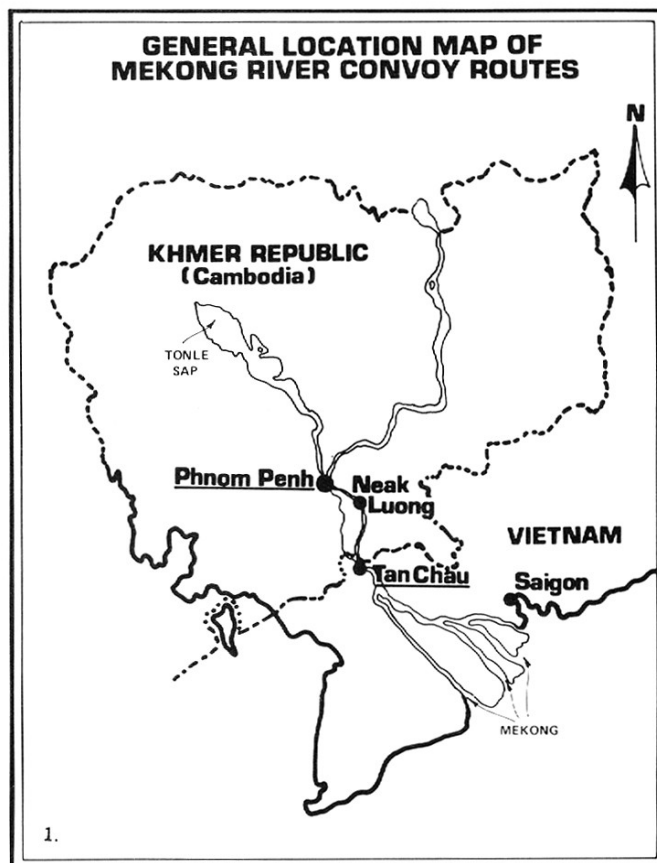


# \*Air Power and the Protection of Mekong River Convoys

by William A. Mitchell, Major, USAF

In early January 1971, the American Embassy in Phnom Penh, Khmer Republic (Cambodia) expressed considerable concern over the fuel shortages of petroleum, oil and lubricants which had resulted from enemy attacks on commercial shipping vessels traveling on the Mekong River within Cambodia.<sup>1</sup> These attacks, combined with the closure of land Route 4 from the port city of Kompong Som, led to an agreement among the United States of America, Cambodia, and the Republic of Vietnam for protection of Mekong River convoys from the town of Tan Chau, on the Vietnamese border, to Phnom Penh, Cambodia.<sup>2</sup>

<sup>1</sup>The views expressed in this article are those of the author and do not necessarily reflect the opinion of the USAF Academy or the United States government.



This article discusses the protective aerial coverage that was provided by the United States, Cambodian and Republic of Vietnam forces during the critical first eight months of 1971.

Aerial protection for the river convoys was begun after eight Viet Cong attacks were directed on civilian petroleum, oil and lubricant tankers transiting the Mekong between the Cambodian Republic of Vietnam border and Phnom Penh. Concern over the grave situation was relayed from the American Embassy in Phnom Penh to the Secretary of State in Washington, D.C.<sup>3</sup> After Viet Cong efforts on the Mekong threatened to seal off all the vital military cargo and petroleum products transiting the river, it was clear that additional protective action was necessary.<sup>4</sup>

Petroleum supplies at Phnom Penh reached a critical low on January 7, 1971 when only a few days of reserves remained.<sup>5</sup> Immediate replenishment was paramount. Under this condition, to ensure that the Mekong River shipping channel remained open for petroleum and military cargo, and to prevent isolation of Phnom Penh and large areas of Cambodia, a plan for air and surface protection for all convoys on the Mekong from Tan Chau to Phnom Penh was implemented.<sup>6</sup>

The plan permitted tankers, barges, and merchant ships to assemble at Tan Chau and form into convoys which sailed under a Vietnamese convoy operations commander. The commander was responsible for coordinating all air, river, and bank defenses.<sup>7</sup>

