attached to 2d Bn/9th Mar. (On K-31, shot down in water eastern landing zone); 10 June 1975
 - (b) Gunnery Sergeant Francis A. McGowin, Jr., USMC, Intelligence Officer, 2d Bn/9th Mar., 5 Jun 1975
 - (c) 2nd Lt Michael A. Cicere, USMC, 3d Platoon Commander, "G" Co., 2d Bn/9th Mar. (On K-23, shot down in eastern landing zone), 14 Jun 1975
 - (d) 1st Lt James D. Keith, USMC, Executive Officer, "G" Co., 2d Bn/9th Mar. (On JG-42, inserted in western landing zone. Controlled TacAir attacks 9 Jun 1975
 - (e) Maj. John B. Hendricks, USMC, Operations Officer, 2d Bn/9th Mar. (On JG-43, inserted 1200 meters south of western LZ) 5 Jun 1975
 - (f) 2nd Lt James McDaniel, USMC, 1st Platoon Commander, (G) Co., 2d Bn/9th Mar. (On K-21, inserted in western landing zone), 9 Jun 1975
- 13. Interview with Lt Col R. Austin, USMC, Commanding Officer 2d Bn/9th Mar., (CTU 79.9.1 on JG-43, inserted 1200 meters south of western landing zone), 2 Mar 1976
- 14. CTG 79.9 151138Z (S)
- 15. CinCPacFlt 171727Z (S)

- 16. Phone conversations with Cdr. M. Rogers, USN, Commanding Officer, USS Wilson (DDG-7), 1 Mar 1976, and subsequently
- 17. ComUSSAG/7AF 161500Z (S)
- 18. 388-TFW, Korat 150650Z (C)
- 19. Taylor, Capt. John B., "Air Mission, Mayaguez," Airman Magazine, Feb 1976
- 20. 388-TFW Korat 150230Z (C)
- 21. Binkin, Martin and Record, Jeffrey, "Where Does the Marine Corps Go From Here," Brookings Institution, Washington, D.C.
- 22. FMFM 3-1 "Command and Staff action," U.S. Marine Corps, 20 Sep 1966

APPENDIX A

CHRONOLOGY 12 TO 15 MAY 1975

APPENDIX A

CHRONOLOGY 12 TO 15 MAY 1975

This appendix lists a chronology of events by day, 12 through 15 May. The events are generally abstracts from messages. The source of the event is indicated by the originator of the message and the Date, Time, Group (DTG). Local Gulf of Thailand time (time zone "G") is used for the purpose of determining a change in dates. For example, a message with the date/time/group of 131800Z is considered to be on 14 May. To convert Greenwich Time "Z" to "G" time, add 7 hours.

Some of the messages refer to a "GSF" (Ground Security Force). The term "GSF" was frequently used during the planning for the emergency evacuations of Cambodia and Saigon. However, it is not a term officially recognized by the Marine Corps nor is it contained in the JCS Pub. 1, Dictionary of Military and Associated Terms.

ASSAULT ON KOH TANG AND RECOVERY OF THE MAYAGUEZ

12 May

- CTG 79 deactivates 9th MAB, RLT 4, PROVMAG 39, and BLSG. Chops (transfers command authority) these units to CTG 79 effective 112200Z May. (CTF 79 120411Z May)
- American Embassy, Jakarta, reports seizure of the U.S. flag vessel, Mayaguez, by Cambodian armed forces, at 9° 48'N, 102° 53'E. (AmEmb Jakarta 120903Z May)
- National Military Command Center directs launch of reconnaissance aircraft for photo coverage of ship. (Phone conversation NMCC/CinCPac/CinCPacFlt 121200Z May)
- CinCPacFlt directs ComSeventhFlt to provide P-3 photo reconnaissance as soon as possible and to direct nearest surface unit to proceed to area at best speed. Do not approach territory of Cambodia closer than 12 n.mi. (CinCPacFlt 121337Z May)
- JCS confirms seizure of Mayaguez and air reconnaissance requirement. Orders forces to refrain from hostile intent and remain clear of territorial waters.

 (JCS 121437Z May)

13 May

- CinCPacFlt directs ComSeventhFlt to order Coral Sea and escorts to proceed at best speed to vicinity 9°20'N, 102°40'E. Also directs ARG A to make all preparations for getting underway. (CinCPacFlt 1218122 May)
- ComSeventhF1t directs CTF 76 and CTF 77 to take CinCPacF1t 121812Z for action. (ComSeventhF1t 121928Z May)

- CinCPacF1t directs ComSeventhF1t to prepare Hancock, appropriate surface units for departure Subic as soon as possible with helos and Marine troops. Mission is seizure of Poulo Wai Island. (CinCPacF1t 122028Z May)
- ComSeventhFlt directs CTF 77 to take CinCPacFlt 122028Z for action. (ComSeventhFlt 122102Z May)
- CTF 77 passes CinCPacFlt 122028Z to CTG 77.3 for action.
 (CTF 77 122124Z May)
- ComSeventhFlt directs CTF 76 to load ARG A with assigned troops ASAP and get underway when directed. USS Okinawa to return to Subic with current load of helos embarked. CTF 77 and CTF 79 directed to configure Hancock as LPH unit with 31st MAU helos now at Cubi and troops at Subic not assigned 31st MAU. (ComSeventhFlt 122206Z May)
- CTG 76.4 reports status of ARG A. USS Okinawa enroute Okinawa now enroute Subic. Elements of BLT 2/4, HMM 164, HMM 165, HML 367, HMA 369 embarked. Speed limited to 18 kts. because of overheated bearings in forced draft blowers caused by high fireroom temperatures resulting from steam leaks. ETA Subic 150200Z May.

Barbour County presently enroute Okinawa with opportune lift of engineer/bridge platoons. Directed to return to Subic.

Duluth in port Subic for boiler repairs. One boiler available. Speed limited to 14 kts. Elements of BLT 1/4 embarked.

Mount Vernon in port Manila. Elements of the BLT 1/4 embarked.

Duluth and Mount Vernon directed to make all preparations for getting underway. (CTG 76.4 122235Z May)

- ComSeventhFlt reports USS Harold E. Holt with ComDesRon 23 and USS Vega departed 13°24'N, 119°07'E at 121400Z May enroute vicinity 09°48'N 102°53'E. Holt ETA 141200Z with about 50 percent fuel. Vega ETA 142218Z. USS Henry B. Wilson assigned as additional escort. Best estimate of Wilson ETA 150001Z. On arrival Wilson, ComDesRon 23 will be in position to blockade Kompong Som. CTG 77.5 will be in position (500 n.mi. SSE) to initiate mining of Kompong Som. (ComSeventhFlt 122300Z May)
- Hancock estimates can be underway on three main engines at 131600Z at the earliest. (CTG 77.3 122332Z May)
- ComSeventhFlt reports Okinawa ETA Subic as 150200Z. Hancock estimate to get underway on 3 shafts (18 kts. SOA) at 131600Z or 4 shafts (23 kts. SOA) at 132200Z. Marines loaded by 130800Z. CTG 77.5 prepared to conduct mine operations first light 15 May with . Mining plans require use of and mines.

Nearest mines in Subic require hours to prepare. Anticipate at least required to get first mines fully configured to Coral Sea via AE.

(ComSeventhFlt 122350Z May)

- ComSeventhFlt directs ARG B (Denver, Tuscaloosa, Mobile) with BLT B currently loaded placed on 4-hour notice to sail. Anchorage hold in present location. (ComSeventhFlt 130008Z May)
- CTF 76 directs helos, equipment, personnel at Subic and embarked USS Okinawa be distributed between Okinawa and Hancock on arrival Okinawa at Subic. Barbour County complete full BLT 1/4 load on arrival Subic. Mount Vernon proceed Manila to Subic and load out elements BLT 1/4. Duluth expedite boiler repairs, complete full BLT 1/4 load. (CTF 76 130041Z May)

- CTF 76 directs Vancouver, Thomaston, and Peoria to get underway with presently embarked BLT 2/4 elements. (CTF 76 130053Z May)
- CTF 76 directs load out of BLT 3/9 on ARG B shipping (Anchorage, Tuscaloosa, Mobile, Denver). Anchorage to return to Okinawa at best speed. Tuscaloosa, Denver in Okinawa ports. Mobile in Subic. Assume a 4-hour readiness for getting underway. (CTF 76 130112Z May)
- CTF 79 activates 9th MAB (CTG 79.1) effective 130900Z May. Preliminary guidance is planning to occupy port of Kompong Som. (CTF 79 130148Z May as modified by 130750Z May)
- ComSeventhFlt reports status of Navy/Marine units. (SitRep 004 as of 130300Z).

ARG A/31st MAU

Ship	Location	RFS Best Estimate
Duluth	Subic	1422002
Mt. Vernon	Subic	1312002
Barbour County	Subic	141200Z
Hancock	Subic	131600Z
Okinawa	enr. Subic	151000Z

31st MAU (BLT 1/4) troops, helos, and equipment normally embarked on Okinawa will be embarked on Hancock. Okinawa on arrival Subic will offload helos as necessary to obtain optimum helo assault mix and will load BLT 2/4 elements. BLT 2/4 sea tail will be loaded on ARG A as BLT 1/4 sea tail is currently on Okinawa.

BLT 3/9 is embarked in ARG B, with exception of Amtracs, and on increased readiness. Denver/Tuscaloosa are to sail to Subic, ETA 150800Z May. Anchorage enroute to Okinawa to load Amtracs and proceed to Subic, ETA 160200Z. Mobile on 4-hour

alert at Subic. CTF 76 flying to Subic PM 13 May to assume command of ARG A, ARG B. Hancock. 9th MAB activated for planning. (ComSeventhFlt 130344Z May)

- ComIPac reports surveillance aircraft report Mayaguez at 130337Z at 10°10'N, 102°55'E, Course 050°T; speed 12 kts.
 (ComIPac 131517Z May)
- ComSeventhF1t reports status of Navy/Marine units (SitRep 005 as of 130800Z May)

Hancock Task Group designated a separate assault force capable of seizing Poulo Wai Island. Composed of USS Hancock and three DEs. Embarked Marine units are two rifle companies of BLT 2/4, HMH 462 and CTF 76, CTG 79.1. Estimated RFS at 140001Z May depending on evaporator problem. If sailed at 140001Z, ETA Poulo Wai Island is 160200Z May.

ARG A composed of Okinawa, Mount Vernon, Duluth, and Barbour County will have embarked 31st MAU (BLT 1/4, HMM 165). Estimated RFS at 151400Z May. ETA Kompong Som 180900Z.

ARG B with BLT 3/9 embarked will join at Subic about 160200Z. (ComSeventhFlt 130716Z May)

- CG III MAF requests ComSeventhFlt advise if surgical team and surgical support team embarked Hancock.
 III MAF does not have a surgical platoon cadre to augment landing force.
 (CG III MAF 130841Z May)
- CTF 79 provides general concept and organization of Marine units for seizure of Poulo Wai Island and/or Kompong Som as required.

Minimal 9th MAB staff provides command and control for BLT 2/4 (-) and HMH 462 to seize Poulo Wai Island complex.

