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**OPERATION SEALORDS: A STUDY IN THE EFFECTIVENESS OF THE
ALLIED NAVAL CAMPAIGN OF INTERDICTION**

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Executive Summary

Title: Operation SEALORDS: A Study In The Effectiveness Of The Allied Naval Campaign Of Interdiction.

Author: Eugene F. Paluso, Lieutenant Commander, United States Navy

Thesis: The Vietnam War allied naval barrier operations to interdict the enemy infiltration of men and supplies coming across the Cambodian border into the Mekong Delta region was successful only through the utilization of joint combined naval, ground, and air assets.

Discussion: The United States Navy involvement in the Vietnam war prior to 1964 was primarily blue water operations. In 1964, the Vietnam Delta Infiltration Study Group was tasked to conduct a comprehensive study of the problem of enemy infiltration of men and supplies into South Vietnam Mekong Delta region across the Cambodia and Laos borders. The findings of the group were published in the Bucklew Report and concluded that the border infiltration problem was significant and needed to be stopped in order to ensure victory in the Vietnam War. The recommendations were for the U.S. to develop an extensive riverine operations capability to assist the South Vietnamese military in conducting counter-insurgency operations to stop the infiltration problem.

The U.S. Navy moved from deep blue water operations to near shore blue water operations with the Operation MARKET TIME patrols, which encompassed larger sea-going craft patrolling the coast to forty miles out to sea. These operations led to the first brown water operations during Operation GAME WARDEN which patrolled the major river systems in the Mekong Delta region in order to interdict enemy movements along the rivers. Soon these patrols revealed the need to ground troops to control the riverbanks in order for the patrols to be effective.

The Tet offensive of 1968 revealed that the MARKET TIME and GAME WARDEN patrols were not totally containing the infiltration problem. Operation SEALORDS established patrol barriers that were designed specifically to stop the influx of men and supplies crossing the Cambodian border and sustaining enemy forces operating in the Mekong Delta and Saigon areas. SEALORDS barriers were systematically set up to take control of the Mekong Delta region and deny the enemy the freedom of movement enjoyed for years prior.

Conclusion: Operation SEALORDS was extremely effective under U.S. control. The enemy could no longer mount large-scale offensives from within the Mekong Delta region as in the 1968 Tet offensive. The tactics, techniques, and procedures developed during the operation were key to the overall success of the counter-insurgency effort.

The overarching key to the success of the operation was the joint combined efforts of the naval, ground, and air forces. Barrier interdiction operations cannot be effectively accomplished without joint efforts. Inter-service rivalry initially hampered operational efforts; however, the inter-service efforts eventually led to the operation's success.

Table of Contents

List of Illustrations.....	4
List of Tables.....	5
Chapter 1 Background On Naval Operations	6
Introduction.....	6
CINCPAC Tasking.....	7
Bucklew Report.....	7
Chapter 2 Prelude To SEALORDS.....	10
Vung Ro Incident.....	10
MARKET TIME.....	12
GAME WARDEN.....	12
Riverine Craft.....	13
Mobile Riverine Force.....	21
Chapter 3 The SEALORDS Campaign.....	22
Zumwalt's Vision.....	22
Strategy Conception.....	25
Command Structure.....	28
SEARCH TURN.....	31
FOUL DECK/TRAN HUNG DAO.....	32
GIANT SLINGSHOT.....	35
New Tactics.....	38
BARRIER REEF.....	40
Effectiveness.....	42
Intelligence.....	44
Jointness.....	45
READY DECK.....	45
Logistics.....	50
SEAFLOAT/BREEZY COVE.....	51
Vietnamization.....	54
Chapter 4 Conclusions.....	58

List of Illustrations

<u>No.</u>	<u>Description</u>	<u>Page</u>
1	MARKET TIME Coastal Zones.....	11
2	GAME WARDEN Patrol Areas.....	14
3	Patrol Boat Riverine (PBR) Photo.....	15
4	Fast Patrol Coastal (PCF) Photo.....	16
5	Assault Support Patrol Boat (ASPB).....	17
6	Monitor Boat Photo.....	18
7	OV-10 and Photos.....	19
8	Enemy Infil Routes for III/IV Corps	24
9	SEALORDS Barrier Map.....	27
10	Operation SEARCH TURN Map.....	30
11	Operation FOUL DECK Map.....	33
12	Operation GIANT SLINGSHOT Map.....	36
13	Operation BARRIER REEF Map.....	41
14	Artillery Barge Example.....	46
15	Helicopter Slinging of a PBR.....	47
16	Operation READY DECK Map.....	48
17	SEALORDS River Basing System Map.....	52
18	SEAFLOAT Photo.....	53
19	Operations SEAFLOAT and BREEZY COVE Map.....	55

List of Tables

<u>No.</u>	<u>Description</u>	<u>Page</u>
1	GIANT SLINGSHOT First Month Totals.....	37
2	SEALORDS Statistics The First Year 1968-1969.....	43
3	SEALORDS USN/VNN Operations Designations.....	57
4	SEARCH TURN Totals.....	60
5	GIANT SLINGSHOT Totals.....	61
6	Rung Sat Totals.....	62
7	BARRIER REEF Totals.....	63
8	READY DECK Totals.....	64
9	BREEZY COVE Totals.....	65
10	FOUL DECK/TRAN HUNG DAO Totals.....	66

Chapter 1: BACKGROUND ON NAVAL OPERATIONS

“The forward gunner of the cover boat peered miserably through the gloom, wondering if the rain would fall all night or if would stop later so the mosquitoes might have a turn at inflicting their own special brand of torture. Suddenly, in the strobing flashes of lightning, his eye caught a movement... it was a North Vietnamese soldier less than thirty yards away...In response to the chief’s orders, the two PBRs simultaneously ignited their engines and backed away from the bank, opening fire at the point blank targets as they went...The next morning, ground troops swept the area and found forty-one enemy soldiers dead in the jungle. The PBRs recovered eight others from the river. There were no friendly casualties.”¹

In 1968, the United States Navy was fully engaged in the counter-insurgency war against the Viet Cong (VC) and North Vietnamese Army (NVA) in South Vietnam. The number of U.S. Navy personnel serving in Vietnam in 1968 was just over 38,000, with approximately 10,000 of those personnel serving in the Brown Water Navy.² The riverine units were formed and trained to conduct riverine warfare operations against the communist VC and NVA enemy forces in the Mekong Delta region. The enemy troop concentrations in the Mekong Delta region were infiltrating supplies into South Vietnam across the border of the neutral country of Cambodia via the smaller rivers and tributaries. A strategy was needed to “choke off” the supply routes and take control of the Mekong Delta region. This paper will analyze the strategy developed in what has often been called one of the most effective campaigns of the Vietnam War, the Southeast Asia Lake, Ocean, River and Delta Systems strategy or Operation SEALORDS.

In early 1964, Captain Phillip H. Bucklew and eight other United States Naval Officers formed the Vietnam Delta Infiltration Study Group. This group was tasked by Commander-in-Chief, United States Pacific Command (CINCPAC) to conduct a

¹ Thomas J Cutler, LCDR, USN, *Brown Water Black Berets*, (Annapolis, MD: Naval Institute Press,1988), 307-308.

² Commander Naval Forces Vietnam, “The Naval War In Vietnam”, June 1970, p 111.

comprehensive study concerning the problem of the infiltration of war supplies by North Vietnam into the south. In reflecting on the group's mission, Captain Bucklew recalled comments made by CINCPAC, Admiral Felt: "In a nutshell, I want to know why all I get from Vietnam are glowing reports of our accomplishments and meanwhile we are getting the hell kicked out of us. That's your job."³ The findings of the group were published in what was known as the Bucklew Report. The Bucklew Report came up with fifteen conclusions, comments, and recommendations, which ultimately concluded that the coastal and river infiltration of supplies from the north was substantial and needed to be stopped in order to defeat the communist forces in Vietnam.

The river systems in the Mekong Delta region were dominated by the NVA and VC troops moving men, munitions, and other war supplies freely in the region. These supplies were coming into South Vietnam either from the sea onto the major rivers or along smaller rivers and tributaries along the borders of Cambodia and Laos. The Bucklew Report found that the routes for infiltrating large concentrations of personnel and large quantities of supplies were coming from North Vietnam across the borders and along the rivers of Cambodia and Laos, and that the sea infiltration route, which was originally thought of as primary, was actually the secondary method used for high value items.⁴

The Bucklew report also determined that the South Vietnamese Navy (VNN) did not possess the capability to single-handedly stop the infiltration problem and the only way to prevent the enemy infiltration was for the United States to assist the VNN and

³ "Reminiscences of Captain Phil H. Bucklew USN (Ret), p323 of transcript 7, OANHC, Washington, DC.

⁴ JUSMAAG, Infiltration Into South Vietnam (Bucklew Report), NRS 2, OANHC, Washington, DC. p2

form a riverine warfare capability.⁵ The findings of the Bucklew report were compiled from numerous trips around Vietnam and observing the military advisory efforts in country. “The things that we included in our report were not original thinking on our part. We milked every man in the field.”⁶ The advisors in the field provided the ground truth needed to provide an accurate depiction of the difficulty in conducting counter-insurgency operations.