The Viet Cong, with relatively free movement throughout the area, was within rocket and recoilless rifle range of all river traffic along the approximately 70 miles of meandering

river between Tan Chau and Phnom Penh (Figure 1).<sup>8</sup> Width along this portion of the river varies from 400 to 2,000 meters, depending on the season, and permitted access for ships varying from 4,000 to 6,000 tons. The Mekong flow begins decreasing in November and reaches its lowest level in May. Terrain along the river is flat to gently rolling and is covered by light vegetation in most places. Due to the lack of drainage, there are many swamps along the river. Extensive rice fields were the predominant landscape feature.

In early January, 1971, the Defense Intelligence Agency was aware that the Mekong could be blocked along several areas in the river, probably with the wreck of a single vessel.<sup>9</sup> The attacks averaged about three a month, however January had the heaviest monthly attacks, with ten occurring between the 17th and 30th.

### **SURFACE SECURITY FORCES**

Both surface and air protection was necessary to minimize the effects of enemy attacks. Convoys were escorted by three groups of military vessels which were identified as advance, escort, and reaction. For a typical convoy of ten cargo ships, the advance group would include four mechanized landing craft which had been modified for use as minesweepers, two river patrol boats which would escort the mechanized landing craft, one command and control boat from which the Vietnamese Convoy commander would direct operations, one mechanized landing craft converted into a gunship for heavy firepower, and three amphibious assault patrol boats. Thus 11 Vietnamese naval vessels were used to provide both a minesweeping capability and a blocking unit between the



enemy and the convoy. The blocking units would move ahead of the convoy and face the banks at likely ambush points. After the convoy passed, they would move ahead to assume another flanking or blocking position.

The escort group consisted of one large landing support ship, which was used as the convoy flagship, and four fast patrol craft for speed and maneuverability. Additionally, two river patrol boats would be assigned to each commercial vessel in the convoy. For example, for a convoy of ten ships, 20 river patrol boats would provide escort protection.

The third group (reaction) was composed of one command and control boat for the deputy convoy operations commander, two amphibious assault patrol boats, and five armored troop carriers. These five armored troop carriers contained the Vietnamese Army and Cambodian ground units which could be placed along the river banks if necessary. In addition to these reaction units, the Vietnamese Army units secured the river banks from Tan Chau to Neak Luong while the Cambodian Army monitored the banks from Neak Luong to Phnom Penh.<sup>10</sup>