31st MAU joins elements of 2/4 (LVTs, Tanks, Shore Party and LSU) to BLT 1/4. Composite helo squadron for 31st MAU is currently aboard Okinawa and consists

- of 14 CH-46, 4 CH-53, 2 UH-1E, 3 AH-1J. 31st MAU will participate as a subordinate element of 9th MAB to seize Kompong Som when directed.
- CTG 79.5 (CO. BLT 3/9) in ARG B shipping transit Okinawa to Subic prepared to execute contingency operations when directed as subordinate element of 9th MAB.
- At time decision made to seize Kompong Som vice Poulo Wai Island. BLT 2/4 (-) will be reconstituted as BLT 2/4 (Rein).
- CTG 79.1. Embark minimal staff in Hancock. Prepare to conduct operation to seize Poulo Wai Island complex with BLT 2/4 (-) and HMH-462, chopped to CTG 79.1 effective 130900Z May.
- CO 2/4 (-). Embark HQ element and two rifle companies in Hancock.
- CO HMH 462. Embark squadron as soon as possible in Hancock. Chop detachment of 4 CH-53 to HMM 165 for inclusion in composite helo squadron HMM 165 (31st MAU).
- CTG 79.4 (CO 31st MAU). Join elements of BLT 2/4 to complete MAU structure. Form composite squadron HMM 165 consisting of 14 CH-46, 4 CH-53, 2 UH-1E and 3 AH-1J. Embark on ARG A ships. When directed report to CTG 79.1 for planning to seize port of Kompong Som. Disembark in Subic those elements of Okinawa not required by this tasking.
- CTG 79.3. Chop HMM 369 (-) (3 AH-1J); Det HMM 164 (7 CH-46); Det HML 367 (2 UH-1E) to HMM 165.
- CO HMM 165. Assume OpCon of Dets and report to CTG 79.4 as composite helo squadron for 31st MAU.
- ComUSNavPhil. Request immediate chop 2/4 (-), currently involved Grande Island refugee operations, to CTF 79.
- CTE 79.1.7 will assume mission of 2/4 elements for Grande Island security. (CTF 79 130920Z May)

- CinCPac directs USSAG to comply with JCS directive to maintain fighter/gunship cover over Mayaguez. Attempt to obtain release of ship or at least prevent her going into port. Authorized to fire in vicinity of gunboats (to side or in front). Specifically prohibited from firing on gunboats. (CinCPac 131055Z May)
- JCS directs immediate objective is to prevent SS Mayaguez from sailing toward Kompong Som. (JCS 131341Z May)
- CinCPac directs USS Harold E. Holt to be prepared on arrival to: (1) move Mayaguez with own resources, and (2) disable Mayaguez. (CinCPac 131359Z May)
- CinCPacFlt directs ComSeventhFlt carry out CinCPac 131359Z.
 (CinCPacFlt 131441Z May)
- ComSeventhFlt provides information on current planning to USS H.E. Holt, ComDesRon 23, and other units. Options include USAF helo lift of USMC forces positioned at Utapao. Two Marine platoons would be committed to seize Mayaguez while an ACBLT would take Poulo Wai Island. Planning still in progress on details of airlift, delivery to Holt, transportation Holt to Mayaguez, etc. Timing has not been determined but earliest hour mentioned has Marines departing Kadena and Cubi at first light, 14 May. Options also include Holt using present ships force. Holt should be prepared to deal with Mayaguez whether she has her normal crew, hostile KC forces, or no personnel at all. Coordination underway to provide USAF TacAir overhead. (ComSeventhFlt 131604Z May)
- JCS orders execute of movement of all available helicopter assets in Thailand to Utapao, 75 USAF Security Police from Nakhon Phanom to Utapao, two platoons (Rein) Marines from Cubi to Utapao via MAC airlift. One Okinawa Marine Battalion to be placed on advanced deployability posture for movement to Utapao via MAC airlift, aircraft to move to Kadena AB in preparation for lift.

 (JCS 131610Z May)

14 May

• CinCPacFlt passes JCS 131610Z to ComSeventhFlt for action relative to Marine units. (CinCPacFlt 131702Z May). ComSeventhFlt passes action to CTF 79. (ComSeventhFlt 131734Z May)

CinCPac directs USSAG to move USAF forces as required by JCS. Directs Marine Bn on Okinawa on alert no later than 140330Z May. (CinCPac 131737Z May)

- ComUSSAF/7AF issues supplemental special instructions for SS Mayaguez surveillance operation. Instructions include plan to seize Mayaguez with 125 USAF security police helo lifted on board Mayaguez (reported at anchor at 10°18'N, 103°08'E, off Koh Tang). First light (0600G 14 May) arrival on station by helos planned. (ComUSSAG 131748Z May)
- CTF 79 directs CTG 79.4 (31st MAU) provide one rifle company (-) for transport Cubi to Utapao. Company to consist of HQ element and two rifle platoons (Rein), about 120 total personnel. On arrival report to Col. Johnson, this HQ, enroute Utapao. (CTF 79 131807Z May)
- CinCPacFlt directs ComSeventhFlt include Koh Tang in mission planning in addition to Poulo Wai Island. (Due to movement of Mayaguez to vicinity 10°20'N, 103°09'E). (CinCPacFlt 131831Z May)
- CinCPacFlt directs ComSeventhFlt task force units assigned to SS Mayagyez operations in Gulf of Thailand to plan on operating in support of ComUSSAG/7AF with direct liaison authorized by all concerned (DIRLAUTHALCON).

 (CinCPacFlt 131857Z May)
- JCS executes movement of Okinawa based Bn to Utapao by MAC airlift.
 (JCS 131912Z May)

- ComSeventhFlt directs CTF 76 to expand mission planning to include Koh Tang.
 (ComSeventhFlt 131940Z May)
- CinCPac directs movement of Okinawa-based Bn to Utapao. (CinCPac 131959Z May)
- ComSeventhFlt passes for action CinCPacFlt 131857Z May (subject, task force units plan on operating in support of ComUSSAG/7AF) to Seventh Fleet Units. (ComSeventhFlt 132010Z May)
- ComSeventhFlt reports status of units. (SitRep 006, as of 131800Z May)

USS Midway enroute 13°35'N, 110°45'E; ETA 150530H.

Hancock RFS at 140800H. CTF 76, CTG 79.1, three companies (2/4) Marines, one SEAL platoon, 11 CH-53, 4 CH-46, 2 UH-1E, 3 AH-1J embarked.

USS H.E. Holt enroute vicinity Mayaguez. ETA 141600Z. Holt reports 5"/54 gun is casualty requiring delivery of new power supply. (ComSeventhFlt 132016Z May)

- ComUSSAG/7AF issues SSI for Mayaguez surveillance operation superceding his 131748Z. Concept remains as in 131748Z. Boarding party will be USMC or USAF security police. (ComUSSAG/7AF 132021Z May)
- USSAG issues frag for helo flow for 14 May. (ComUSSAG/7AF 132036Z May)
- CinCPac directs ComUSSAG/7AF and CinCPacF1t to take ROE/operating authorities in JCS 131905Z for action. USSAG/7AF modify his SSI 131748Z to read "USMC GSF personnel" vice "USAF Security Police" and change command and control to "command and control will be maintained by CinCPac who will be acting under direction from JCS." (CinCPac 132051Z May)

- ComIPac reports SS Mayaguez apparently anchored off Koh Tang. Five Khmer small boats in area:
 - 2 Mk-II type PCF patrol boats
 - 1 possible PBR
 - 1 unidentified 60-ft. armed boat
 - 1 unidentified 70-ft. armed boat
 - U.S. aircraft report sporadic machine gun fire from patrol craft and the island. ComIPac estimates 1 KC Co. (90-100 men) reinforced with a heavy weapons squad on island. Estimated weapons of such a squad are:
 - 1 82-mm. mortar
 - 1 75-mm. recoilless rifle
 - 2 .50-cal. machine guns
 - 1 12.7-mm. machine gun
 - 2 B-40/41 rocket launchers

in addition to weapons on patrol boats. (ComIPac 132144Z May)

FMFPac estimate of patrol boat weapons are:

PCF

- 1 82-mm. mortar
- 3 .50-cal. machine guns

PBR

- 3 .50-cal. machine guns
- 1 40-mm grenade launcher

- CTF 79 reports USMC company (-) departed NAS Cubi for Utapao at 131743Z May. USMC ACBLT 2/9 in advanced deployability posture at 131835Z May. (CTF 79 132124Z May)
- CTF 79 directs embark of ACBLT 2/9 aboard MAC airlift, Kadena AB, as soon as possible for special operations from Utapao. On arrival report to Col. Johnson, this HQ, currently enroute Utapao. (CTF 79 132125Z May)
- CinCPacAF reports C-141 launched from Kadena at 1321052 with 104 Marines. ETA Utapao 140235 May. Further launches planned on ASAP basis. (CinCPacAF 1321402 May)
- BLT 2/9 personnel, equipment deployed to Utapao.

Unit	Pers	Mules	RR	Mortars	Other
2d/9th Mar	850	12	8	8/81mm.	
4.2 Mortar Battery (12th Mar)	108			5/4.2	2 Mk110 Radio Jeeps
					6 Gamma Goats
Eng Plt	34	3			
SP P1t	23	1			
FSR Det.	6				
HQ Bn Det.	11				
Command Group	5				
	1,037				

plus 155 pallets cargo including 5-day ration pack.

• Co. D (-) 1/4 arrives Utapao 132143Z. (CMC 151048Z May)

- CTF 79 reports airlift of ACBLT 2/9 commenced 132105Z. Estimated completion time 140700Z May. Units ready for onward movement on arrival Utapao. (CTF 79 132250Z May)
- JCS directs Hancock task group sail at 140001Z or as soon thereafter as possible. Configure as an ARG/MAU to assist in recovery of Mayaguez and crew. If Hancock delayed, other amphibious ships proceed without waiting.

 (JCS 132310Z May)
- ComSeventhFlt reports status of forces (SitRep 007, as of 140001Z May)

Hancock has failure of 150-1b. steam aft due valve failure. Earliest RFS estimate 140300Z. Holt 5" gun operable with jury rig power. Support for spare regular power supply still required. (ComSeventhFlt 132358Z May)

- CinCPac directs USSAG/7AF to plan for use of USMC GSF vice USAF Security Police for insertion. ETA Marine Bn Utapao is 140700Z. CinCPac will execute on order of JCS. (CinCPac 140045Z May)
- JCS provides guidance for planning. Holt be prepared on arrival to initiate effort to control Mayaguez movements, including embarkation or disabling. Provide NGF support in event of Marine assault to recover crew from Koh Tang. Primary objective is to move Mayaguez clear of area. Final decision as to specific course of action not yet made. (JCS 140108Z May)
- ComSeventhFlt orders Duluth and Barbour County sail independently when loaded and RFS to join Hancock in Gulf of Thailand.
 (ComSeventhFlt 140304Z May)
- ComSeventhFlt reports status of units. (SitRep 008 as of 140100Z May)

Hancock estimated departure 140400Z.

Mount Vernon and Mobile have been directed to sail. Mobile ETD 1403002; Mount Vernon ETD 1500012, delay due to CasReps embarked boats. Duluth and Barbour County will sail when loaded and RFS.