Other studies were conducted early in the conflict, which also concluded that the United States needed a robust and highly capable riverine force in South Vietnam. Two separate unpublished thesis papers done by Commander Jack A. Endacott and Lieutenant Commander S.D. Kully, Naval Officers attending the U.S. Naval War College in 1964, concluded that the U.S. needed to develop specialized riverine craft to meet the emerging riverine threat in South Vietnam.⁷ These reports came to many of the same conclusions as the Bucklew report, reinforcing the fact of the infiltration problem developing in the Mekong Delta region.

However, in 1964 the U.S. did not possess the naval craft or trained personnel necessary to conduct riverine operations required to accomplish the task. In 1965, as a result of the Bucklew Report and other studies being done, the U.S. began building shallow draft riverine craft capable of conducting riverine operations.⁸ The personnel training program and shallow water riverine craft needed to successfully accomplish the border interdiction operations would only become available after the military leadership

⁵ Bucklew Report Basic Conclusions p7; Conclusions, Comments and Recommendations, p7.

⁶ Captain Phillip H. Bucklew, oral history [10 July 1978], p7 of transcript, OANHC, Washington, DC..

⁷ R. Blake Dunnavent, *Muddy Waters: A History Of The United States Navy In Riverine Warfare And The Emergence Of A Tactical Doctrine, 1775-1989, A Dissertation In History*, (Texas Tech), 190-191.

⁸ Captain Phillip H. Bucklew, oral history [10 July 1978], p5-6 of transcript, OANHC, Washington, DC..

recognized the successes achieved during operations MARKET TIME and GAMEWARDEN.

Chapter 2: PRELUDE TO SEALORDS

In early 1965, a camouflaged North Vietnamese supply ship was discovered and sunk by air strikes in Vung Ro Bay on South Vietnam's central coast.⁹ This event caused great concern that the enemy was moving supplies via the coast to personnel operating in the south. The Bucklew report had determined earlier that sea infiltration was really a secondary method, not the primary for infiltrating men and supplies. Bucklew recalled, "There was never any indication of infiltration of troops over the coastal channels...But this brought a great wave, which the Army encouraged, saying these troops must be coming by sea. They didn't even want to acknowledge that they were coming through the hinterland, through the riverways. Because that was their territory."¹⁰

The Vung Ro Bay incident uncovered what appeared, to the Army, to be a large-scale operation of the communists infiltrating large shipments of war supplies from the north to enemy forces operating in the south. As a result of the incident, Operation MARKET TIME was established, becoming the U.S. Navy's largest participation in Vietnam up to 1965. MARKET TIME was conducted by what was known as the Coastal Surveillance Force, designated Task Force 115, which had an operational area that extended 40 miles out to sea from the coast of South Vietnam (See Illustration 1). The operations involved VNN assets as well as U.S. Navy destroyers, 81 Patrol Coast Fast (PCF's) "Swift" boats, 24 U.S. Coast Guard 82 foot cutters (WPB's), and 39 other

⁹ CDR R.L. Schreadley, USN, "The Naval War In Vietnam 1950-1970", *Proceedings* Vol 97, no. 819, May 1971, 186.

¹⁰ Captain Phillip H. Bucklew, oral history [10 July 1978], p5 of transcript, OANH, Washington, DC..

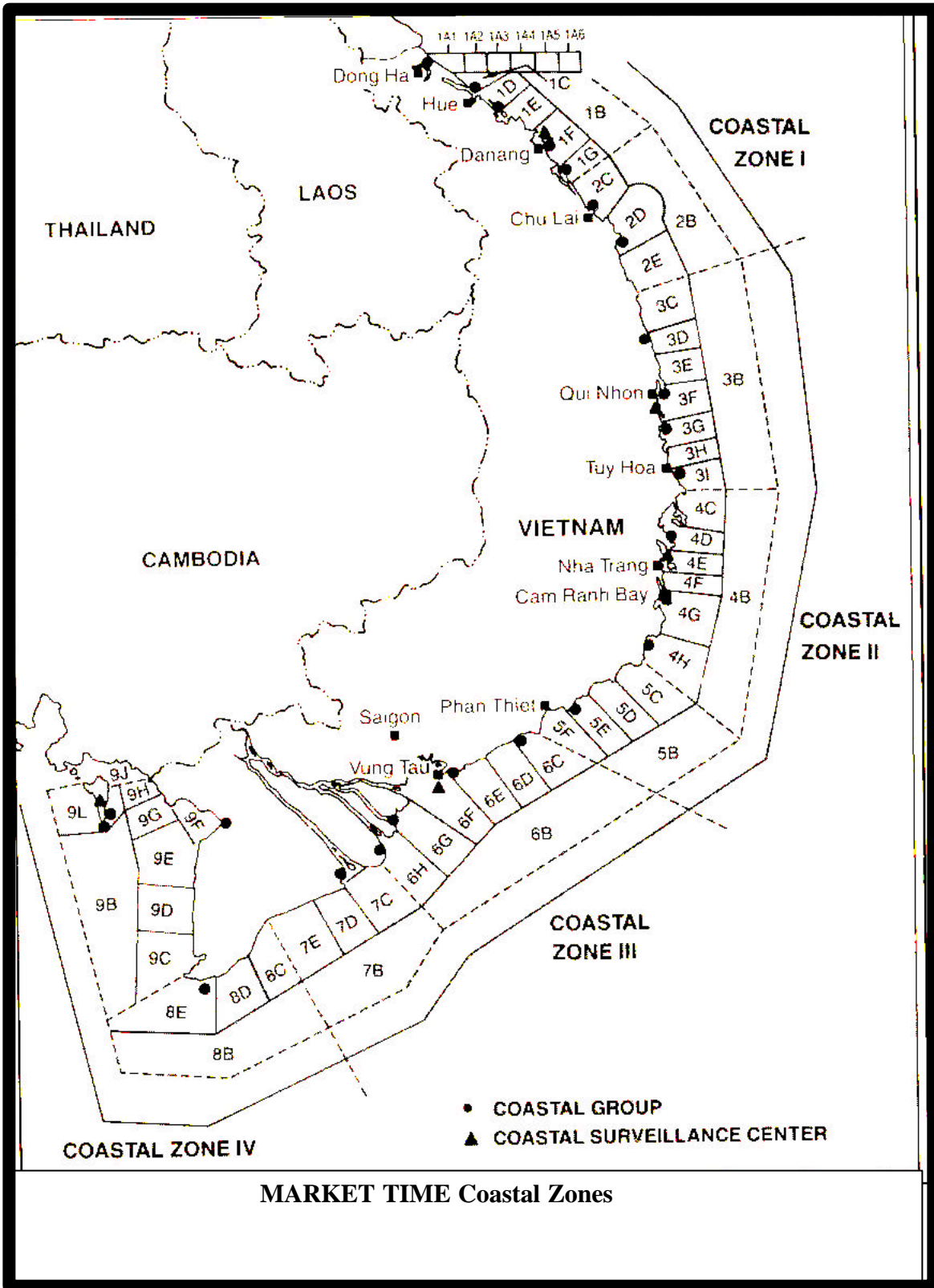


Illustration 1

assorted craft.¹¹ TF 115 had the mission to “conduct surveillance, gunfire support, visit and search, and other operations as directed along the coast of the Republic of Vietnam in order to assist the Republic of Vietnam in detection and prevention of Communist infiltration from the sea”.¹²

With the introduction of U.S. Navy assets, MARKET TIME effectively decreased the infiltration of supplies from the seas. It was perceived that, due to the large amount of coastline needed to be covered and with a limited number of assets, substantial amounts of supplies were still getting through and moving on the rivers to VC drop off points. It can be said that the development of MARKET TIME was a result of Army influence on allied operations and incorrect estimates on the methods and scope of VC and NVA infiltration operations into South Vietnam. This mistake came to light in the wake of the 1968 Tet Easter offensive in which it became apparent that the MARKET TIME patrols, although effective, were not sufficiently decreasing the influx of men and supplies streaming into the south.

It became apparent after Tet 1968 that the major river systems needed to be controlled in order to assist MARKET TIME forces and to further deter, interdict and hinder the enemy’s infiltration of supplies. In 1965, the effectiveness of MARKET TIME patrols resulted in the establishment of the River Patrol Force, designated Task Force 116, to conduct Operation GAME WARDEN. The mission of the GAME WARDEN forces was “to assist the Government of South Vietnam in denying the enemy the use of

¹¹ LCDR Thomas J Cutler, USN, *Brown Water Black Berets*, (Annapolis, MD: Naval Institute Press,1988), 287.

¹² CDR R.L. Schreadley, USN, “The Naval War In Vietnam 1950-1970”, *Proceedings* Vol 97, no. 819, May 1971, 190.

the major rivers of the [Mekong] Delta and the Rung Sat Zone”¹³. GAME WARDEN encompassed the major rivers of South Vietnam to include the Bassac, Co Chien, Ham Luong My Tho and Mekong rivers as well as the primary water route to Saigon, the Long Tau shipping channel¹⁴ (See Illustration 2).