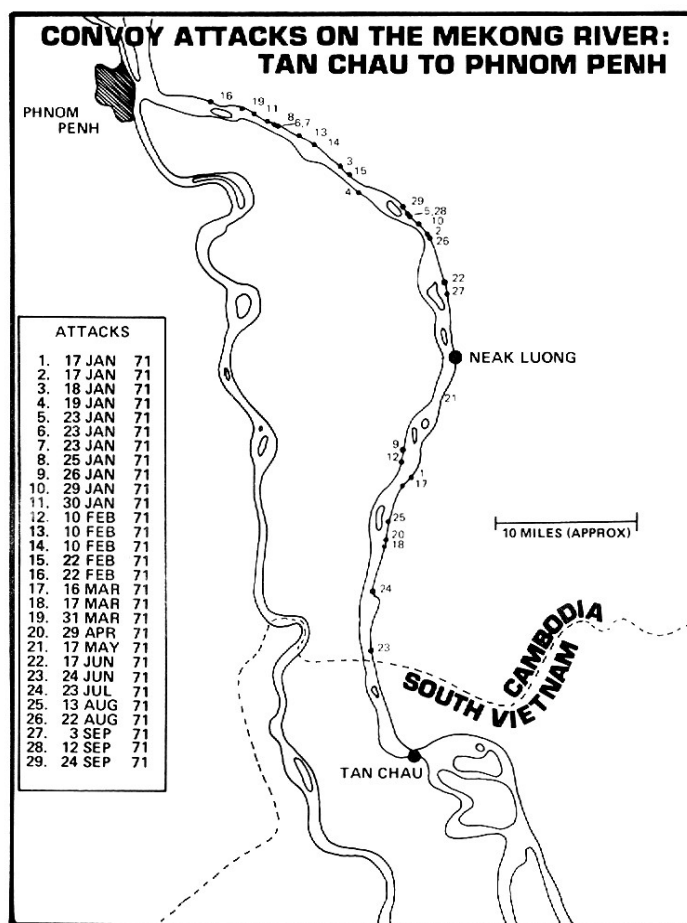
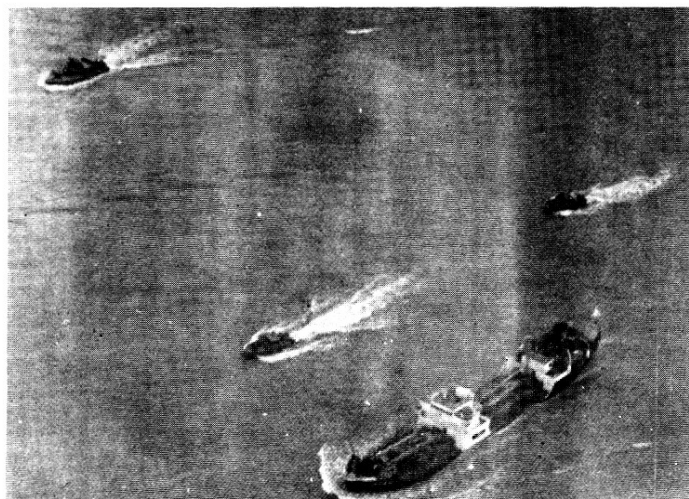
A total of 46 Vietnamese naval vessels were committed as part of the advance, escort or reaction forces to protect a typical commercial convoy of ten ships.

The numerical designation procedures for Mekong River convoys were a modification of those used in World War I and II. Convoys between Tan Chau and Phnom Penh were designated TP-1, TP-2, etc., while the return convoy from Phnom Penh to Tan Chau simply had the letters reversed.<sup>11</sup>

### AIR SUPPORT

As originally conceived, air support was to be provided by the Vietnamese, Cambodian, and United States Armed Forces. USAF and U.S. Army assets were specifically included, but in the basic plan no references were made to U.S. Navy air assets. Beginning on January 17, 1971, the Seventh Air Force was tasked with providing continuous air coverage for all convoys from the Cambodian-Republic of Vietnam border to Phnom Penh.<sup>12</sup> In actuality, the Cambodians provided no air support while the Vietnamese contributed occasionally. The Vietnamese Air Force contribution will be discussed later.

Mekong River Convoy with Vietnamese Navy Escort.



Attacks on the Mekong River Convoys: Tan Chau to Phnom Penh.

### U.S. Air Force, Army, and Navy Aerial Coverage

The United States Military Assistance Command, Vietnam (COMUSMACV), tasked the Seventh Air Force to arrange for continuous air coverage for convoys on the Mekong River from the Cambodian border to Phnom Penh, employing air assets as available and specifically directed the use of Vietnamese, Cambodian, and Seventh Air Force tactical air forces. In addition, U.S. Army rotary wing aircraft were also obligated for river coverage. Because of non-availability of Cambodian air assets, their contribution to the convoy security was primarily in ground operations.

The Seventh Air Force established that USAF Forward Air Controller OV-10s and O-2As would provide continuous day and night coverage, respectively. Further, Seventh Air Force assets would be used to provide AC-119Gs for continuous day and night coverage.<sup>13</sup> The U.S. Army assets tasked by Seventh Air Force for continuous day coverage were one Light Fire Team, normally consisting of one UH-1H command and communications helicopter; two OH-6A light observation helicopters; and two AH-1G Cobras. An Army UH-1H command and control helicopter was also assigned for continuous night coverage. Three light fire teams were required to ensure that one was on continuous coverage.