Coral Sea estimated on station 09°20'N, 102°40'E at 150530Z. (ComSeventhFlt 140348Z May)

- CTF 79 designates Col. Johnson GSF commander for Cambodia Contingency operations (CTG 79.9). BLT 2/9 and D Co. (-), 1/4 chop to CTG 79.9. CTG 79.9 assume opcon BLT 2/9 and D Co. (-) (Rein), 1/4, for designated Contingency ops as directed by CinCPac and ComUSSAG. (CTF 79 140426Z May)
- JCS confirms authority, passed by secure voice at 140406Z, to attack and sink small craft in vicinity of Koh Tang and one craft enroute for Poulo Wai. (JCS 140455Z May)
- Cdr. USMC GSF, CTG 79.9, arrived Utapao 140915G on first aircraft. Reported to ComUSSAG via telecom. Planning underway. ABCCC will be airborne on frequencies 8133/8010 HF, 309.0/322.2 UHF. Det 1/4 assigned call signs:

Primary Eagle Nest 31.60 MHz Alt. Eagle Wing 31.90 MHz

ABCCC will guard circuits and relay.

Plan task designators as follows:

CTG 79.9 GSF Cdr. CTU 79.9.1 BLT 2/9 CTU 79.9.2 Det 1/4

Col. Johnson sends. (FASU Utapao 140423Z May)

 CTF 76 reports status and embarkation of Navy/Marine Corps units.

Ship	Est./actual time of departure Subic (May)	Embarked	ETA vicinity Kompong Som
Hancock	140600Z	CG 9th MAB HMH 462 11 CH-53 2 CH-46 2 UH-1E 4 AH-1J E Co. BLT 2/4 G Co. BLT 2/4 81-mm. mortar Plt Recon Plt 106mm Plt 1st Radio Bn Det P Shore Party Det Eng Det ITT Det 2 SH-3	1610002
Okinawa .	151000Z	CO. 31st MAU A Co. BLT 1/4 C Co. BLT 1/4 H&S Co. BLT 1/4 HMM 165 4 CH-53 14 CH-46 2 UH-1E 3 AH-1J	180300Z
Duluth	141000Z	B Co. BLT 1/4 G Battery Amtrac P1t	170300Z
Barbour County	151000Z	D Co. BLT 1/4 (not airlifted) Truck Plt	180300Z
Mount Vernon	151000Z	LSU Shore Party Eng Det Tank Plt	180300Z
Mobile	1403202	K Co. BLT 3/9 LSU 3/9	162020Z

Est./actual time of departure Subic (May)

Ship

Embarked

Kompong Som

ARG B ships (Denver, Anchorage and Tuscaloosa) less Mobile are enroute Subic where they will remain on 6-hour alert. BLT 3/9 (less elements on Mobile) embarked.

9th MAB consisting of BLT 2/4 (-) (Rein), HMH 462, and LSU 3/9 is embarked Hancock/Mobile. 31st MAU embarked in ARG A (Okinawa, Duluth, Mount Vernon, and Barbour County) (CTF 76 140645Z May)

- JCS provides planning guidance for Mayaguez operation. Holt to seize Mayaguez with ship company and/or augment Marines. Occupy Koh Tang with Marines supported by USAF helos. Use of TacAir and NGF as available and as required. Current planning is for target area at sunrise, 15 May. Requests plans prior 140900 EDT. (JCS 140645Z May)
- CTG 79.9 reports in SitRep for period 131900Z to 140700Z. 131900Z awaiting transportation at Kadena. Depart Kadena at 132105Z. Arrive Utapao at 140215Z. Briefings by Utapao Base Cdr., CO 56 SOW and USSAG/7AF representatives. OinC Det 1/4 briefed on seizure plan and CTG 79.9 concurred. Planning for seizure Koh Tang and/or Poulo Wai Island initiated and is complicated because of limited helos. Five HH-53 and 5 CH-53D up. Initial lift capability of 235 GSF per cycle. Round trip time Utapao - Koh Tang is 3 hours 30 minutes. Lack of adequate maps of both islands. No photos available. Expect photos this Aerial recon of both islands scheduled this P.M. for key personnel. At 140550Z Det 1/4 on 30minute standby. As of 140635Z 855 BLT 2/9 personnel at Utapao. Col. Johnson sends. (FASU Ūtapao 140648Z May)

- ComIPac reports Mayaguez located at Koh Tang, probably anchored, vicinity 10-19N, 103-10E as of 140400Z. U.S. aircraft on scene conducting surveillance and interdiction. Aircraft receiving sporadic automatic weapons fire from small boats, the island, and Mayaguez. Khmer boats in vicinity of Koh Tang are one PCF, one U/I 60-ft. boat and one U/I 70-ft. boat. (ComIPac 140649Z May)
- Phone conversation between NMCC, CinCPac, CinCPacFlt, ComUSSAG, and CinCPacAF at 140500Z discussed an option for execution first light 15 May. Concept involved near simultaneous employment of TacAir, boarding of Mayaguez, seizure of Koh Tang, and air strikes on land. To accomplish, CinCPacFlt states CTF 77 needs tasking for level of effort/targets and timing desired by ComUSSAG on 15 May. ComDesRon 23 requires a platoon of 40 USMC, an EOD team and nucleus crew of 12 Navy/MSC personnel now at Utapao be on board Holt prior to entering area to board Mayaguez. CinCPacFlt assumes TacAir will be available overhead at execution. (CinCPacFlt 140657Z May)
- BLT 2/9 arrives Utapao 140700Z May. (CMC 151048Z May)
- At 1415G 14 May CTG 79.9 receives mission from USSAG by telephone. Seize and hold indefinitely Koh Tang for a minimum of 48 hours. Simultaneously seize the SS Mayaguez and remove ship from area. Tentatively tasked to place a small detachment aboard the USS Holt to effect a seizure of Mayaguez. Mission received at 140715Z (141415G). CTG 79.9 questioned feasibility of transferring troops to Holt at night, uncertainty of Holt's arrival time and ability to make arrival at Mayaguez concurrent with seizure of island. (CTG 79.9 151138Z, SitRep 2 for period 140700Z through 150700Z)
- CinCPac directs ComUSSAG/7AF to designate Marine GSF to embark Holt for boarding of Mayaguez. Do not embark Holt prior first light. Seize Koh Tang. Use of BLU-82 to clear landing zone for assault troops authorized. Plan maximum employment of Coral Sea TacAir, minimum use of Thai based TacAir. (CinCPac 140750Z May)

- CinCPac directs ComUSSAG provide TacAir tasking (to Coral Sea) and arrival time of 40 USMC, EOD team and Navy/MSC nucleus crew to Holt. (CinCPac 140814Z May)
- CTF 79.9 assumes opcon BLT 2/9 and D Co. (-) (Rein) 1/4 effective 140426Z for contingency operations as directed by CinCPac and ComUSSAG. (CTG 79.9 140838Z May)
- Key members of CTG 79.9 (GSF CD Group) and BLT 2/9 made visual recon of Koh Tang. Commenced at 140845Z, completed at 141130Z.
 (CTG 79.9 151130Z. SitRep 2).
- Conference held at 141200Z with GSF staff and key GSF commanders.
 (CTG 79.9 151130Z May)
- CinCPacFlt provides a plan for Mayaguez/Koh Tang operation.

One USMC platoon (40 Marines) plus EOD team and nucleus crew of 12 depart Utapao by USAF helo in time to be overhead Holt first light 15 May. Transfer personnel to Holt by hoist. Holt about 12 miles from Mayaguez will require about 2 hours to receive personnel and steam to Mayaguez.

- At about first light plus 2 hours TacAir deploy RCA against Mayaguez, followed by small arms fire from Holt. USMC from Holt board and secure Mayaguez, followed by EOD team and nucleus crew.
- Simultaneous with TacAir RCA attack on Mayaguez. USMC assault force land from USAF helos, seize Koh Tang. TacAir support as required. Wilson provides NGFS as requested by ABCCC. Holt provide additional NGFS as feasible.
- Wilson, Holt and TacAir destroy all Cambodian small craft in area that intervene.
 - Coral Sea provide TacAir as tasked by ComUSSAG.
- Coral Sea close area to facilitate refueling USAF helos if requested.

It is expected that ComUSSAG will set assault landing time, preliminary RCA employment, helo flow, TacAir schedule, in coordination with Marine assault force commander, CTF 77, and ComDesRon 23. (CinCPacFlt 141254Z May)

- CTG 79.9 provides a concept of operations to ComUSSAG.
 - Eight helos insert about 175 GSF personnel onto Koh Tang at 142242Z.
 - Three helos simultaneously insert 48 GSF, 6 MSC and 6 Navy personnel onto Mayaguez.
 - Holt requested to be in position to actively support, announce GSF insertion aboard Mayaguez. Holt arrive at 142237Z recommended. Placement GSF on Holt tonight considered infeasible.

Request USSAG/7AF provide maximum TacAir at insertion and for first 4 hours until helos can recycle.

GSF will remain at least overnight. Request maximum flares from AC-130 continuous night coverage. (CTG 79.9 141400Z May)

- ComUSSAG/7AF advises ComSeventhFlt USSAG is presently working out the details of helo assault with Marine force commander at Utapao. Assault Force Cdr recommends, and USSAG agrees, boarding team be helo lifted direct to Mayaguez. Planning USAF helo lift to deliver first wave of assault to beach and landing party to Mayaguez simultaneously at 142245Z. Heavy USAF and USN TacAir will be continuously available. (ComUSSAG/7AF 141515Z May)
- CTF 76 provides SitRep 002 as of 141600Z. Hancock required testing of engineering plant after extensive repairs at Subic prior to attaining 22-kt. speed. Resulted in 6-hour delay in ETA. ETA vicinity Kompong Som now 161600Z. ETA of Mobile is 161700Z vice 162020Z reported in my 140645Z.

Barbour County and Mount Vernon expected sail from Subic when loaded and RFS. Anticipated prior 151000Z.

Okinawa will make brief stop at Subic (for load adjustment). Expected underway from Subic prior 151000Z.

ARG B less Mobile (Denver, Anchorage, Tuscaloosa) have been directed to sail direct to vicinity Kompong Som and not stop at Subic.