By 1966, the operation involved 258 VNN and U.S. Navy shallow draft riverine craft to include PCF or “Swift” boats, Patrol Boats River (PBR’s), as well as converted Landing Craft Medium SIX (LCM-6) craft configured into Assault Support Patrol Boats (ASPB’s), Armored Troop Carriers (ATC’s), Command and Control Boats (CCB’s) and Monitors (See Illustrations 3-6). Additionally, the U.S. Navy procured 25 UH-1B Attack Helicopters or “Seawolves” and OV-10 “Black Pony” Broncos (See Illustration 7) to aid in air support operations.¹⁵ The workhorse for the majority of shallow water riverine operations was the PBR.

The MK II PBR was a thirty-two foot, aluminum hulled craft capable of reaching speeds of 25-29 knots. The draft of the PBR was less than 2 feet, which enabled the craft to operate in very shallow waters. The PBR was manned with a four-man crew and equipped with a twin .50 caliber machinegun forward and a .30 caliber machine gun and 40 mm grenade launcher aft¹⁶. These craft were utilized for everything from fire support and troop carrying to waterborne reconnaissance and ambush platforms.

¹³ CDR R.L. Schreadley, USN, “The Naval War In Vietnam 1950-1970”, *Proceedings* Vol 97, no. 819, May 1971, 192.

¹⁴R. Blake Dunnavent, *Muddy Waters: A History Of The United States Navy In Riverine Warfare And The Emergence Of A Tactical Doctrine, 1775-1989, A Dissertation In History*, (Texas Tech), 193

¹⁵ LCDR Thomas J Cutler, USN, *Brown Water Black Berets*, (Annapolis, MD: Naval Institute Press, 1988), 287

¹⁶ Barry Gregory, *Vietnam Coastal and Riverine Forces Handbook*, (Irthlingborough, Northhamptonshire England: Thorsons Publishing Group, 1987), 77.

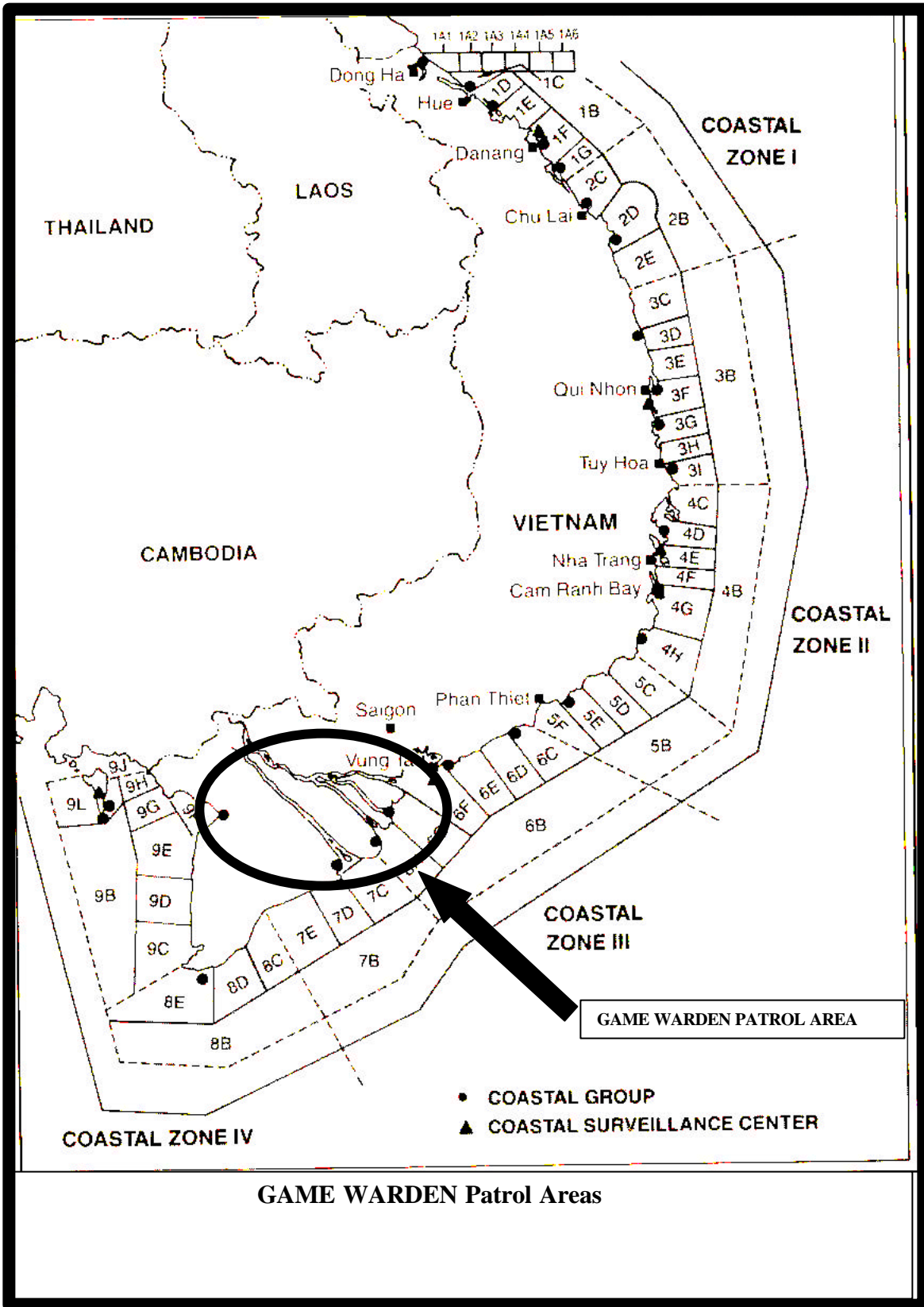


Illustration 2

Mark II (PBR 161-241) series

Displacement 8 tons **Length** 32 ft (9.7 m) **Beam** 11.5 ft (3.5 m) **Guns** three .50 calibre machine guns (twin mounted forward, single aft), one .40 mm grenade launcher **Main engines** two geared diesels (General Motors), water jets **Speed** 29 knots **Complement** 4 or 5 enlisted men.

A PBR Mark II makes a high speed trial run on the Long Tau River, 1968.

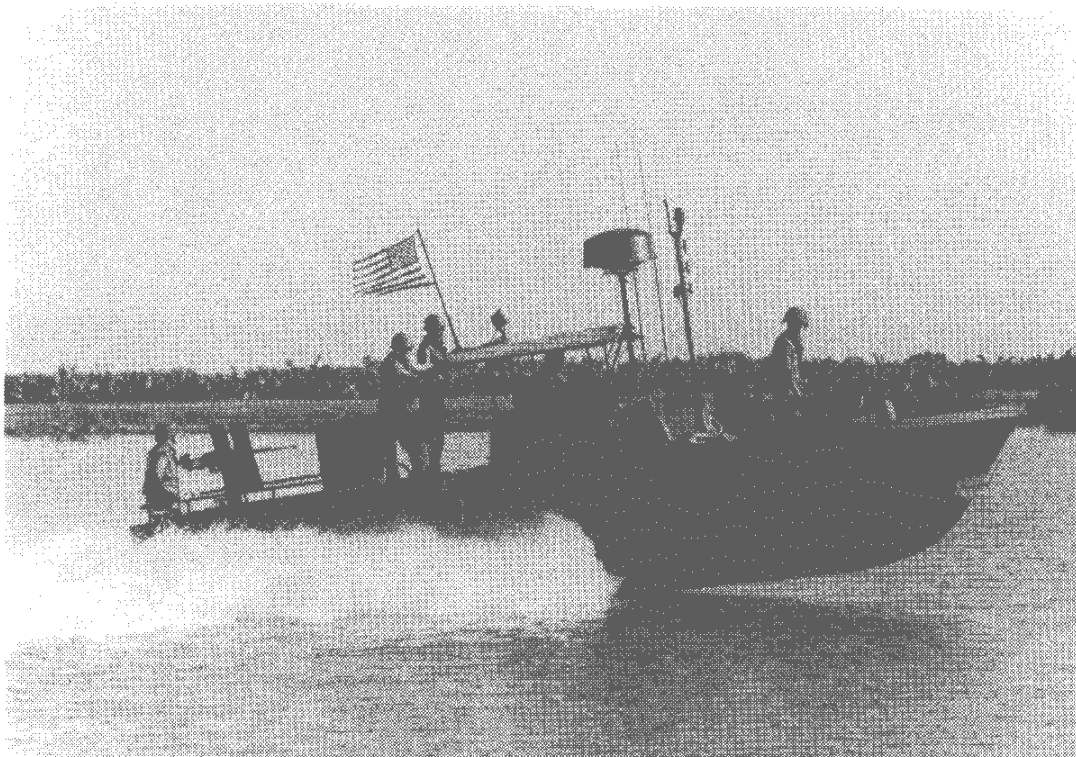


Illustration 3



Above *PCF 9 manoeuvres around an enemy barrier during a patrol on the Duong Keo River and the Ca Mau peninsula.*

Below *Swift boats beach to disembark Vietnamese marines on a sweep operation along a lower Ca Mau peninsula river.*



Illustration 4

Assault support patrol boats (ASPB)

Another converted LCM-6, the ASPB was specifically designed for riverine operations and served as an escort for other Navy river craft, also providing mine counter-measures during river operations. Hulls were steel-welded and the heavy scale of armament varied.