In the formative stages of determining the most economical combination of aircraft for adequate coverage, several mixes of aircraft were tried.<sup>14</sup> First, a team consisting of one USAF Forward Air Controller and one gunship was tried, followed



by a more effective combination of several U.S. Army and USAF aircraft. The combination discussed in the preceding paragraph proved to be the most effective combination of air coverage and was used for the majority of convoys.

In February 1971, the U.S. Navy was requested to provide UH-1 helicopters (Sea Wolves) for standby night alert (Figure 10). Thus, the initial coverage included an active role for the USAF and U.S. Army while the U.S. Navy air assets were on standby.

Only three days after the Combined Convoy Security Plan was directed by COMUSMACV, the U.S. Navy requested an active role in providing air coverage when USAF and Vietnamese Air Force assets were not available.<sup>15</sup> Seventh Air Force claimed sufficient air assets were available and declined the assistance of the Navy.<sup>16</sup>

Approximately three weeks later, Seventh Air Force air resources were being severely strained because of its assigned task to also provide air cover for all road convoys in Cambodia. This necessitated a request to COMUSMACV on February 9, 1971 for U.S. Navy rotary and fixed wing tactical air support for the Mekong convoy coverage.<sup>17</sup> Approval for employment of U.S. Navy rotary wing (UH-1B) and heavily armed fixed wing light attack aircraft (OV-10 Black Pony) in support of the convoys was begun on February 28, 1971.<sup>18</sup>

#### Centralized Control of Air Assets

Centralized control of air coverage for Mekong River convoys was provided by the Seventh Air Force. The Special Operations Division and Fighter Division received air coverage requests approximately 48 to 24 hours in advance of convoy movements, in messages from the Combined Task Force 218. Fragmentary (frag) orders were then issued by the Operations Division directing air support assignments for U.S. Army light fire teams and USAF gunships. USAF Forward Air Controllers were notified about pending convoys by the Combined Task Force 218. The Vietnamese Air Force assets were identified by frag orders which were later coordinated with Seventh Air Force Operations. Support for unannounced convoys was to be diverted from Seventh Air Force air assets which had been originally fragged to Cambodia.<sup>19</sup>

#### Rules of Engagement

In January, 1971, the rules of engagement permitted gunships, Forward Air Controllers or fighter aircraft con-

rolled by Forward Air Controllers to return fire for the purpose of protecting convoys. Initially, when the convoy was under attack, air to ground fire was approved by the surface commander and Cambodian liaison officer (both were aboard the command and control ship) without specific approval of the Seventh Air Force Tactical Air Control Center.<sup>10</sup> In cases where no radio communications between aircraft and the command ship was possible, gunships and Forward Air Controllers were permitted to expend to break contact; however, the origin of fire must have been unquestionably pinpointed. Subsequently, the authority to validate targets for air strikes was withdrawn from the Cambodian liaison officer and the Vietnamese Surface Commander. This authority was then vested in the Cambodian liaison officer aboard an airborne tactical air control center and in the Seventh Air Force.<sup>12</sup>

Even further control was established on March 27, 1971. As a result of increased friendly ground forces along the banks of the Mekong, the entire route from Tan Chau to Phnom Penh was declared a "no-fire" zone. No air to ground firing was allowed unless it was cleared by Seventh Air Force.<sup>22</sup>

As expected, the enemy took advantage of the allied "no-fire" zone provisions. For example, on Convoy TP-17, B-40 launchers seemed to be in three groups of two each, along and within the settlements on the river banks. U.S. Navy Sea Wolves observed the second and third attacks from directly overhead and claimed to have the source of fire pinpointed. They claimed to be in a position to accurately return the fire, but the Air Mission Commander in the Command and Control helicopter could not recommend clearance because the Cambodian Liaison Officer in the Command and Control helicopter could not accurately determine where the civilians were. Thus, the Forward Air Controller and Light Fire Teams were not used. It is interesting to note that a Vietnamese Army company commander was in the area 30 minutes prior to the attack and had announced that the area was "all quiet."<sup>23</sup>