Six Navy personnel (3 engineers, 3 deck rates) provided from Mobile and Duluth to assist in operation of Mayaguez. Personnel departed Subic with Co. D (-) 1/4 early A.M. 14 May. (CTF 76 141601Z May)

• ComUSSAG/7AF issues frag for boarding of Mayaguez and seizure of Koh Tang on 15 May. Frag contains helo flow, and events for USAF TacAir and supporting aircraft. Frag directs insertion on Koh Tang and on Mayaguez from helos simultaneously commencing at 142242Z May. (ComUSSAG/7AF 141651Z May)

15 May

- ComUSSAG/7AF issues plan for Koh Tang/Mayaguez operation.
 (ComUSSAG 141730Z May)
- CTG 79.1 issues SitRep 01 covering period 131200Z to 141200Z. Embarkation of landing force elements and essential equipment completed on Hancock at 131600Z. Delayed departure of Hancock permitted additional loading of AVCAL completed at 132300Z. Marine forces are:

```
9th MAB
Det P, 1st RAD Bn
HMH 462
   11 CH-53
    2 CH-46
    4 AH-1J
    2 UH-1E
 2d/4th MAR (-) (Rein)
   NGF Team
   Det 1/4 Medical
   Company E
   Company G
   Company K (3/9) embarked
      Mobile
   80 MM Mortar Plt
   106 MM RR P1t
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Recon Plt
Det SP Bn (2 helo support team)
LSU 3/9 embarked Mobile.

Planning for operations to recover Mayaguez conducted. Plan continue planning for

Seizure of Koh Tang Seizure of Poulo Wai Island Seizure of Kompong Som Recovery of SS Mayaguez (CTG 79.1 141705Z May)

- ComUSSAG approves concept in CTG 79.9 141400Z and states frag will reflect helo flow required. (ComUSSAG/7AF 141730Z May)
- At 142057Z (150357G) ComUSSAG/7AF verbally orders CTG 79.9 execute. (CTG 79.9 151138Z, Sit Rep 2)
- ComIPac reports Mayaguez remains at anchor off Koh Tang. US TacAir and Patrol aircraft continue surveillance and interdiction. Status and location of Mayaguez crew still uncertain. In addition to PCF boat (Cambodian) which sank enroute to Kompong Som, two other patrol craft have been sunk in vicinity of Mayaguez. (ComIPac 142115Z May)
- First helos depart Utapao for Holt/Koh Tang at 142116Z (150416G). Last helos off at 142123Z (0423G). (CTG 79.9 151138Z May)
- JCS to CinCPac directs execution of operations to effect recovery of Mayaguez and crew. CinCPac directed to seize and secure Mayaguez by assault by Marines aboard Holt. Sail or tow ship to sea. Use of RCA, suppressive NGF, and Coral Sea/USAF TacAir authorized as deemed appropriate. Commence Marine helo assault on Koh Tang in accordance with JCS 140645Z May. Use of NGF and Coral Sea USAF TacAir authorized against Koh Tang.

USN ships and TacAir authorized to engage and destroy all Cambodian craft that intervene in the op area.

Withdraw Marine assault force from Koh Tang as soon as feasible upon completion of search for and removal of Mayaguez crew. Withdraw all forces from op area as soon as feasible on completion of mission. (JCS 142142Z May)

- CinCPac directs execution of landing on Koh Tang and boarding of Mayaguez at 142045Z. (CinCPac 142152Z May)
- JCS directs CinCPac to execute cyclic strike operations from Coral Sea against targets in the Kompong Som complex. First time on target at 150045Z May which is estimated time of capture of Mayaguez. First event principal targets to be aircraft and military watercraft. Avoid merchant ships until clearly identified as Cambodian. Make maximum use of precision-guided weapons on targets of military significance.

 (JCS 142203Z May)
- ComDesRon 23 reports as of 142145Z. At 142110Z directed by 7AF through ABCCC to execute plan. Holt on helo operations station 12 n.mi. NW Koh Tang at 142145Z waiting for helos. On completion will proceed alongside Mayaguez. (ComDesRon 23 142211Z May)
- Phone conversation NMCC/JCS/CinCPac/CinCPacFlt at 142120Z May provided alert to expect Navy strikes ordered against Kompong Som. CinCPacFlt advises ComSeventhFlt of alert and to expect execute from ComUSSAG/7AF. (CinCPacFlt 142204Z May)
- CTG 79.9 reports a telephone conversation at 142057Z between C/S ComUSSAG and 56 SOW ordered execution of Cambodian contingency operations. First two helos with elements Co. D (-) (Rein) BLT 1/4 lifted off at 142116Z May. (CTG 79.9 142230Z May)

- CinCPacFlt directs ComSeventhFlt to take CinCPac 142152Z (execute boarding Mayaguez and landing on Koh Tang) for action.
 (CinCPacFlt 142234Z May)
- USSAG advises CTF 77 of JCS direction to execute helo assault on Koh Tang, recovery of Mayaguez, and execution of Coral Sea air strike. First TOT not before 0045Z.

 (USSAG/7AF 142240Z May)
- CinCPacFlt directs ComSeventhFlt to comply with appropriate paragraphs of JCS 142142Z (execute message of boarding Mayaguez and landing Koh Tang) (CinCPacFlt 142251Z May)
- CinCPac directs USSAG/7AF and CinCPacFlt to commence cyclic TacAir strike operations in accordance with JCS 142203Z May. First TOT at 150045Z. (CinCPac 142305Z May)
- CinCPac directs USSAG/7AF and CinCPacF1t to conduct assault landing on Koh Tang and seize Mayaguez as directed by CinCPac 142152Z and specified by JCS 142142Z.

 (CinCPac 142310Z May)
- ComSeventhFlt directs CTF 77 and CTG 79.9 to take CinCPacFlt 142234Z (execute for landing at Koh Tang and boarding Mayaguez at 142045Z) for action. Respond to directions and tasking ComUSSAG/7AF. (ComSeventhFlt 142326Z May)
- ComSeventhFlt directs CTF 77 and CTG 79.9 to comply appropriate paragraphs of JCS 142142Z as directed by CinCPacFlt 142251Z. Respond to directions and tasking ComUSSAG/7AF. (ComSeventhFlt 142354Z May)

NOTE: See body of report for reconstruction of events relating to execution.

ComIPac reports operations underway (as of about 142300Z) to recover Mayaguez and attack targets in Kompong Som area. Resistance is expected on Koh Tang. Possibly a Khmer defense force of 90-100 men remains best estimate of enemy strength in absence of any hard evidence. Resistance will probably be sharp but short-lived. U.S. TacAir continues to receive sporadic automatic weapons fire from island.

A probable PCF was sunk (about 141800Z) while trying to reach the island. Total sunk to date; 2 PCFs, 1 unidentified 60-ft. boat, 1 unidentified 70-ft. boat, (ComIPac 150326Z May)

- CSAF Wash directs MAC Scott AFB to position eight C-141s from to Utapao immediately in order to be ready to return Marine forces to Okinawa. (USAF 150442Z May)
- JCS directs cease all offensive operations related to seizure of Mayaguez. Disengage and withdraw as soon as possible consistent with safety and selfdefense. (JCS 150455Z May)
- CTF 76 reports USS Hancock, Mobile, and Edson at position 11°04.1N, 112°29.5E. At best speed will arrive 12 n.mi. south of Koh Tang at 161600Z May. Available for tasking on arrival. ARG A (Okinawa, Duluth, Mount Vernon, Barbour County) and remainder of ARG B (Denver, Tuscaloosa, Anchorage) will arrive Koh Tang evening 17 May through 18 May. (CTF 76 150945Z May)
- CinCPacFlt directs ComSeventhFlt disengage and withdraw all forces. JCS 150455Z refers. (CinCPacFlt 151314Z May)
- CinCPac provides reporting instructions for final SitReps.
 (CinCPac 151330Z May)
- CinCPacFlt directs all Seventh Fleet forces except TG 77.5 (Coral Sea), Wilson, Holt, Vega, revert to normal op con.

- JCS directs execute of retrograde of all U.S. Marines in Thailand for Mayaguez operation. Highly desirable no Marines be left in Thailand at first light 16 May.
 (JCS 151433Z May)
- CTG 79.1 reports in SitRep 2 for period 141200Z 151200Z. Planning is continuing to reinforce Marines on Koh Tang and for the contingency of securing Kompong Som. Monitored tactical situation on Koh Tang over Blue Chip command net. At approximately 2030G (15 May) received word GSF extraction successfully completed. (CTG 79.1 151516Z May)

APPENDIX B

ANALYSIS OF U.S. AIR FORCE HELICOPTER MOVEMENTS 15 MAY 1975

APPENDIX B

ANALYSIS OF U.S. AIR FORCE HELICOPTER MOVEMENTS 15 MAY 1975

INTRODUCTION

To reconstruct events relating to the helicopter assault on Koh Tang and recovery of the Mayaguez, this appendix discusses and analyzes the movements of the Air Force helos on 15 May.

The movements of the helos as reconstructed here are summarized in a time chart at the end of this appendix. In addition, a detailed account of the number of landing force assault personnel is presented.

AIR FORCE HELICOPTERS

Each Air Force helicopter participating in the Mayaguez operation is listed below by major event category and call sign:

- First wave insertion on Koh Tang
 - Knife-21
- Knife-32
- Knife-22
- Jolly Green-41
- Knife-31
- Jolly Green-42
- Knife-23
- Jolly Green-43
- Insertion of boarding party on Holt
 - Jolly Green-11
 - Jolly Green-12
 - Jolly Green-13
- Second wave insertion on Koh Tang
 - Knife-51
- Jolly Green-12
- Knife-52
- Jolly Green-43 (42)
- Jolly Green-11 Jolly Green-44
- Extraction from Koh Tang
 - Knife-51
 - Iolly Green-11
 - Jolly Green-12
 - Jolly Green-43 (42)
 - Jolly Green-44

JG-43 on return to Utapao from the first wave assumed the call sign of JG-42. This helo is referred to as IG-43 (42). B-1

Helos with the call sign Knife (K) were CH-53s from the 21st Special Operations Squadron. Normally, their mission is to lift passengers and cargo in logistic support of Air Force units. Helos with the Jolly Green (JG) call sign were HH-53s from the 40th Aerospace Rescue and Recovery Squadron. Normally, their mission is to search for and rescue downed air crewmen and other personnel who are in emergency situations. The HH-53 has an aerial refueling capability; the CH-53 does not.

All the helos were armed with machine guns - 7.62-mm. "miniguns." It appears that most, if not all, had 3 miniguns: one firing out of the port side; one out the starboard side; and one out the aft loading ramp. CH-53 (Knife) helos had 4 Air Force crewmen, although one (K-23) had five. HH-53 (Jolly Green) helos had 5-6 crewmen. Their additional crewmen were generally pararescuers.

Fourteen different helos (7 CH-53s and 7 HH-53s) participated in the Mayaguez operation. One other helo was at Utapao but did not participate because of mechanical difficulties. Another, a CH-53, crashed the night of 13 May while enroute from Nakhom Phanom to Utapao in response to the crisis. Four Air Force crewmen and 19 Air Force Security Police were killed in that crash.

DISCREPANCIES IN ACCOUNTS OF FIRST WAVE ASSAULT ON KOH TANG