An ASPB moves alongside an ATC during a sweep for Viet Cong command detonated mines in the Mekong Delta.



Illustration 5

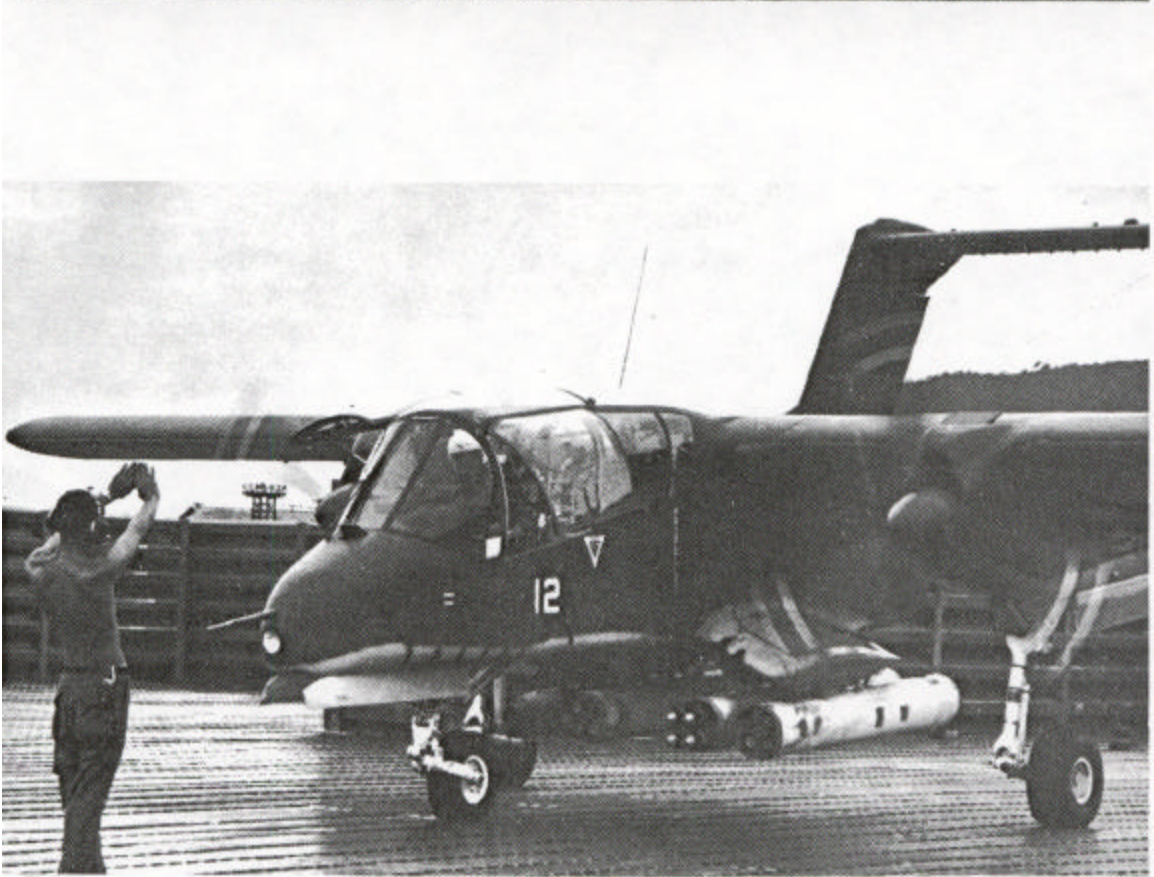
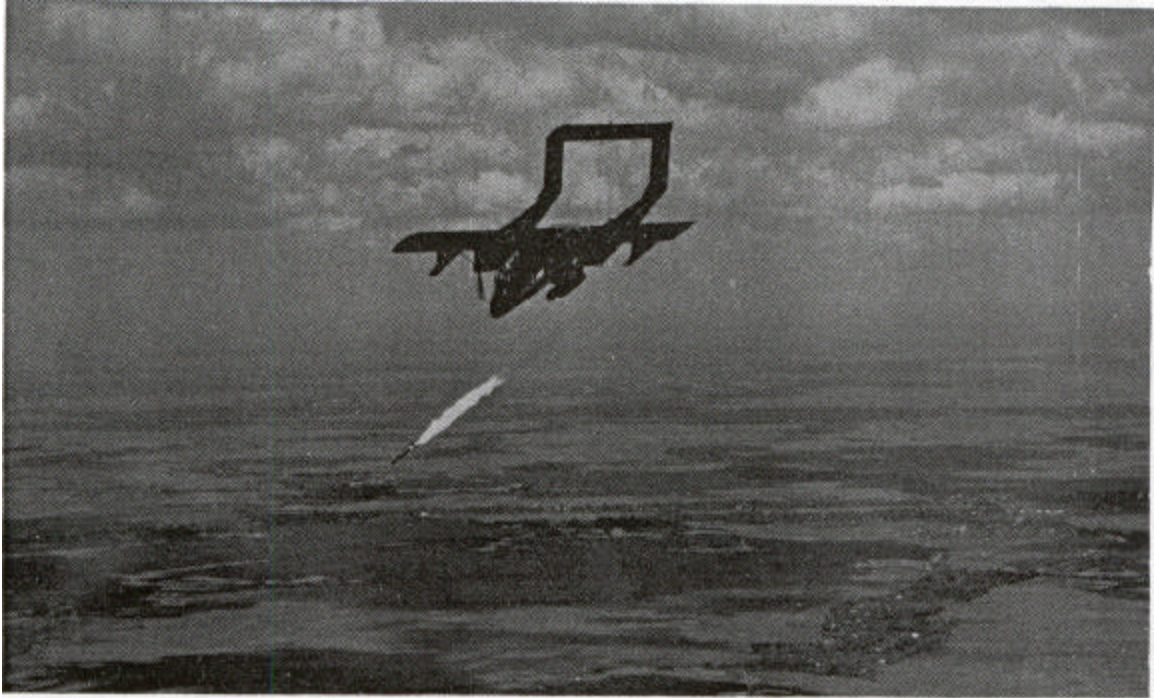


Above A US Navy monitor M-91-2 is seen underway on the Mekong River.

Below A monitor uses its flamethrower (Zippo) to destroy a Viet Cong ambush position.



Illustration 6



OV-10 Bronco

Illustration 7

PBR's were extremely adept for riverine operations. Adopted from a civilian boat design, PBR's were powered by diesel engines, and utilized the Jacuzzi waterjet propulsion system instead of propellers. This enabled the craft to operate in very shallow waters, at high rates of speed and with exceptional maneuverability. The design and utilization of the PBR on the waterways of the delta region were directly responsible for the success of the allied forces in the region.

Although effective in controlling the civilian and enemy activities on the rivers, more aggressive interdiction tactics were needed to further decrease the influx of supplies into the south, ground troops were needed to support the riverine patrols. Once again, operations had proven what the Bucklew Report found in 1964.¹⁷ The riverine craft and crews could control everything on the water but not enemy activity moving along the riverbanks and further inland. GAME WARDEN decreased the enemy shipments via sampans and junks on the major rivers in the region. The VC began crossing the rivers and tributaries and moving supplies overland along the riverbanks and further inland.

The South Vietnamese military leadership, mainly in the controlled IV Corps operating area, were very reluctant to supply the necessary ground forces needed to augment the riverine craft. Initially, they did not feel the commitment of ground forces would be able to affect the situation in the region. The GVN did not believe search and destroy operations were an efficient use of manpower and resources. When riverine operations shifted into the U.S. military controlled III Corps area, the support and commitment was entirely different, and so were the results.

¹⁷ Bucklew report, p9

In 1967 the Mobile Riverine Force (MRF), designated Task Force 117, was created involving 184 riverine craft from the U.S. Navy and VNN. The purpose of the establishment of TF 117 was to incorporate ground and air forces with the riverine craft in an attempt to control the activity moving along the riverbanks and further inland.

Ground support from the Vietnamese Army (ARVN), Vietnamese Marine Corps (VMC), U.S. Navy UDT, EOD and SEAL units, and the Second Battalion of the U.S. Ninth Infantry Division participated in TF 117 operations. These units, along with U.S. Navy and Army attack fixed and rotary wing aircraft, worked closely together to conduct “search and destroy” operations in the GAME WARDEN area of operations to include the Rung Sat Zone. Operations in the Rung Sat Zone involved clearing the riverbanks of enemy positions in order to keep the Long Tau shipping lane, which was the main supply route, open to Saigon from the South China Sea.¹⁸

¹⁸ Major General William B. Fulton, *Vietnam Studies: Riverine Operations 1966-1969*, (Washington, DC: Dept of the Army, 1973), 171-172.