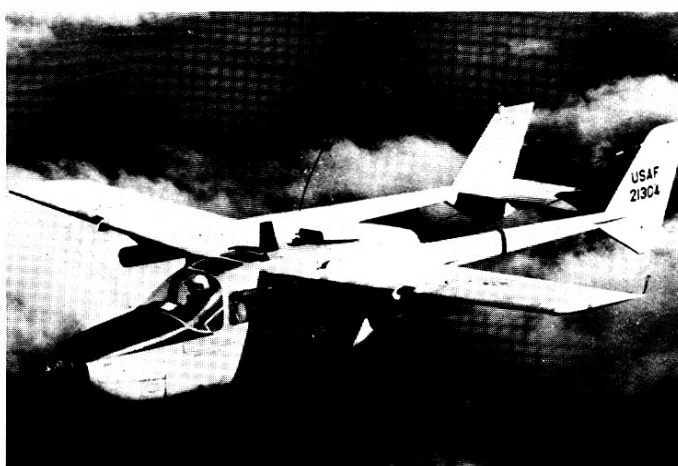
#### Transfer of AC-119Gs to the Vietnamese Air Force

A possible void in air coverage was suggested by the Seventh Air Force on August 18, 1971.<sup>24</sup> The Deputy Chief of Staff, Operations, Seventh Air Force, was concerned over the transfer of AC-119Gs to the Vietnamese Air Force which was scheduled for September 10 and suggested that the U.S. Navy

USAF OV-10



USAF O-2





Sea Wolves would be needed for a more active role. The Sea Wolves had been participating from an alert posture, while the Black Ponies were seldom tasked. The question was whether the Vietnamese would be able to provide gunship coverage, during the transition, although they had signed a letter of agreement to provide one AC-47 from Binh Thuy for three hours of night coverage.<sup>25</sup>

To prevent any possible void in air coverage, COMUSMACV directed on August 28, 1971 that U.S. Navy OV-10s would be frugged and placed on alert for immediate scramble.<sup>26</sup> In the same directive, an additional five USAF aircrews were provided to ensure that five Vietnamese Air Force AC-119G sorties were flown daily (five in Cambodia—three of these were tasked in support of the convoys) until the Vietnamese Air Force capability was adequate to assume continuous night coverage.

The Vietnamese Air Force representatives on the Mekong River Tripartite Study Group had stated their desire to provide AC-119 and AC-47 convoy coverage. Since their desires were verbal, COMUSMACV directed that a continuing effort be made to finalize the agreements.<sup>27</sup>

#### Air Command, Control, and Tactics

To illustrate the complexity and intricacy of actually expending air assets in support of Mekong convoys, it is best to look at a hypothetical example. There were numerous variables affecting air coverage, and the following explanation could have been modified depending on such things as severity of attack and location of the enemy.

When a convoy came under attack, the Commander of Convoys may have requested air support to suppress the enemy fire. If so, the Convoy Commander contacted the Command and Control helicopter which, in turn, relayed the request to the Forward Air Controller or Airborne Battlefield Command and Control Center. The Forward Air Controller or the Battlefield Control Center contacted Seventh Air Force and requested clearance to fire.

Upon receiving the request for permission to expend, the Seventh Air Force reviewed the attack area for cultural centers and populated settlements. If it appeared to be a clear area, the Seventh Air Force contacted the Cambodian Liaison Officer who either granted or denied permission to expend. The senior American duty officer in the Seventh Air Force Tactical Air Control Center then made the final decision.

Once the Tactical Air Control Center approval was granted (assuming the Cambodian Liaison had agreed to expend), the Forward Air Controller or Airborne Control Center was contacted and granted clearance to expend. The Forward Air Controller or Airborne Battlefield Command Center then relayed the clearance to the Command and Control plane. If the commander still desired to expend, he directed the Cambodian and Vietnamese ground units to identify their unit locations.