Various sources of information about the first wave assault on Koh Tang differ significantly concerning the sequence and timing of the helo losses and troop insertions. In general, command summary message reports, issued within a few days after the operation was completed, differ with on-scene participant statements. The major discrepancies appear in the times K-31 and K-23 were lost and the time the troops from K-32, JG-42, and JG-43 were inserted.

On-scene participant statements place the loss of K-31 and K-23 and troop insertion by K-32, JG-42, and JG-43 between 0600G and 0635G. Other reports place the time of these events between 0640 and 0710G and, in some instances, even later. The latter reports generally use USSAG/7AF reports as a source, including real-time voice reports of the action.

SEQUENCE OF EVENTS RELATING TO HELICOPTER MOVEMENTS

The most complete account of the movement of the Air Force helos is contained in reference B-1. However, each account varies in completeness and detail, and accounts of the JG-13, K-23, and K-31 helos are not included. Since reference B-1

¹ The crews were not available for debriefing at the time reference B-1 was issued.

is the most complete account available, this appendix uses it as a starting point to examine the helo movements and to determine the time the losses, insertions, and extractions occurred.

Table B-1 lists, on the left, sequential events taken from reference B-1 as reported for each first wave helo. On the right, it selects major events from the left and lists the time they occurred, as reported by the references indicated.

The events on the left of table B-1 are accurate (with a few minor exceptions) and logical in that each account fits with reports from other sources. The times the selected events listed on the right occurred vary, in some cases extremely so. (For example, the time of the crash of K-31 ranges from 0600G to 0749G.) The largest discrepancies are related to the first wave assault. By the time of the second wave insertion (midday), major discrepancies between sources as to reference and timing of events was eliminated.

It is felt that our analysis, except where noted, establishes the time (within 5-10 minutes) that the helicopter losses, insertions, and extractions occurred.

FIRST WAVE INSERTION ON KOH TANG

The first wave helos (8 for Koh Tang, accompanied by 3 for Holt) departed Utapao between 0414G and 0425G (reference B-1), which is in general agreement with the time reported in reference B-2 (0416G to 0423G). Planning enroute time for the one-way flight (Utapao to Koh Tang) was 1 hour, 45 minutes. The straight line distance from Utapao to Koh Tang is 190 miles, which requires a speed of 110 knots for a 1 hour, 45 minute enroute time. In any event, all helos in the first wave should have arrived at Koh Tang before 0610G (0425G+1 hour, 45 minutes).

USSAG/7AF 141651Z May scheduled the first wave helos to insert on Koh Tang at 0542G. Figure B-1 shows Koh Tang and the selected landing zones. K-21 and K-22 were to land on the western side; K-31, K-23, K-32, JG-41, JG-42, and JG-43 on the eastern side. From table B-1, K-32 followed K-31 and K-23. Also from table B-1, it appears JG-41, JG-42, and JG-43 were, in that order, to follow closely behind K-31, K-23, and K-32.

K-21

K-21 reports that he arrived at the western landing zone at 0600G. K-21 also reports that while offloading he came under fire, lost an engine, and was subsequently forced to ditch about three quarters of a mile off Koh Tang (table B-1). Reference B-3 and B-4 place the time of ditching at 0614G, reference B-5 at 0622G.

SEQUENCE OF EVENTS BY HELICOPTER First Wave

		Reported times of Selected Events			
lelicopter Call	Events (from Ref.B-1)	Event	Time (C)	Reference	
K-21	Insertion on Koh Tang Island • Arrived LZ (west)	Inserted in Western LZ:	0600	B-1	
	 Cambodians opened fire while off-loading Aircraft hit, one engine out Took off Ditched in water about three quarters of mile off shore 	Ditched:	0614 0614 0622	B - 3 B - 4 B - 5	
K-22	 About 15 seconds behind K-21 Landed in L2 (west) Took off (because of ground fire) without 	Arrived in Western L2:	0550 0600	B-25 B-1	
	 off loading Went back and laid suppressive fire for K-21 Went to location of K-21 ditching 	Departed Koh Tang for Thailand coast:	0630	B-4	
	 Saw K-32 approaching location of K-21 ditching Made run to insert Marines Fired on, hit, loosing fuel Aborted run Headed north JG-11 and JG-12 followed Landed on Thailand coast 	Landed Thailand coast (about 12-20N, 102-10E)	0737 0750	B - 3 B - 1	
K-32	 Started run to land east side behind K-31 & K-23 Saw K-31 explode on beach Saw K-21 coming out from west side Aborted run Watched K-21 ditch 	Inserted in western LZ:	0630 0654	B-8, B-9, B-1 B-4	
	 Extracted 3 crew members of K-21 from water Searched for 1 crew member of K-21 Told (by ABCCC) to insert on west side Hit in hover over LZ (west) 1 AF, 1 USMC wounded. Landed, off-loaded USMC personnel Launched for Utapao 	Arrived Utapao from Koh Tang:	0809 0821	B-12 B-2	
	 JG-12 escorted to Thai Coast (where K-22 landed) Landed Utapao. Aircraft down 				

TABLE B-1 (Cont'd)

First Wave

			Reported times of s	elected events
Helicopter Call	Events (from Ref. B-1)	Event	Time (G)	Reference
	Insertion on Koh Tang Island			
K - 31	● Crashed at waters edge east LZ	Crashed:	0500 0600 0600-0610 before 0615 before 0630 after 0640 0712 0749	B-6 B-15 B-1 B-7 B-8, B-9, E-10, B-6 B-3 B-5
K-23	• Crashed on beach in LZ, east side	Crashed and inserted in eastern LZ:	0600 0605 0605 0605-0615 before 0630 0636 0639 after 0640 0655	B-1S B-11 B-18 B-7 B-8, B-9, B-10 B-1 B-5 B-6 B-3
JG-41	 On final approach to LZ (east) Saw Knife aircraft explode and another leave island and ditch Aborted run Refueled Order (by ABCCC) to insert in west LZ Made insertion attempt, received heavy fire 	Inserted in western LZ (22 Marines): Attempt to insert (5 Marines),	after 0830 0900 1010 to 1047	B-1, B-13 B-8, B-9, B-10
	 Aborted Held about 5 miles west while TacAir suppressed enemy fire Made insertion attempt Aborted Made insertion attempt Aborted Spectre called in and provided suppressive fire 	pick up WIA:		

TABLE B-1 (Cont'd)

First Wave

	11 - 3 2			Reported times of selected events		
	Helicopter Call	Events (from Ref. B-1)	Event	Time (G)	Reference	
	,	Insertion on Koh Tang Island				
	JG-41 (cont [†] d)	 Made insertion attempt, landed Off loaded 22 Marines (out of 27 aboard) Took off with five Marines still aboard Made insertion attempt to off load 5 Marines and pick up 6 WIA Attempt not successful Refueled Returned to Utapao, aircraft down 				
ם י	JG-42	 Arrived off Koh Tang Island at 0530 Refueled Told by ABCCC two helos were down Went into southernmost LZ (west) Off-loaded 28 Marines Intense ground fire Refueled and returned to Utapao. Aircraft down. 	Inserted in western LZ:	0620 before 0630 0708 to 0739 0647 to 0715	B-14 B-8, B-9, B-10 B-4 B-6	
	JG-43	 Approach to western LZ Intense ground fire Aborted Made second run Made 2nd insertion attempt Landed, off-loaded 29 Marines Returned to Utapao Assumed call sign of JG-42 for short while 	Inserted (1200 meters south of western LZ):	0615 before 0630 0635 0647 to 0715	B-15 B-8, B-9, B-10 B-16 B-6	

B-6

TABLE B-1 (Cont'd)

INSERTION OF BOARDING PARTY ON HOLT

			Reported times of selected events		
Не	Call	Events (from Ref. B-1)	Event	Time (G)	Reference
	JG-11	 Off loaded Marines to Holt Directed to escort K-22 to Thailand mainland Picked up 22 Marines form K-22 (on Thai coast) and returned to Utapao 	Inserted on Holt	0550 to 0624 by 0615	B-1 B-17
B-7	JG-12	 Flew to USS Holt with JG-11 and JG-13 Discharged passengers (27 Marines) at 0550G Directed to remain in area for SAR Refueled Directed rendezvous with K-22 and K-32 Escorted K-32 to Thai coast where K-22 had landed K-32 continued to Utapao JG-12 stayed with JG-11 while JG-11 picked up Marines from K-22 Continued to Utapao 	Inserted on Holt	0550 to 0624 by 0615	B-1 B-17
	JG-13	 Events not available after insertion on Holt. Returned to Utapao via Thai coast. No other activity noted. Aircraft down at Utapao 	Inserted on Holt Rescue attempt of K-23 person- nel	0550 to 0624 by 0615 Shortly after 0810	B-1 B-17 B-26

KOH TANG

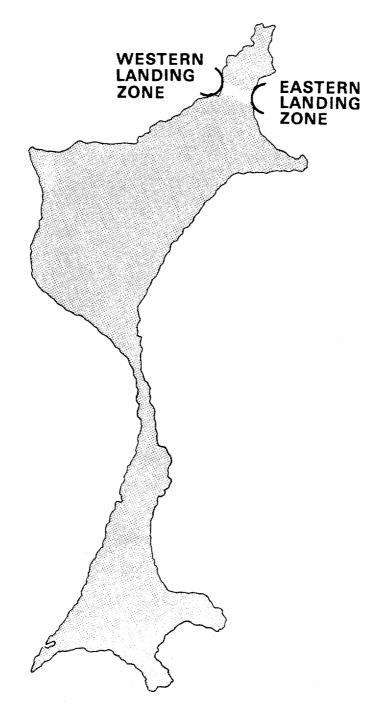


FIG.B-1: LANDING ZONES ON KOH TANG

Reference B-1 reports the first helicopter insertion on the west side at 0600G; references B-4 and B-6 indicate the first occurred about 0605G (which could have been by either K-21 or K-23, as the zone is not specified).

Based on reference B-1 and the reported ditching at 0614G, it appears K-21 off-loaded Marines in the landing zone at about 0600/05G and that this was the first insertion on Koh Tang. (Note: K-23 probably inserted on the eastern side at approximately the same time.)

K-22

(U) K-22 was with K-21 and landed in the western landing zone very shortly (15 seconds, table B-1) after K-21. Because of ground fire, K-22 took off without disembarking its troops, went to the scene where K-21 ditched, returned to the landing zone, and attempted another run. At this point K-22 was hit, began losing fuel, and headed north for Thailand with its troops still aboard. Reference B-1 reports K-22 landed on the Thailand coast at 0750G, while reference B-3 states it was 0737G; the approximate location was 12°20′ N/102°10′ E about 135 miles from Koh Tang. If K-22 used a speed of 110 knots, he departed Koh Tang between 0623G and 0636G. Reference B-4 indicates that K-22 was losing fuel at 0630G, which indicates it was hit before that time.

An 0630G (or earlier) departure from Koh Tang is compatible with the K-22 statement in table B-1 that JG-11 and JG-12 followed (about 10 minutes behind). JG-11 and JG-12 completed their insertion on Holt about 0610-15G; JG-12 states he then refueled prior to being designated to escort K-22 and K-32. This would place JG-12's departure from the Koh Tang area at about 0630, behind K-22.

K-31