Chapter 3: THE SEALORDS CAMPAIGN.

In September 1968, the highest-ranking Naval Officer to serve in Vietnam, VADM Elmo Zumwalt, took over as Commander, Naval Forces Vietnam (COMNAVFORV). Immediately upon taking command, he recognized stagnation in the U.S. riverine forces. Operations MARKET TIME, GAME WARDEN and TF 117 had established patrol patterns in delta the region: “By the time I arrived on scene, the interdiction mission had pretty much been accomplished as far as the coast and the main branches of the Mekong were concerned.”¹⁹ The enemy, recognizing these patterns, shifted strategy, and engagements became fewer and fewer. However, supplies were still streaming into the south. Zumwalt needed a new strategy, one that would boost morale, make effective use of his military forces and disrupt enemy activity in the region.

Zumwalt decided to focus his strategy on three main areas, bringing all the forces under his command to bear on the problem of the infiltration into the Mekong Delta and increasing the pacification efforts; closing the Rung Sat Zone to the enemy and keeping the Long Tau shipping lane open to Saigon; and developing and implementing a plan to increase the turnover of U.S. equipment to the Vietnamese.²⁰ The result of the focus on these areas was the development of Operation SEALORDS, designated Task Force 194.

SEALORDS’s basic objectives were the interdiction of Viet Cong infiltration from the Gulf of Thailand to the upper Mekong River; the control of the vital trans-Delta

¹⁹ Elmo J Zumwalt, Jr, *On Watch*, (New York Times Book Co:New York, 1976), p36.

²⁰ CDR R.L. Schreadley, USN, “The Naval War In Vietnam 1950-1970”, *Proceedings* Vol 97, no. 819, May 1971, 198.

inland waterways; and the penetration of rivers in the enemy-held Ca Mau Peninsula by MARKET TIME raiders to “stir up the enemy and keep him off-balance”.²¹

Intelligence determined the majority of supplies, an estimated 175-200 short tons each month, entering the III and IV Corps area, were entering Cambodia via Communist Chinese and Eastern Bloc ships offloading in the Cambodian port of Sihanoukville.²² The supplies were then transported via land to staging areas north of the Cambodia border and infiltrated into the south using the enemy’s Commo-Liaison and transportation people (See Illustration 8).²³ In order to halt the influx of these supplies, it was necessary that allied naval, air, and ground forces worked in conjunction with and supported each other to ensure mission success.

It was proven during TF 117 operations that ground forces were needed if the U.S. forces were to be effective in controlling the rivers, riverbanks, and associated terrain. As stated earlier, the support of the ground troops would prove to be difficult to obtain from the South Vietnamese Commander of the IV Corps zone due to his lack of confidence in the effectiveness of search and destroy operations. Successful riverine operations depended upon timely intelligence. The aggressive tactics and close joint coordination between air, ground, and naval forces provided the majority of the intelligence for operations.

The communists had reached their culminating point in the region during the Tet offensive of 1968 and were looking to rebound from their losses. After Tet 1968, the

²¹ CDR R.L. Schreadley, USN, “Sealords”, *Proceedings* Vol 96, no.8/ 810, August 1970, 24.

²² Commander Naval Forces Vietnam, “The Naval War In Vietnam”, June 1970 , p116

²³ CDR R.L. Schreadley, USN, “The Naval War In Vietnam 1950-1970”, *Proceedings* Vol 97, no. 819, May 1971,199.

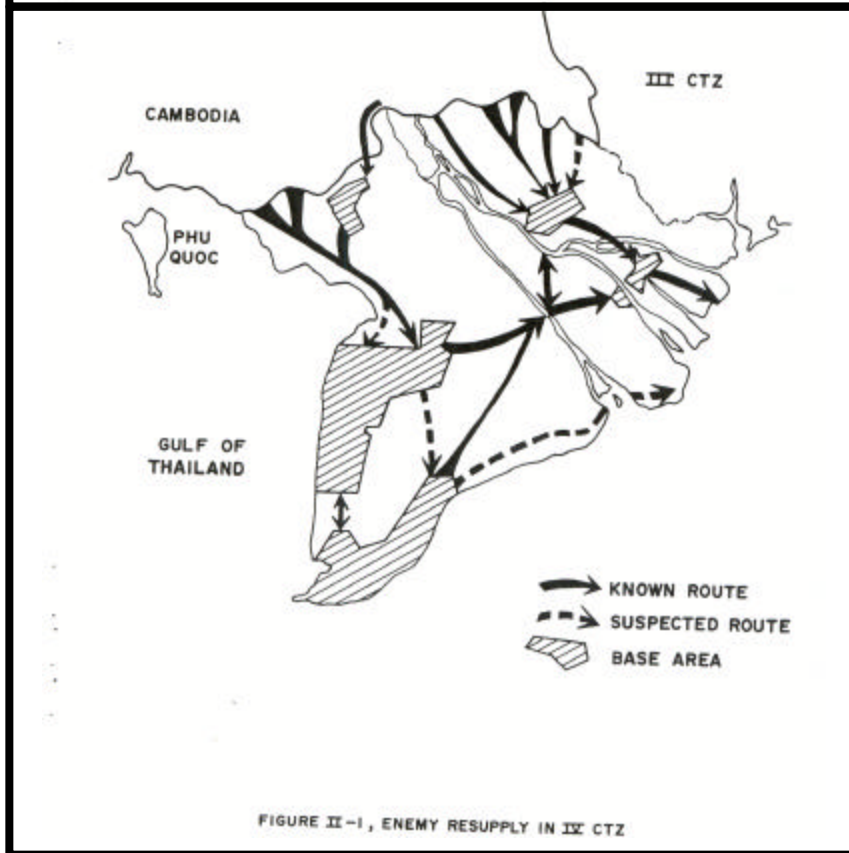
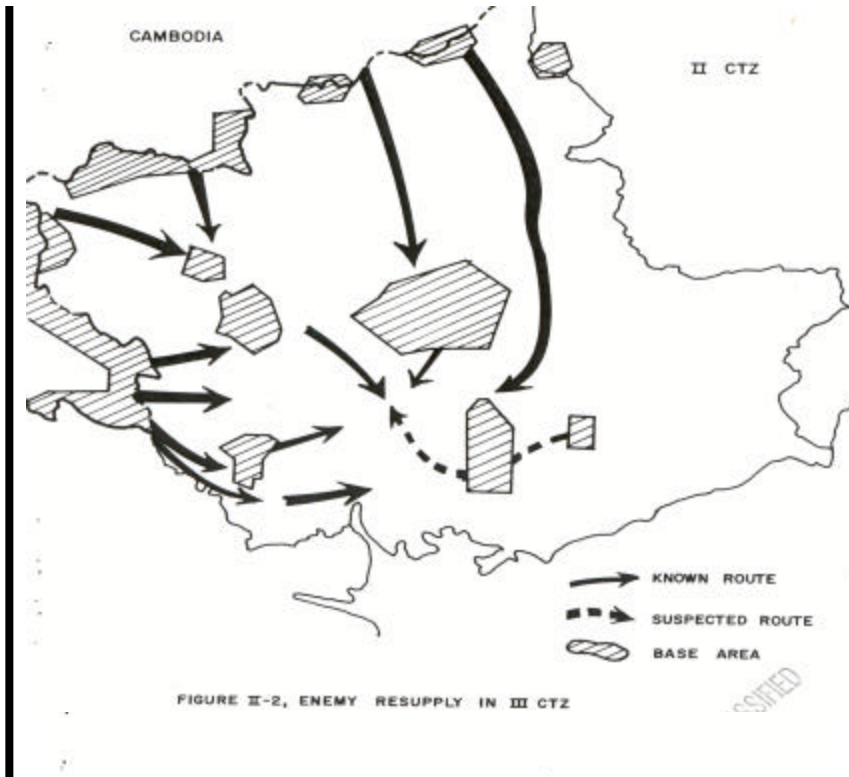


Illustration 8

communist operational strategy was to continue infiltrating supplies, men and other war material needed to sustain military operations “behind enemy lines” in South Vietnam through Cambodia. Until Operations MARKET TIME and GAME WARDEN, the communists accomplished this objective almost at will. Aided by the difficult terrain of swamps, rivers, and jungles as well as the inability and reluctance of the South Vietnamese military to effectively control the territory south and east of the Cambodia border, the enemy utilized the smaller rivers waterways to move supplies across the borders.