At the first sign of enemy fire, the low observation helicopters had cleared the area. The Command and Control helicopter flew off to about 1000 meters and circled the "hot" area. The lead Cobra attacked and pulled off to about 900 to 1,200 feet above the target. The "cover" Cobra followed closely behind, expended, and pulled up about 1,500 to 2,000 feet above the target.



U.S. Army Cobras Flying Cover for a Mekong Convoy

The Forward Air Controller and Command and Control helicopter observed and monitored the entire operation. If more firepower was needed, the AC-119G, Sea Wolf or Black Pony were used. Forward Air Controllers directed and monitored the additional tactical assets, in addition to marking targets.

USAF AC-119Gs, flying at an elevation of approximately 3,500 feet, circled over the convoys in a large elliptical orbit, day and night, for the duration of the transit. Their heavy fire capability provided by the 7.62mm mini-guns, combined with their extended fuel range of six and one-half hours, made them ideally suited for convoy escorting.

#### EFFECTIVENESS OF AIR COVERAGE

The original objective of the Mekong River convoy operation was to ensure that petroleum, oil, lubricants and military cargo vessels continued transporting critically required supplies into Phnom Penh. Surface arteries, including both rail lines and roads, were not sufficiently secured. Route 4 remained only marginally open and even when open its contribution was minimal since each Mekong River convoy consistently carried 10 times as much petroleum and petroleum derivatives as a regular 30 truck convoy.<sup>28</sup> Nevertheless, air support was occasionally requested for road convoys.<sup>29</sup>

Petroleum consumption in Phnom Penh was approximately 20,000 tons per month prior to the closing of route 4. By February 1971, consumption had dropped to 5,000 tons.<sup>30</sup> With the uninterrupted arrival of Mekong River convoys, by July 1971, approximately 25,000 tons of petroleum products were shipped into the capital city each month.<sup>31</sup>

The effectiveness of air coverage for the Mekong River convoys could not be quantitatively measured with available



U.S. Army LOHs Flying Cover for a Mekong Convoy

data, but Table 1 reveals significant data for an overall summary. At the end of September 1971, 32 convoys had attempted the round trip from Tan Chau to Phnom Penh. This exposed approximately 640 vessels (commercial tankers, tugs, and barges) to enemy fire, since each convoy averaged a minimum of 10 commercial vessels. Even though there were 29 separate enemy attacks on the convoys, and 21 ships received some degree of damage, only four vessels were moderately to heavily damaged. Only convoy TP-12 was significantly delayed by enemy action, but it reached its destination—without damage—16 hours late. The convoy was halted while air strikes cleared an ambush point.

Complete data for identifying air strikes in direct support of all convoys was not available, but records do reveal that U.S. Army gunships expended 14 times on the enemy; USAF gunships expended a minimum of seven times; and Navy Sea Wolves and/or Black Ponies expended two times.<sup>23</sup>

Convoys gradually expanded, and on July 5, TP-25 carried an unprecedented two and one-half million gallons of petroleum and petroleum products. This particular convoy consisted of 17 vessels, including tugs, barges, and tankers.<sup>33</sup>

Obviously, continuous air coverage required a large number of sorties. For example, TP/PT-27 against which no enemy action was initiated, required 71 sorties to be flown.<sup>24</sup> As of August 2, 1971, 76 sorties were required for each convoy with an average sailing time of 26 hours.<sup>35</sup>

Success of the first mission was recognized on January 18, 1971, when Vice Admiral King, Commander, Naval Forces, Vietnam, sent the following message to Seventh Air Force and others praising the contribution of air coverage.<sup>36</sup>

Yesterday's successful Mekong River convoy (TP-1, January 17) operation provides ample evidence of

benefits attainable from interservice and allied cooperation, and will provide an example of future such operations. The air coverage provided the convoy left nothing to be desired. Please extend my congratulations to all concerned.