K-31 was leading K-23 and K-32 into the eastern landing zone. K-32 states (table B-1) that he saw K-31 explode and then saw K-21 coming out from the western landing zone, which places the hits and loss of K-31 between 0600G and about 0610G. IG-41 also reports (table B-1) that on his first approach to the eastern landing zone, he saw a Knife aircraft explode and another leave the island and ditch. Karen (flight of 3 A-7Ds, reference B-7) reports he was directed at 0605G by the Airborne Command and Control Center (call sign Cricket) to assume on-scene SAR commander. Karen also reports he had contact with K-23 and K-31 survivors but that time is not recorded. Karen does state he strafed the beach (0615-0715G) in support of the K-23 personnel. A Marine Corps Command Center (MCCC) working paper chronology shows helo status as of 0605G as 1 helo down and burning in the water, with one Air Force crewman WIA. References B-8, B-9, and B-10 state that K-31 was shot down before 0630G. Other sources report the loss occurred about 0700G or later: reference B-3 reports 0712G, based on USSAG/7AF 151450Z (it is possible that it was meant to be 0612G); reference B-5 reports 0745G; and reference B-6 reports it was after 0640G. A passenger on K-31, Capt. T. Tonkin, USMC, stated during a phone conversation in October 1976 that they

were shot down at 0600G. His statement plus the reports from other participants leads to the conclusion that K-31 was shot down at 0600G, or a few minutes thereafter.

K-23

K-23 was hit in the eastern landing zone while in a hover. The aircraft crashed and battle damage prevented its takeoff. References B-7, B-8, and B-10 indicate the time was about 0600G, or close thereto, as does the MCCC working paper chronology. Reference B-11, an A-7D OpRep-4, states that at 0600G he was directed by Cricket to assume on-scene commander for the downed K-23. In a taped interview, the 3rd Platoon Commander, "G" Co., who was aboard K-23, states that he saw a helicopter explode (K-31), and then his helicopter was almost immediately shot down from its hover over the landing zone. His statement indicates that K-23 was lost very shortly after 0600G (the K-31 time of loss as discussed above). Contrary to those times, reference B-1 states that first insertion on the east side of Koh Tang (delayed due to ground fire) was at 0636G. As K-23 was the first and only insertion on the east side, reference B-1 indicates time of loss as 0636G. Reference B-5 indicates the time of K-23 loss as 0639G and reference B-3, based on Utapao Command Post 151715Z, states the loss occurred at 0655G. Reference B-6 reports the time of loss as after 0640G.

The available evidence strongly indicates that K-23 was in the eastern landing zone at about the same time, or shortly after, K-31 was hit and downed, i.e., about 0600G. K-23 was then hit and crashed.

K-32

K-32 followed K-31 and K-23 on the first insertion attempt to the eastern landing zone, saw K-31 explode, aborted his run, and proceeded to the scene where K-21 ditched (table B-1). K-32 extracted three of K-21's Air Force crewmen from the water and searched for a fourth; how long is not stated in reference B-1. Cricket then directed K-32 to insert on the western side. While in the landing zone or hovering over it, K-32 took hits resulting in 2 WIA (1 Air Force crewman and 1 Marine). After offloading its troops, K-32 proceeded to Utapao with the 2 WIA aboard. JG-12 states (table B-1) he escorted K-32 as far as the K-22 location on the Thailand coast; from there, K-32 went on to Utapao unescorted.

Reference B-4 indicates that K-32 inserted at 0654G; reference B-2 states the first helo (K-32) returned to Utapao at 0821G with WIA; and reference B-12 states that K-32 arrived at Utapao at 0809G. K-32's route to Utapao was about 210 n.mi. Assuming the 0809G arrival time at Utapao is correct, then K-32 had to use an average enroute speed of 168 knots if he inserted at 0654G. If K-32 arrived at 0821G, he had to have used an average cruise speed of 145 knots. Because the maximum cruise speed of the CH-53 is about 150 knots, an average cruise speed of 168 knots is not possible, and 145 knots seems unlikely. These calculations indicate K-32 inserted before 0654G.

CinCPacAF 172340Z reports a total of 5 Air Force personnel WIA on 15 May: 1 on K-23, who was wounded while running for the tree line after K-23 crashed in the landing zone; 1 on K-32; 2 on K-31, who were wounded when K-31 exploded; and 1 on JG-12. Reference B-4 notes that at 0605G "one" was injured in the landing zone in landing. Reference B-6 reports that at 0609G K-22 received small arms fire while in the landing zone, and one mechanic was wounded. It does not appear that of the 3 WIA on the K-23 and K-31, one could have been reported as early as 0605/0609G. The 1 WIA on JG-12 occurred about 1815G. This leaves the 1 Air Force WIA on the K-32 as the possible WIA referred to in references B-4 and B-6. If the helicopter with an Air Force WIA at 0605/0609G was erroneously reported as K-22 (which had no Air Force WIA) rather than K-32, then K-32 inserted about that time.

Marine Corps participants state that K-32 inserted his troops before JG-42 (references B-9 and B-10). There are contradictory reports, however, concerning the time JG-42 inserted his troops -- after 0655G or before 0630G. The times of insertion of K-32 and JG-42 are examined more closely after a discussion of JG-41, JG-42, and JG-43.

JG-41

JG-41 was on his final approach to the eastern landing zone when he saw K-31 explode (0600G) and K-21 ditch (0614G) (table B-1). He aborted, refueled, and made an attempt to insert on the west side. This run was also aborted. JG-41 then held in orbit while TacAir suppressed enemy fire. This TacAir attack, probably by F-4s and A-7s, was reported about 0810G. JG-41 then made two attempts to insert, which were aborted. Spectra 61, an AC-130 gunship, was called in, its first time on target was 0830G (reference B-13). JG-41 then made an insertion attempt and offloaded 22 of the 27 Marines aboard before being driven off. References B-8 and B-9 put the time at about 0900G, which is compatible with the Spectra attack at 0830G.

JG-41 made another attempt to insert the remainder of its troops (5 Marines) and evacuate the WIA from the beach. Although not mentioned in reference B-1, this attempt apparently followed another Spectra 61 attack commencing at 0940G (reference B-13). Reference B-4 indicates JG-41 was in-bound at 1010G for medivac from Koh Tang with Spectra cover. This attempt was unsuccessful.

JG-41 then refueled and returned to Utapao. Allowing a few minutes for the last attempt at about 1010G (JG-41 reported he got to the landing zone and indicates he actually touched down) and some 15 minutes to refuel would indicate that JG-41 departed Koh Tang for Utapao after 1030G.

JG-42

JG-42 was apparently with JG-41 and 43 on the first approach to the eastern landing zone about 0600G. JG-42 does not mention a first aborted run to the eastern landing

zone (when K-31 was shot down). JG-42 does state he refueled after arriving at the island, which agrees with JG-41's report of refueling (table B-1). It should be noted that JG-12 and possibly JG-11 and 13 were also apparently refueling at about this time. (Up to six helicopters, JG-11, 12, 13, 41, 42, and 43, could have been refueling between 0610 and about 0645G.)

Reference B-14 reports a JG-42 insertion time of 0620G. Participants state that JG-42 had inserted his troops before 0630G (references B-8, B-9, and B-10). However, reference B-4 indicates a flight of three helicopters, JG-41, JG-42, and JG-43, were inserting at 0708G. Reference B-6 indicates that JG-42 and JG-43 inserted after 0647 and before 0715G.

JG-43

JG-43 states he made an approach to the western landing zone, aborted, made a second attempt that was successful, offloaded 29 Marines, and returned to Utapao. This insertion was 1,200 meters south of the western landing zone (references B-8, B-9, and B-10). Also, JG-43 does not mention refueling. It would seem, however, that JG-43 did refuel at least once and perhaps twice as JG-42 did.

As was the case with K-32 and JG-42, there is a significant difference in the reported times of insertion for JG-43. Reference B-15 indicates insertion about 0615G; reference B-8, B-9, and B-10 no later than 0630G; reference B-16 at 0635G; reference B-4 at about 0708G; and reference B-6 between 0645G and 0715G.

Insertion Times Of K-32, JG-42, And JG-43

The reported insertion times of K-32, JG-42, and JG-43 fall into two general time frames: from about 0645 to 0715G, or from about 0615 to 0630G. However, there seems to be no disagreement with the order of their insertion; K-32 was first followed by JG-42, then JG-43.

The reports that indicate these helos inserted between 0645 and 0715G are apparently based on the real-time voice reports of the action by ComUSSAG/7AF and ABCCC to CinCPac and the National Command Center in Washington. Reference B-4 and a Head-quarters, Marine Corps Command Center working paper chronology indicate that these three helos inserted their troops between 0650 and 0710G. A chronology of events in the JCS After-Action Report (reference B-6), also apparently based on the real-time reporting, indicates JG-42 and JG-43 inserted after 0647G and before 0715G.

Based on the statements of participants at the island, there is strong evidence that these 3 helos inserted before 0630G. The Executive Officer, Company G, in helo JG-42 states that he was inserted before 0630G (reference B-10). The Commanding Officer of BLT/29 (CTU 79.9.1) in helo JG-43 states that he was inserted no later than 0630G

(references B-8 and B-9). JG-42's OpRep-4 (reference B-14) indicates that he inserted his troops at 0620G; JG-43's OpRep-4 (reference B-16) indicates insertion at 0635G.

In an attempt to resolve the approximately 30-45 minute difference in the insertion times outlined above, we examined reports of the number of Marines on the island. The HQMC Command Center working paper chronology and reference B-6 each report that at 0655 and 0645G, respectively, about 100 Marines were on the island. Table B-2 shows the number of Marines on the island (inserted by the five helos listed) sometime before 0715G. It can be seen that there were 109 Marines on the island, which is in approximate agreement with the reported number of 100. However, both the HQMC Command Center working paper and reference B-6 report two helos inserting Marines after their initial report of 100 USMC on the island. The working paper notes a report that at 0705G two helos landed and discharged their Marines bringing the total to 150 Marines on the island. Reference B-6 notes that at 0647G, CinCPac verbally ordered Knife (apparently Jolly Green was meant) 42 and 43 to land on the island. Reference B-6 also noted that the first wave insertion was completed about 0715G, indicating helos did land after 0647G. There is no mention of JG-41 inserting about 0900G.