The U.S. military leadership, mainly the Army, concentrated on an operational strategy of search and destroy operations, generating a body count. This body count strategy was more for political appeasement of the home front and did not reflect reality and the actual progress of the war. Captain Robert S. Salzer, designated as SEALORDS Commander or “First SEALORD”, made the following comment on the U.S. overall operational strategy and desire for body counts in Vietnam:

“People want to do things like get a high body count. That goes into statistics some place and proves that you’re winning the war. In reality, what we should have been doing and concentrating on was an interdiction campaign against infiltration... The way to reduce the effectiveness of the enemy was to concentrate our resources, including our manpower, on interdiction of his movement – movement of weapons, primarily.”²⁴

SEALORDS was designed to be a proactive vice a reactive strategy. The U.S. military strategy was to search for and destroy the enemy forces already in the country of South Vietnam. The SEALORDS strategy was to stop enemy forces from entering the country in the first place as well as cutting off the supplies to the ones already operating

²⁴ Reminiscences of Vice Admiral Robert S. Salzer”, p79 of transcript 2, U.S. Naval Institute Oral History Collection.

in the country. The U.S. might have been more successful in Vietnam by conducting operations in accordance with the findings of the Bucklew Report and conducting Operation SEALORDS prior to Operations MARKET TIME and GAME WARDEN. Instead, the U.S. did the opposite and tried to drive the forces in country out without cutting lines of communication and supply routes. Vice Admiral Salzer recognized this during his tour as Commander, TF 117:

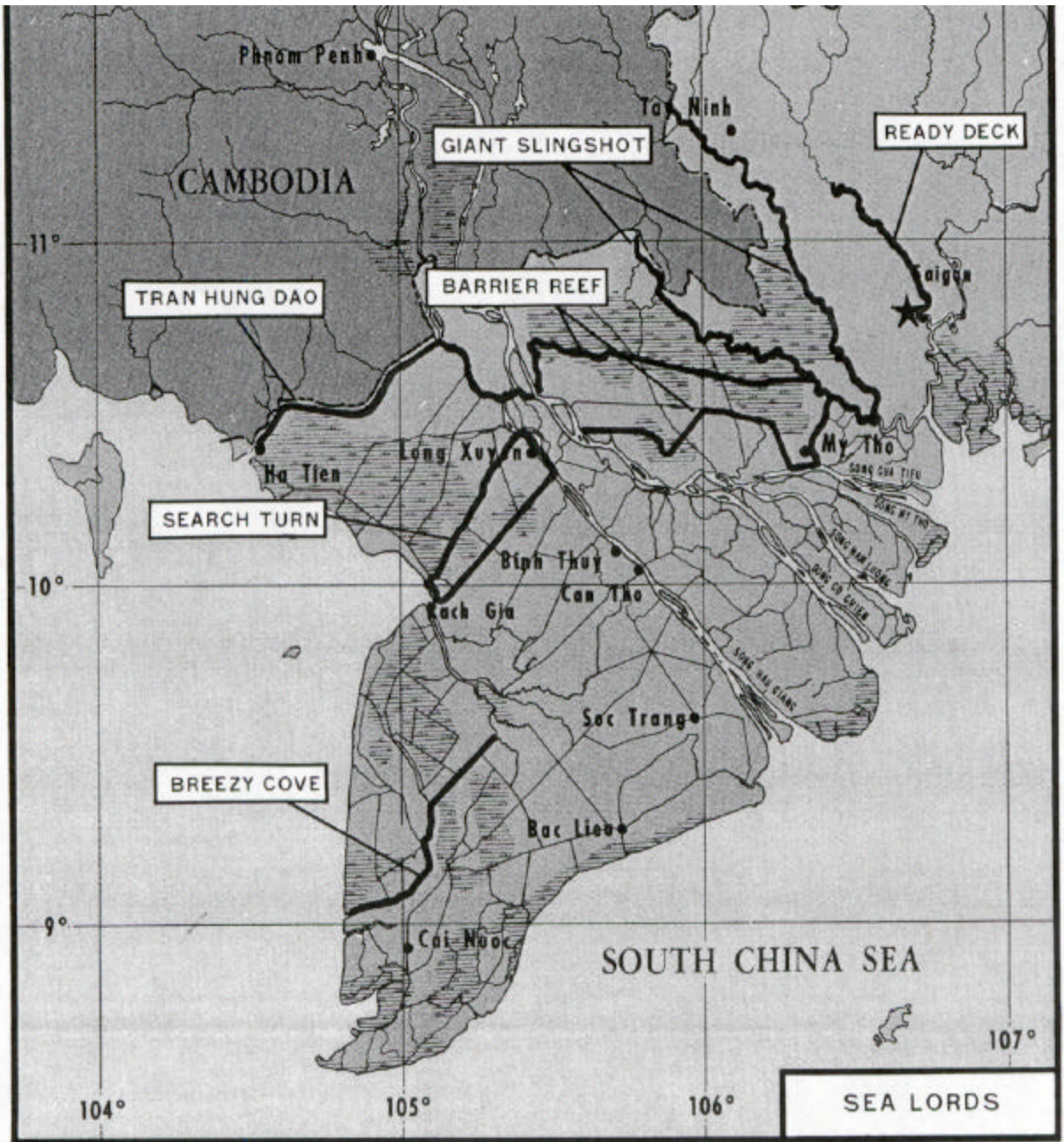
“At one time it was claimed that they [enemy supplies] were coming from the sea, but that turned out wrong. Others were claiming, and intelligence people said they had hard evidence, that they were coming into Cambodia and down the trail and then down through the Cau Mau peninsula around certain canal networks and our intelligence people said they had them pretty well identified.”²⁵

The SEALORDS campaign began with the promulgation of COMNAVFORV OPLAN 111-69 on 5 November 1968 and ended in April 1971 with the turnover of U.S. bases, equipment, supplies, maintenance procedures and infrastructure as well as the withdrawal of U.S. forces.²⁶ SEALORDS consisted of setting up “barriers” to interdict the enemy moving through the III and IV combat tactical zones (CTZs) and contiguous zones.²⁷ Four barriers were established, based mainly on the objective of interdicting the

²⁵ Reminiscences of Vice Admiral Robert S. Salzer”, p478 of transcript 10, U.S. Naval Institute Oral History Collection.

²⁶ Commander Naval Forces Vietnam Operations Analysis Branch, An Analysis OF Interdiction Barrier operations And Effectiveness On SEALORDS Operations Tran Hung Dao, Barrier Reef, and Giant Slingshot, (Analysis Paper), July 1970, p I-1, OANHHC, Washington, DC.

²⁷ Analysis Paper I-1



The SEA LORDS Campaign

Illustration 9

communist infiltration routes from the Gulf of Thailand to the upper Mekong River (See Illustration 9). The initial objectives of SEALORDS, although later expanded, were:

- a. The interdiction of Viet Cong infiltration routes from Cambodia along canals from the Bassac to the Gulf of Thailand.
- b. Pacification of selected Trans-Delta waterways.
- c. Pacification and clearance of the Bassac Islands, namely Tan Dinh and Dung Islands.
- d. Harassment of the enemy to keep him off balance.²⁸

The four barrier operations were code named SEARCH TURN, FOUL DECK, GIANT SLINGSHOT, and BARRIER REEF. These barriers were established in areas that intelligence had determined to be known major infiltration routes.²⁹ The establishment of each barrier effectively and systematically denied the enemy the uninterrupted use of the land and waterways in the III and IV Corps areas of operation and formed something that is thought of as elusive in a guerilla war, a front line³⁰.

The command structure of SEALORDS was de-centralized giving the commanders and individual riverine craft Patrol Officer's a great deal of responsibility and flexibility in the conduct of day-to-day operations. The units involved in the SEALORDS campaign were "borrowed" from TF 115, TF 116, and TF 117 to conduct operations. COMNAVFORV was designated CTF 194. Capt. Salzer, designated by VADM Zumwalt as the Commander of SEALORDS, became CTG 194.0 with

²⁸ Operation SEALORDS Summary, COMNAVFORV Monthly Historical Summary November 1968, 1, OANHC.