A few months later, on April 24, Commodore Phu, the Vietnamese Navy Convoy Operations Commander, continued to praise the air coverage, particularly with his comment that no major attacks had been attempted since approximately April 1. He attributed this to the high degree of cooperation and planning between the U.S. and Vietnamese forces.<sup>37</sup>

In mid-August 1971, additional recognition of air coverage to the success of the Mekong River convoys was recognized when the Tripartite Deputies Study Group for Mekong Convoys acknowledged that "air coverage had been a key factor in the security of convoy operations."<sup>38</sup>

## CONCLUSION

The Mekong River convoy operation originated as a short term program to ensure the continuing arrival of petroleum, oil, lubricants and general supplies into the Cambodian capital city. It was extended for two more months as of May 1, 1971.<sup>39</sup> On June 24, 1971, the Chief, Vietnamese Joint General Staff, issued instructions to again extend the convoy coverage until August 31, 1971.<sup>40</sup> A meeting of the Tripartite Deputies Study Group met again on August 16, 1971 and agreed to continue coverage until November 1, 1971.<sup>41</sup>

A primary objective was the turnover of operational control of Mekong River convoys to the Cambodian Republic's navy at the earliest date.<sup>42</sup> The Government of Cambodia voiced its intentions of assuming command of all Mekong River operations effective September 1, 1971.<sup>43</sup> Intelligence



U.S. Navy Black Pony over the Mekong Delta



VNAF AC-119Gs were Scheduled for a More Active Role

## DATA ON ENEMY ATTACKS ON THE MEKONG RIVER CONVOYS

January–September 1971

CONVOY	DATE	TIME	LOCATION	TYPE	RESULTS	CASUALTIES	AIR COVER <sup>a</sup>
TP-1	17 Jan.	0945H	WT225290	B41, 75mm	No damage	None	Army gunships expended
		1400H	Ten mi. N of Neak Luong	BH, 75mm	No damage	None	Army gunships expended
	18 Jan.	0310H	14 mi. SE of Phnom Penh	75mm, sml. arms	Minor damage	None	
TP-2	19 Jan.	1500H	WT210650	B40, 75mm	No hits	None	
TP-3	23 Jan.	1715H	11 mi. N of Neak Luong	B40	No damage	None	
		1945H	11 mi. SE of Phnom Penh	B40	No damage	None	
		1955H	11 mi. SE of Phnom Penh	B40	Minor damage	None	
PT-3	25 Jan.	0900H	10 mi. from Phnom Penh	B40, auto-matic rifles	No damage	None	
TP-4	26 Jan.	1615H	WT275330	Command-detonated mine	No damage	None	Not required
TP-5	29 Jan.	1915H	10 mi. N of Neak Luong	57mm R/R B40	Tug aground but recovered	None	
TP-5	30 Jan.	2020H	WTO52751	50 cal, 75mm, RPG-7	2 merchants and 1 tug hit	Unknown	
TP-6	10 Feb.	0615H	WT260330	75mm	No damage	None	USAF gunships and Army LFT expended
		1300H	WT120720	75mm	No damage	None	USAF gunships and Army LFT expended
		1545H		75mm, B40	1 tug hit	None	USAF gunships and Army LFT expended
TP-7	22 Feb.	1040H	25 mi. SE of Phnom Penh	B40, 75mm small arms	6 hits, minor damage	None	Army LFT expended
		1400H	82 mi. SE of Phnom Penh	B40, 75mm	Tug heavily damaged, ammo, barge sunk, 1 barge burned	4 civ wounded	Army LFT and USAF gunships expended
TP-8 & 9	No incident						
TP-10	16 Mar.	0635H	9 mi. S of Neak Luong	Mine explosion	Tug heavily damaged	None	
PT&10	17 Mar.	1945H	9 mi. N of RVN border	B40	Tug tow-line severed	1 killed 1 injured	USAF gunships expended
TP-11	No incident						
TP-12	31 Mar.		8 mi. S of Neak Luong	Stalled 16 hours for air attack	No damage	1 American KIA	USAF and Army LFT expended—two LOHs were downed