TABLE B-2
BUILDUP IN TROOP STRENGTH

			Location	
Helo call	Time (G)	Western zone	1,200 meters south of western zone	Eastern zone
K-21 K-23	0600/05 0600/05	20		20
K-32	?	13		
JG-42	?	27		
JG-43	?		29	
Total		60	29	20

As the maximum number of Marines on the island was 109 until 0900G when JG-41 inserted, either the report at about 0650G of 100 Marines or the reports shortly thereafter of 2 helos yet to insert is incorrect.

It is apparent that during the early action the time between an event occurring and being reported was significant. An example is the time of loss of K-23 and K-31. The loss of these 2 helos is reported in the after-action summaries as occurring from 40-70 minutes after our reconstructed time of about 0600G. Based on the above discussion, this study believes that regarding the reported insertion times of K-32, JG-42, and JG-43, this is what occurred: These three helos inserted their troops about 0630G or earlier as stated by the on-scene participants and not at 0650 to 0710G as indicated in sources basing their times on the real-time voice reports of the action. This study therefore uses the insertion times listed below for the 3 helos:

Helicopter	Insertion Time
K-32	0615-20
JG-42	0620-30
JG-43	0625-30

SUMMARY OF MAJOR DIFFERENCES IN TIMES OF FIRST WAVE HELICOPTER LOSSES AND/OR INSERTION OF TROOPS

We have examined each helicopter involved in the first wave assault on Koh Tang. As noted, there are major discrepancies among the sources as to the reported times the events occurred. Generally these sources tend to fall into two groups, each group reflecting an approximate but generally agreed upon set of times.

The first group consists of statements by participants at the island. The second group consists of reports generally based on a USSAG/7AF source, including real-time voice reports of the action. In our previous analysis, we reached the conclusion that the times based on participant statements more nearly reflect the actual times.

Table B-3 reconstructs the times of the first wave helicopter losses and/or insertion of troops, based on each of the groups described above. The number of troops inserted by each helicopter is also shown. These numbers were derived from separate calculations, based on all sources of information.

From table B-3, participant statements indicate the first wave assault was completed at 0630G, except for the JG-41 insertion at 0900G. On the other hand, reconstruction of the times based on USSAG/7AF sources indicate that after the one insertion by K-21 at 0600G, no other troops were inserted until about 0645G. The first wave assault was completed by 0715G (reference B-6 states the first wave was completed by

TABLE B-3

RECONSTRUCTION OF TIMES OF HELICOPTER LOSS AND/OR INSERTION OF TROOPS FIRST WAVE

	Based on parti	cipant stateme	ents		. USSAG/7AF	sources	
Helo	Approximate time (G)	Number troops inserted	<u>LZ</u>	<u>Helo</u>	Approximate time (G)	Number troops inserted	<u>LZ</u>
K-21 ^a	0600	20	West	K-21 ^a	0600	20	West
K-31b	0600/05	0	East				
K-23 ^b	0600/05	20	East .				
K-22	aborted			K - 22	aborted		
K-32	0615/20	13	West				
JG-42	0620/30	27	West				
JG-43	0625/30	29	West ^C	1.			
				K-23 ^b	0645/55	20	Last
		•		K-32	0650/55	13	West
				K-31 ^b	0700/0710	0	East
				. JG-42	. 0705/0710	27	West
				JG-43	0705/0710	29	West ^C
				JG-41	0715	22	West
JG-41	0900	22	West				

^aDitched after offloading troops

b_{Shot down}

^CInserted 1,200 meters south of western landing zone.

0715G, and that approximately 180 troops had been landed). If these times approximate the actual times, then only 20 Marines were on the island for 45 minutes or longer. It is felt that had this been the case, the Marine participants would have been well aware of the situation and made notes of it in their statements.

Accepting the time of helo losses and insertion based on participant statements (table B-3), which this study concludes more accurately reflects the actual times, means that CinCPac and the JCS were receiving and acting on situation reports that had been overtaken by events. For example, JG-42 and JG-43 were reported as having landed some 30 minutes after they had already landed their troops (reference B-4 and B-6).

INSERTION OF BOARDING PARTY ON HOLT

Reference B-1 reports the insertion on Holt commenced at 0550G and was completed by 0624G; reference B-17 reports the boarding force was embarked by 0615G; and reference B-18 reports that at 0630G the embarkation was complete, and the Holt was closing on the Mayaguez at 25 knots.

The helos inserting on Holt (JG-11, 12, 13) were the first to depart Utapao (about 0415G), and Holt was about 12 miles closer to Utapao than Koh Tang (reference B-17 states that Holt was on station 12 miles NW of Koh Tang at 0445G). Therefore, insertion could have commenced on Holt as early as 0550G. The boarding party appears to have been embarked on Holt between 0615G and 0624G, and Holt was enroute to the Mayaguez by about 0630G.

JG-11 And JG-12

JG-11 and 12 inserted the boarding party on Holt as discussed above, and then escorted K-32 to the Thai coast, following behind K-22. They picked up the passengers and crew of K-22 and were enroute to Utapao when directed to return the crew to K-22 (table B-1). K-22 states its crew was back at about 0900G. JG-11 and 12 should therefore have arrived at Utapao about 0940G (Utapao is about 75 miles from the reported location of K-22). JG-11 and 12 then participated in the second wave.

JG-13

An account of JG-13 is not available in reference B-1. Reference B-1 does state that JG-13 proceeded from Utapao to Holt to the Thai coast to Utapao, and that JG-13 was damaged on return to Utapao. Reference B-19 reports JG-13 had "30-35 holes." CinCPacAF 172340Z May reports that JG-13 landed at Rayong, Thailand with battle damage. Repairs were made at Rayong, and the helo later flew to Utapao. The Rotor (3 A-7D) OpRep-4 states that JG-13 made a rescue attempt of K-23 personnel shortly after 0810G and received battle damage. From these accounts, JG-13 attempted, after insertion on Holt, to rescue K-23 personnel (eastern landing zone), received battle

damage in the unsuccessful attempt, and proceeded to return to base, making a forced landing at Rayong, Thailand (10-15 miles from Utapao).

SECOND WAVE INSERTION ON KOH TANG

Five helicopters participated in the second wave: JG-11, JG-12, K-51, K-52, and JG-43(42). JG-43, on returning to Utapao from the first wave, assumed the call sign of JG-42. Subsequent mention of this helicopter is referred to in this study as JG-43(42). It should be noted that of the eight helos inserting the first wave on Koh Tang, JG-43(42) was the only helo capable of continuing operations.

Reference B-2 states that the first two helos relaunched (second wave) from Utapao at 0933G, the second two at 0959G, and a fifth helo launched at 1011G.

(U) The following accounts are from reference B-1.

K-52

K-52 states that he departed Utapao at 0930G (apparently one of the two helos departing at 0933G) and arrived at Koh Tang at 1130G. At Koh Tang, K-52 held in an orbit north of the island. At 1208G, Cricket directed K-52 (and JG-43(42) and K-51) to insert in the eastern landing zone. K-51 was behind K-52 and JG-43(42). Ground fire caused K-52 to abort the run. Losing fuel, K-52 headed for Utapao via the Thailand coast. K-51 and JG-12 joined K-52 after inserting in the western landing zone. K-52 proceeded to the Thai coast near the K-22 location and made a forced landing. JG-12 then transferred the passengers from K-52 to Utapao.

JG-43(42)

In reference B-1, JG-43(42) does not give the time it returned to Utapao from the first wave assault on Koh Tang. If he departed Koh Tang about 0630G, as reconstructed in the first wave insertion above, he could have arrived (via the Thailand coast route (210 miles) at a speed of 120 knots) at about 0815G. By process of elimination, JG-43(42) is the second helo that launched at 0933G, in addition to K-52 (see the discussion of K-51, JG-11, and JG-12 below). JG-43(42) should have arrived in the Koh Tang area about 1130G with K-52 and held in an orbit. An insertion attempt was made on the eastern side with K-51 and K-52 shortly after 1208G. This run was aborted. JG-43(42) then inserted on the west side, followed by K-51. This insertion occurred after 1208G; reference B-4 indicates it was before 1233G. Based on the above, it appears to have been between about 1210G and 1230G. JG-43(42), after insertion, refueled and remained in the Koh Tang area for SAR duties.

K-51

K-51 was down for mechanical problems at Utapao until 150720G. K-51, first launched from Utapao to assist K-22 in returning from the first wave, was diverted

to Koh Tang, then diverted back to Utapao when about three quarters of the way to Koh Tang--a distance of about 300 miles, placing K-51's return to Utapao between 0920G and 0950G. K-51, the fifth aircraft to launch, apparently departed Utapao in the second wave at 1010G. At Koh Tang, K-51 joined K-52 and JG-43(42) about 1155 or 1200G (based on a 1 hour, 45 minute enroute time). K-51 aborted his first insertion attempt (with K-52 and JG-43(42) to the eastern landing zone), then followed JG-43(42) into the western landing zone. The time of insertion was about 1215/30G, as discussed under JG-43(42). While in the landing zone, K-51 picked up 5 WIA Marines. K-51 joined K-52 and JG-12, proceeded to the Thai coast, then "as quick as possible" to Utapao. Estimated time of arrival at Utapao is about 1415G, based on an estimated 1230G departure from Koh Tang.

JG-11 And JG-12