²⁹ Analysis Paper II-1

³⁰ John Forbes and Robert Williams, "The Illustrated History of Riverine Force The Vietnam War", (New York: Bantam Books, 1987), 119.

operational control of three task groups: TG 194.5, Coastal Raiding and Blocking Group; TG 194.6 River Raiding and Blocking Group; and TG 194.7, Riverine Strike Group. The task force commanders from TF 115, TF 116, and TF 117 were designated to command each SEALORDS operation. CTF 115 commanded all SEALORDS incursions from the sea, CTF 116 commanded riverine and blocking operations, and CTF 117 commanded the “riverine strike operations involving large commitments of ground forces”.³¹

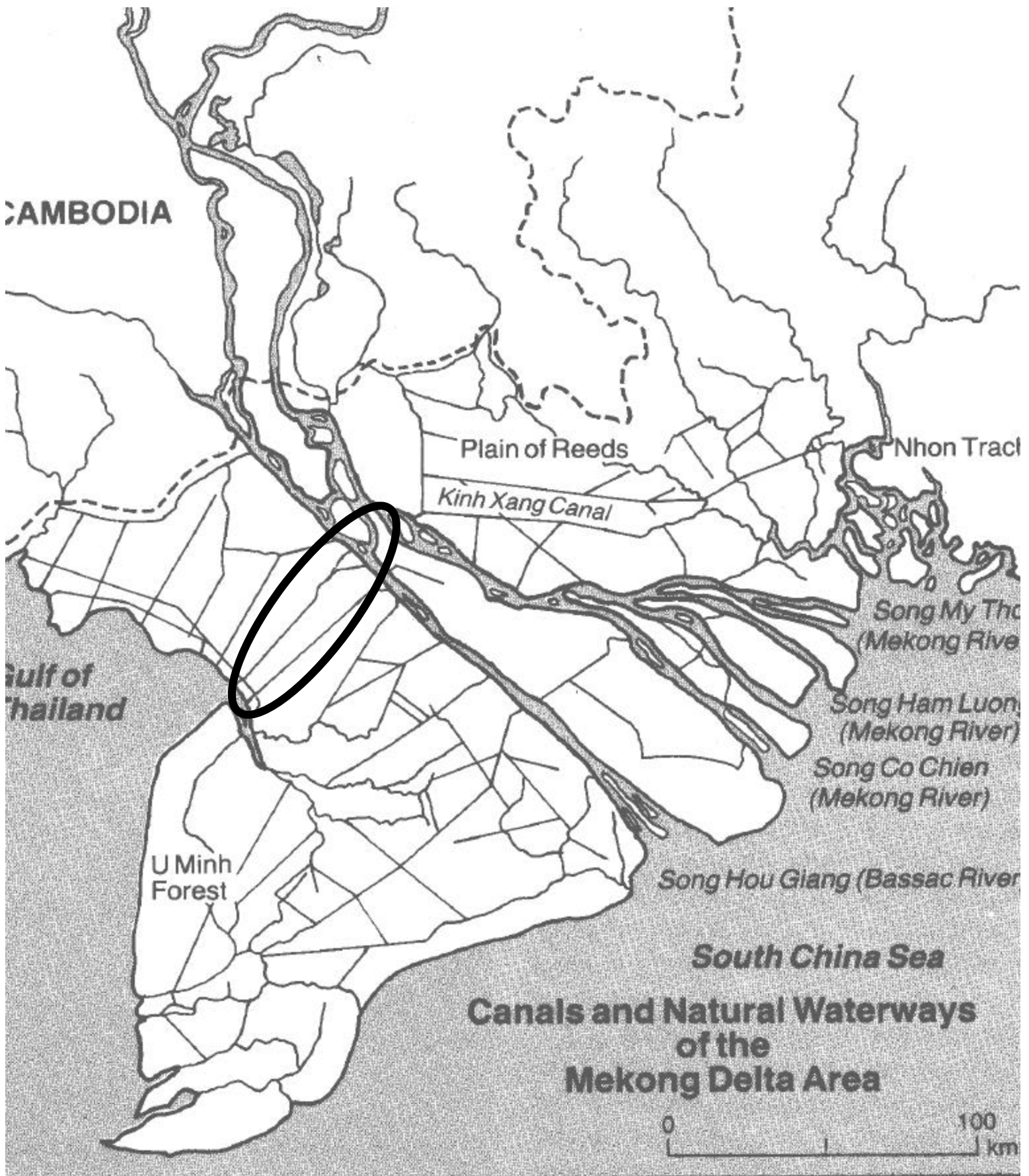
Elements of each task force were “chopped” to conduct SEALORDS operations while the remainder of the task force continued with their initially assigned missions. As each barrier was established, the operations forced the MARKET TIME PCF’s to move from the sea into the larger rivers, taking over the areas of responsibility, which were patrolled by GAME WARDEN PBR’s. This enabled the shallower draft PBR’s to move further up river and operate in the shallower waters of the SEALORDS operating area.³²

It was determined that the best location to begin interdiction operations of supplies entering the south from Cambodia was on the Rach Giang and Vinh Te Canal (See Illustration 10). This canal makes up the border between Cambodia and South Vietnam; however, due to extreme political sensitivities and the risk of border incidents with neutral Cambodia, it was determined to establish two borders 35 and 40 miles to the southeast. These two canals, the Rach Gia di Long Xuyen and the Cai San, would “form a double barrier and inaugurate the SEALORDS interdiction campaign” forming an “Interdiction in depth”.³³

³¹ CDR R.L. Schreadley, USN, “Sealords”, *Proceedings* Vol 96, no.8/ 810, August 1970, 25.

³² CDR R.L. Schreadley, USN (Ret), *From The Rivers To The Sea, The United States Navy In Vietnam*, (Annapolis, MD: Naval Institute Press, 1992), 150.

³³ CDR R.L. Schreadley, USN, “Sealords”, *Proceedings* Vol 96, no.8/ 810, August 1970, 25.



Operation SEARCH TURN

Illustration 10

On 02 November 1968, the first assault on enemy positions on the Rach Gia Di Long Xuyen Canal formally established the barrier. The operation, codenamed SEARCH TURN, lasted five days and produced 21 enemy dead as well as captured supplies and ammunition.³⁴ Regular river patrols began on and around these two canals creating a continuous forward U.S. naval presence, hampering the enemy's movement.

The initial SEARCH Turn operation influenced "the South Vietnamese Government officials to continue development along the canals in terms of outpost development, hamlet resettlement, and intensified use of province and VNN boats."³⁵ This operation helped the local Vietnamese Regional Force (RF) and Popular Force (PF) troops gain confidence and credibility in conducting ground sweep operations in conjunction with the riverine craft. This confidence enabled them to become more active and aggressive in the conduct of operations away from their base camps where they usually remained.

Other SEARCH TURN operations included the clearing of the Cho Gao Canal of VC-built navigation hazards. The building of these types of hazards proved the effectiveness the patrols were having on the enemy's activities in the area. These clearing operations made the canal open for navigation for the allied forces and civilian population, supporting the objective of pacification, as well as interdiction operations on various canal on the western edge of the barrier running north towards the Cambodian border. The patrols in this area were designed to interdict the main Communist Commo-

³⁴ CDR R.L. Schreadley, USN, "Sealords", *Proceedings* Vol 96, no.8/ 810, August 1970, 25.

³⁵ Operation SEALORDS Summary, COMNAVFORV Monthly Historical Summary November 1968, 1, OANH.C.

Liaison line into South Vietnam.³⁶ This Commo-Liaison line provided the vital command, control, and logistical link for the communist forces operating in the south.

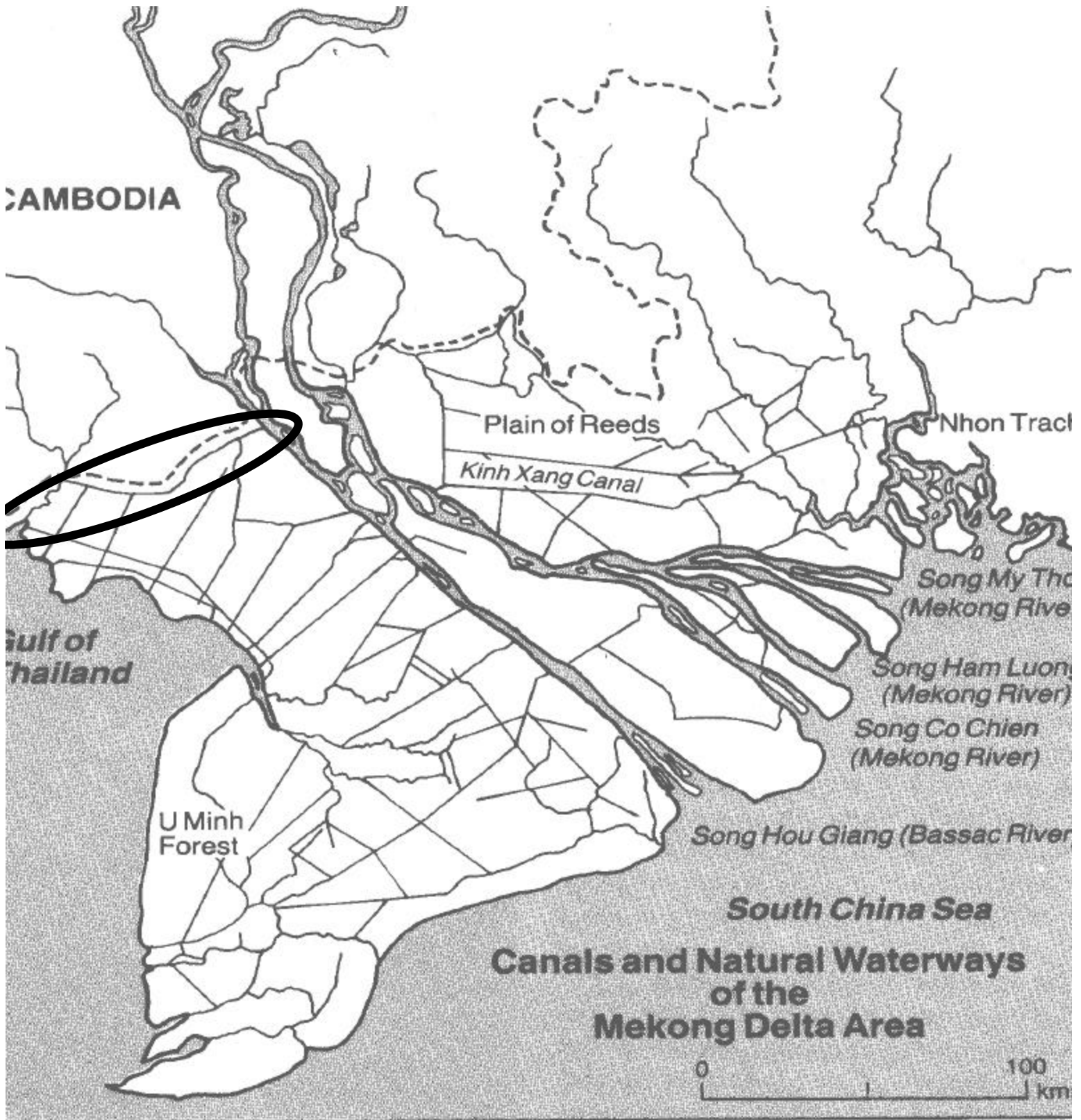
Although this barrier in depth did not produce a great deal of results, it did prove that enemy supplies were moving in the area. Additionally, the operation had established a continuous presence in the area. SEARCH TURN provided the “jumping off” point for the extension of the subsequent barriers into the more active areas such as the Parrots Beak and Plain of Reeds regions closer to Saigon.