U.S. Navy Sea Wolf on the Mekong

CONVOY	DATE	TIME	LOCATION	TYPE	RESULTS	CASUALTIES	AIR COVER*
TP-13	The RVN preferred that this number not be used to designate a convoy						
TP-14 through 16	No incidents						
TP-17	29 Apr.	0322H	10 mi. inside Cambodia	B40, automatic rifles	Light damage to 3 ships	None	Gunships could not expend due to weather
TP-18	No incident						
TP-19	17 May	0700H	WT298380	75mm, B40	2 ships damaged	1 killed 1 wounded	USAF gunships and Army LFT expended
PT-19 through PT-22	No incidents						
TP-23	17 Jun.	0500H	7 mi. N of Neak Luong	B40	No damage	Army LFT expended	
TP-24	24 Jan.	2325H	2 mi. N of RVN border	B40	1 tanker hit	1 wounded	USAF gunships and US Navy Sea Wolves and Black Ponies expended
TP-25	No incident						
TP-26	13 Jul.	0017H	19 mi. S of Leak Luong	57mm	Light damage to one ship	2 wounded	Army LFT and US Navy Sea Wolves expended - one Army LOH downed USAF TACAIR expended
TP-27 & 28	No incidents						
TP-29	13 Aug.		12 mi. N of RVN border		Light damage	None	Army gunships expended
PT-29	No incidents						
PT-30	22 Aug.		8 mi. N of Neak Luong	B40, small arms fire	No damage	None	
TP-31	3 Sep.		6 mi. N of Neak Luong	B40, 50 cal	No damage	None	Army LFT expended
TP-32	12 Sep.		11 mi. S of Neak Luong	B40	Minor damage	2 wounded	Army gunships expended
TP-33	24 Sep.		12 mi. N of Neak Luong		No damage	None	USAF gunships did not expend due to weather

\*Data for Air Cover was gathered from Weekly Intelligence Summaries, NAVFORV Monthly Intelligence Summaries and Official Logs maintained by DOXR and MACV/NAVFORV Liaison. Air coverage by FACs was available on all convoys; this column defines only those assets which definitely expended.

estimates had predicted that elements of the 96th North Vietnamese Army, 211th Viet Cong Artillery Regiment, and the 88th North Vietnamese Regiment would continue to operate in the Mekong area probably for the purpose of disrupting friendly shipping. This high threat to shipping coupled with the inability to perform air support coordination functions – which had been a critical factor in successful convoy operations – required COMUSMACV on August 22, 1971 to advise the Commander-in-Chief, Pacific Command that Cambodia was not capable of providing adequate security to Mekong River convoys at that time.<sup>44</sup> The Tripartite Deputies Study Group on August 16, 1971 also recommended deferral of Cambodian assumption of the Mekong River convoy security.<sup>45</sup>

Reduction in U.S. air assets, particularly with the transfer of AC-119Gs to the Vietnamese Air Force on September 10, 1971, required a more active role by the Vietnamese Air Force and Cambodian Air Force. The basic change was the transfer of AC-119Gs night coverage to the Vietnamese Air Force. (VNAF AC-47s were occasionally available for gunship coverage, but documentation on sorties flown in direct support of the Mekong operation is not available). The Cambodian Air Force Forward Air Controllers and Cambodian tactical fighters were expected at some future date to provide air coverage.<sup>46</sup>

The Combined Convoy Security Plan had tested USAF ability to overcome complex communications and coordination problems. Through "trial and error," a sophisticated communications system between the Cambodian Vietnamese Army and Navy, and U.S. Forces had become operationally effective.

Considering the critical shortage of petroleum products in Phnom Penh when the air coverage began, and the fact that only one tug and one barge were destroyed out of the approximately 640 commercial vessels that attempted the round trip to and from Phnom Penh, there can be no doubt that the mission was successfully accomplished. To insure the success of the mission, over 2,240 sorties were flown in direct support of the convoys. Out of this number, strike aircraft attacked 23 times.

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