JG-11 and 12 returned to Utapao about 0940G after the boarding party insertion on Holt. They were probably the 2 in the second wave that departed at 0959G. JG-12 states he was back in the second wave at Koh Tang at approximately 1130G. The times provide approximately 20 minutes for JG-11 and 12 to turn around at Utapao for the second wave and 1 hour and 30 minutes enroute time to Koh Tang, equivalent to about a 140-knot cruise speed. (The estimated time of arrival at Utapao is based on a K-22 statement - an error of 10 minutes would result in a slower cruise speed or longer turnaround time.) JG-11 and 12 were then directed to insert on the western side. Reference B-20 indicates insertion was at 1200G. While in the landing zone, JG-12 embarked 1 WIA Marine, then escorted K-52 to Thailand and loaded its passengers after K-52 had made a forced landing; JG-12 then returned to Utapao, arriving at Utapao at 1440G (reference B-1). JG-11, after insertion, refueled and remained in the Koh Tang area.

EXTRACTION FROM KOH TANG

The first extraction attempt was after 0810G when JG-13 was damaged attempting to rescue K-23 personnel. A second extraction attempt, also unsuccessful, was made at about 1415G. This extraction attempt was also to pick up the passengers and crew (25 personnel) of K-23 from the eastern landing zone. At 1415G, 2 helos were in the Koh Tang area -- JG-11 and JG-43(42). Successful extraction attempts began about 1800G with 5 Air Force helos in the Koh Tang area -- JG-11, JG-12, JG-43(42), K-51, and JG-44. In addition, 2 Navy SH-3 helos were launched at 1610G from the Coral Sea to assist, but they did not participate in the extractions.

JG-43(42)

JG-43(42) remained in the area after the second wave insertion. JG-43(42) states that at 1415G they were directed to extract the passengers and crew of K-23 in the eastern landing zone (reference B-1). They were covered by JG-11, who also remained in the area after the second wave insertion. JG-43(42) received battle damage during this extraction attempt, lost one engine, and proceeded to the Coral Sea (which at 1415G was

about 90 miles from Koh Tang (CTG 77 150856Z)) escorted by JG-11. JG-43(42) and JG-11 arrived at the Coral Sea at 1530G (CTF 77 150840Z May). Battle damage to JG-43(42) was repaired and he launched from the Coral Sea about 1710G for Koh Tang to participate in the extraction. At that time, Coral Sea was about 25-30 miles from Koh Tang (CTF 77 150957Z May). JG-43(42) was the third helo to extract personnel from the island (the second on the western side). At 1909G, JG-43(42) picked up 54 personnel from the western landing zone and transferred them to the Coral Sea (references B-1 and B-4).

JG-11

JG-11 departed the Coral Sea for Koh Tang at 1610G in company with 2 SH-3Gs (CTF 77 150914Z May). JG-11 states that he, JG-43(42), and JG-12 "worked area" for approximately 90 minutes under the control of Nail 68 (an OV-10) and was finally able to pick up the K-23 crew and Marines (reference B-21). Reference B-1 states that extraction was at 1815G; reference B-4 between 1808 and 1812G. Reference B-4 also indicates JG-11 landed at 1827G on the Coral Sea, which was about 10 miles from Koh Tang. Reference B-1 reports that 25 were extracted. CTF 77 reports that JG-11 was on board the Coral Sea at 1828G and that 5 Air Force crewmen and 20 Marines were debarked (CTF 77 151140Z). JG-11 refueled and departed the Coral Sea at 1845G (CTF 77 151148Z May).

JG-12

JG-12 arrived at Utapao from the second wave at 1440G. They departed for the Coral Sea at 1545G with 14 Air Force passengers (a relief flight crew and maintenance personnel). JG-12 arrived at Coral Sea at 1725G and departed for Koh Tang at 1735G, after disembarking passengers (CTF 151040Z May). JG-12 states that after the TacAir strikes, he hovered over K-23 for approximately 2 minutes to determine if any survivors were aboard (after JG-11 picked up the K-23 crew and Marines). They were covered by K-51 and a boat from the Wilson (reference B-1). At this point, JG-12 was hit; reference B-4 indicates the time as 1822G. JG-12 proceeded to the Coral Sea and arrived at 1904G (reference B-4), where the aircraft was down for battle damage.

K-51

After participating in the second wave, it is estimated K-51 arrived at Utapao about 1400G. K-51 was down with hydraulic problems on arrival. After repair, it launched with fuel and other items for K-52, which was down on the Thai coast, then proceeded to Koh Tang (reference B-1). Reference B-4 indicates K-51 had departed Utapao before 1605G and was expected to be in an orbit off Koh Tang at 1755G. At Koh Tang, K-51 extracted 44 personnel from the western landing zone about 1854G (reference B-4); this was the first extraction from the west. The personnel were transferred to the Coral Sea and K-51 returned to Koh Tang for the last extraction of 29 personnel; reference B-4 indicates it was at 2010 or 2011G. Reference B-3 and B-5 report extraction completed at 2020G.

JG-44

JG-44 did not participate in the first or second wave. Reference B-1 states that it arrived at Utapao from Nakhom Phanom on 15 May but does not provide the time. JG-44 launched from Utapao at 1615G for the Coral Sea. While enroute, it was diverted to Koh Tang and joined with JG-43(42). An enroute time of 1 hour, 45 minutes results in an arrival time at Koh Tang about 1800G. At Koh Tang, JG-44 followed JG-43(42) into the western landing zone, picked up 34 personnel, and delivered them to the Holt. As the JG-43(42) extraction was about 1909G, the JG-44 extraction was probably about 1910 to 1915G. JG-44 then returned to Koh Tang and extracted 40 more personnel from the western landing zone (reference B-4 indicates the time was about 1936G) and delivered them to the Coral Sea. Reference B-1 then states JG-44 returned to the island; however, extraction had been completed. JG-44 was directed to join JG-43(42) and to return to Utapao.

TIME CHART OF HELICOPTER MOVEMENTS

The reconstruction of the movements of each helicopter on 15 May is shown graphically in figure B-2 (first wave and insertion of the boarding party) and B-3 (second wave and extraction).

PERSONNEL ACCOUNTING

Personnel of BLT 2/9 and Co. D, BLT 1/4, that participated in the Koh Tang assault and boarding of the Mayaguez were in four locations after the action was over: USS Coral Sea, USS Holt, USS Wilson, and Utapao Air Base.

Under the circumstances, personnel accounting was extremely difficult. Table B-4 summarizes the number of personnel in the assault forces, including the Air Force personnel involved in the three helicopter combat losses. Table B-4 is based on the following references and messages: references B-1, B-4, B-17, B-22, B-23, and B-24; Coral Sea messages 152005Z and 160608Z; Holt message 152223Z; Wilson message 151550Z; and BLT 1/4 message 241410Z. All message DTGs are May 1975.

From table B-4, 231 troops were inserted on Koh Tang, including the 20 Marines (in K-23) who were isolated all day in the eastern landing zone. Of these, 6 WIA were evacuated at noon by second wave helos and 4 were KIA on the island.

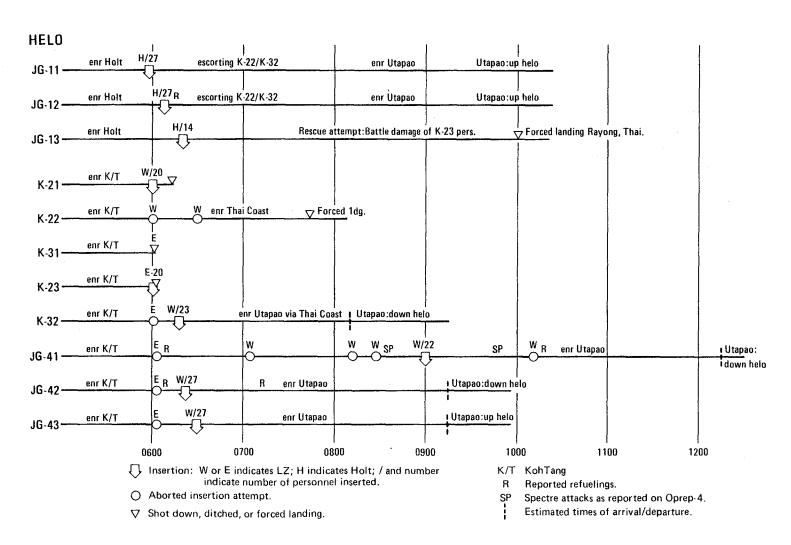


FIG. B-2: FIRST WAVE

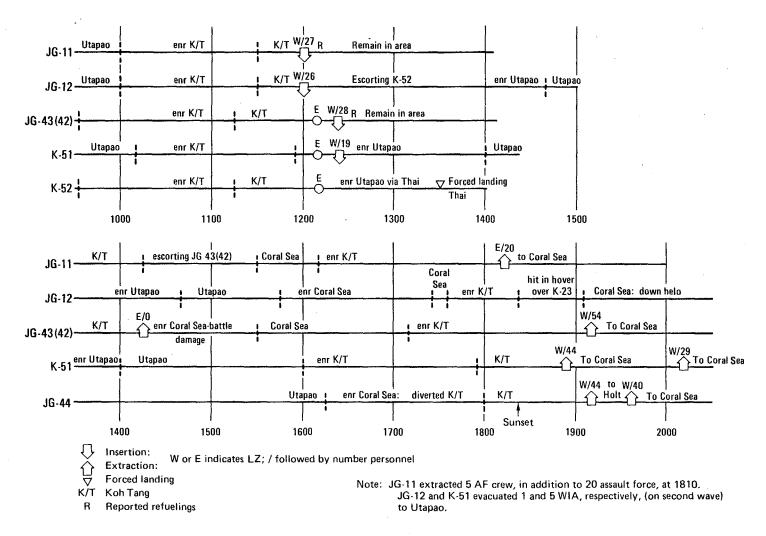


FIG. B-3: SECOND WAVE AND EXTRACTION

TABLE B-4

PERSONNEL ACCOUNTING: ASSAULT ON KOH TANG AND BOARDING OF MAYAGUEZ

		Number of	
		personne1	Remarks
Α.	Assault on Koh Tang. BLT 2/9		
	First wave Total in wave	180	Includes 3 U.S. Army Linguists
	Total inserted	131	Plus 5 AF crewmen of K-23
	Second wave Total in wave Total inserted	127 100	
В.	Mayaguez Boarding Party. Co. D, BLT 1/4 AF EOD MSC USA Total	59 2 6 1 68	Linguist
C.	Evacuated from Koh Tang. WIA evacuated to Utapao by second wave helos	6	
	By helo to Coral Sea By helo to Holt Total	$\frac{187}{34}$ $\frac{34}{227}$	Plus 5 AF crewmen of K-23
D.	Killed in action. In K-21 crash ^b In K-31 crash ^c	1 10 2 1	AF crewmen USMC Navy Corpsmen AF crewmen
	Ground combat on island Total	$\frac{4}{18}$	USMC
		B - 23	

TABLE B-4 (Cont'd)

	Number of personnel	Remarks
E. In assault but not inserted.		
First wave		
WIA on K-32 Did not disembark, K-32 Partial insertion, JG-41 Aborted insertion K-22 Crashed, K-31	$ \begin{array}{c} 1 \\ 1 \\ 5 \\ 20 \\ \underline{22} \end{array} $	Linguist
Total	49	
Second wave		
Aborted insertion, K-52	27	

 $^{^{\}mathbf{a}}$ 1 KIA and 3 MIA (later KIA) not evacuated.

 $^{^{\}rm b}$ 3 AF crewmen recovered from water by K-32.

 $^{^{\}mathrm{c}}$ 10 USMC and 3 AF crewmen recovered from water by Wilson.

d 19 of these 20, on return to Utapao, embarked on K-51 and were inserted in second wave.

REFERENCES

- B-1. 56th SOW 191200Z (S)
- B-2. CTG 79.9 151138Z (S)
- B-3. CinCPac 180210Z (S) (Refers to USSAG/7AF 151450Z (S) and Utapao Command Post 151715Z (S))
- B-4. FMFPac transcript of taped conversations between ComUSSAG/7AF, CinCPac, CinCPacAF, CinCPacFlt, NMCC (Rough draft)
- B-5. USSAG/7AF 151850Z (S)
- B-6. Joint Chief of Staff After-Action Report, Volume I and II no date (TS)
- B-7. 388 TFW Korat 150230Z (C) (OpRep-4, Karen Flight, A-7D)
- B-8. Press Interview with Co. BLT 2/9 at Subic Bay, Phillippine Islands on 19 May 1975 (U)
- B-9. Interview with Co. BLT 2/9 (CTU 79.9.1) on 2 March 1976
- B-10. Interview with Executive Officer, Co. G, BLT 2/9 on 3 March 1976
- B-11. 388 TFW Korat 150515Z (C) (OpRep-4, Dennis 2, A-7D)
- B-12. Utapao Command Post 150230Z (S)
- B-13. 388 TFW Korat 150650Z (C) (OpRep-4, Spectra 61)
- B-14. Utapao Command Post 150800Z (S) (OpRep-4, JG-42)
- B-15. Navy Times of 27 August 1975 (Interview with Co. BLT 2/9) (U)
- B-16. Utapao Command Post 152002Z (S) (OpRep-4, IG-43)
- B-17. CTU 79.9.2 (Officer in Charge, Boarding Party) 160837Z (S)
- B-18. CinCPacFlt 171727Z (S)
- B-19. USSAG/7AF 161500Z (S)
- B-20. Utapao Command Post 151042Z (S) (OpRep-4, JG-12)

REFERENCES (Cont'd)

- B-21. Utapao Command Post 152004Z (S) (OpRep-4, JG-11)
- B-22. CG Third MarDiv 250507Z (U)
- B-23. CTG 79.9 151740Z (S)
- B-24. Utapao Command Post 150802Z (S) (OpRep-4, JG-41)
- B-25. Utapao Command Post 151041Z (S) (OpRep-4, K-22)
- B-26. 388 TFW Korat 151030Z (C) (OpRep-4, Rotar flight, A-7D)

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19. KEY WORDS (Continue on reverse elde it necessary and identity by block number)

Cambodia, emergencies, evacuation, international incidents, Mayaguez, recovery, response, sea rescues

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This study examines the U.S. Marine Corps/Navy response to the Mayaguez and her crew, and the assault on Koh Tang. The military operations related to the events are analyzed to determine what lessons may be learned for future application.

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