Operation FOUL DECK, later re-named Tran Hung Dao I when the VNN took over, established the second barrier of the SEALORDS campaign on 14 November 1968 (See Illustration 11). This barrier was established as a result of the initiative and drive for mission accomplishment that epitomized the attitude of the sailors of the brown water navy. Lieutenant (j.g.) Michael Bernique, USNR, and his PCF crew were on rest and relaxation (R&R) in the city of Ha Tien after conducting MARKET TIME patrols. The PCF crew received intelligence from friendly Ha Tien locals of a VC tax collection station located on the Rach Giang Thanh Canal. This canal, a prohibited operating area for U.S. forces due to the close proximity to Cambodia, was the same canal initially identified as the optimum location to conduct interdiction operations prior to SEARCH TURN.³⁷

Lieutenant (j.g.) Bernique and his PCF crew acted on the intelligence and proceeded up the river, engaging the VC tax collection station, killing five VC and

³⁶ CDR R.L. Schreadley, USN, “Sealords”, *Proceedings* Vol 96, no.8/ 810, August 1970, 26.

³⁷ Commander Naval Forces Vietnam, “The Naval War In Vietnam”, June 1970 , pp135-136.



Operation FOUL DECK
 Illustration 11

wounding two more.³⁸ Recognizing that this was the kind of initiative he wanted in his sailors, VADM Zumwalt awarded Lieutenant (j.g.) Bernique the Silver Star, instead of court martialling him for conducting unauthorized operations in a prohibited, politically contested area. This operation led to the first “official” operation on the Rach Giang.

On 16 November 1968, two separate tax collection stations were engaged on the Rach Giang Thanh Canal by the allied boats, led by Lieutenant (j.g.) Bernique. The enemy forces were caught by surprise at both locations and were swiftly neutralized. The Rach Giang Thanh Canal became known as “Berniques Creek” thereafter.³⁹ This successful raid resulted in the Cambodian government, with some Communist prodding filing formal complaints through the International Control Commission in order to halt the patrols through political means. The complaint was later dismissed when intelligence confirmed the tax collection stations were VC operated.⁴⁰

FOUL DECK became the second most active barrier operation, in terms to enemy contacts, during the SEALORDS campaign.⁴¹ The allied forces now effectively controlled the western flank of the delta region. The continuous presence of naval forces forced the enemy to move further east along the Cambodian border to avoid contact. Defectors and enemy personnel captured during operations confirmed that the operation severely hampered the flow of supplies across the border but never totally stopped

³⁸ CDR R.L. Schreadley, USN, “Sealords”, *Proceedings* Vol 96, no.8/ 810, August 1970, 25.

³⁹ John Forbes and Robert Williams, “The Illustrated History of Riverine Force The Vietnam War”, (New York: Bantam Books, 1987), 126

⁴⁰ CDR R.L. Schreadley, USN, “Sealords”, *Proceedings* Vol 96, no.8/ 810, August 1970, 26.

⁴¹ Thomas J Cutler, LCDR, USN, *Brown Water Black Berets*, (Annapolis, MD: Naval Institute Press, 1988), 294

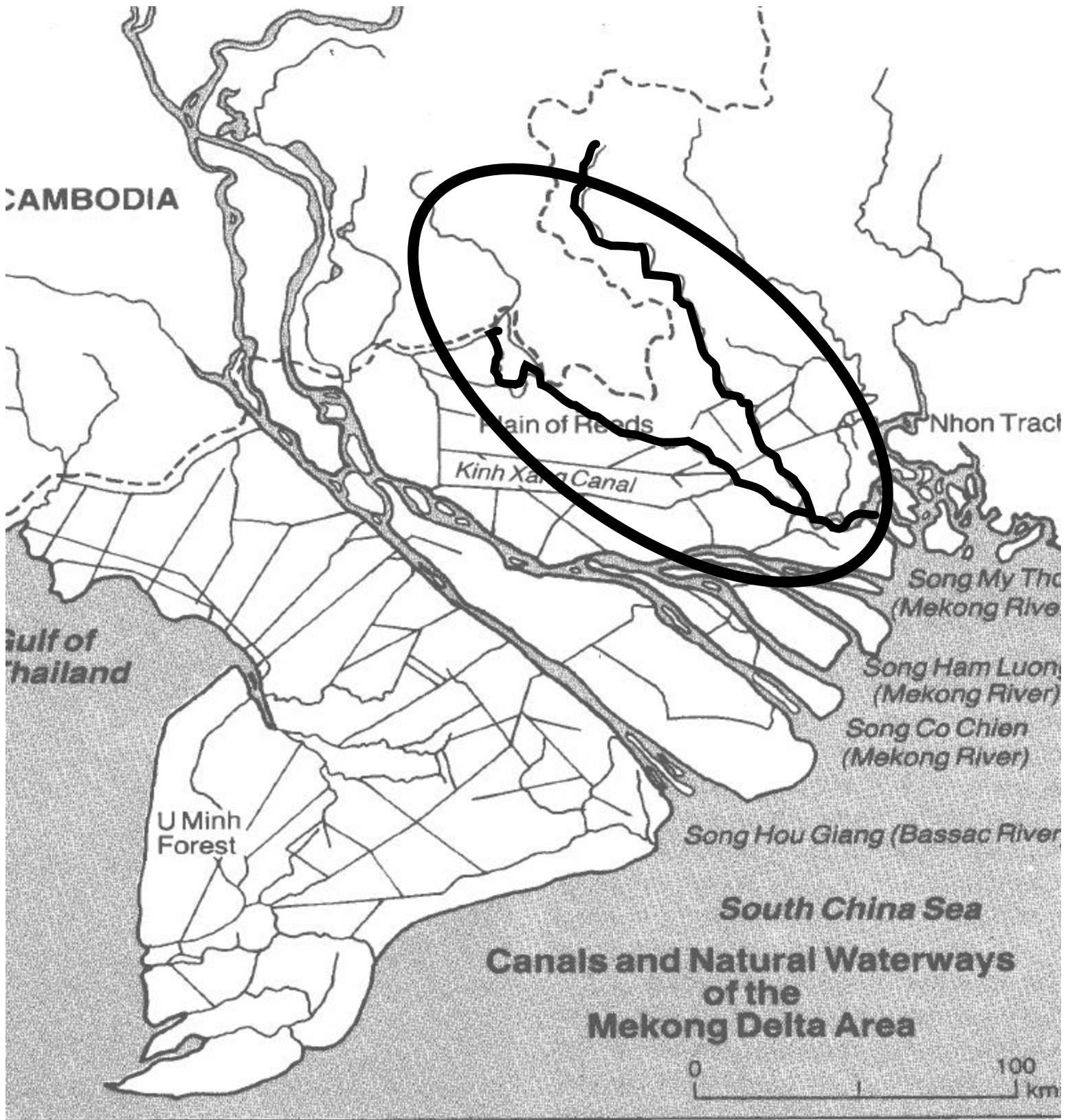
everything. The VNN took over the operation in March 1970 in which it became known as Tran Hung Dao I.⁴²

The first two barriers had been established and were hampering the communist movement of supplies and men in the IV Corps area. On 06 December 1968, the third and largest barrier, codenamed GIANT SLINGSHOT, was established in the III Corps area on the Vam Co Dong and Vam Co Tay rivers straddling the “Parrots Beak”, a region of Cambodia that protrudes into South Vietnam to within 25-30 miles west of Saigon (See Illustration 12). The enemy supply line was very active in this area due to the close proximity to Saigon as well as the effects of operations SEARCH TURN and FOUL DECK.

Up to this point in the SEALORDS campaign, ground support in the interdiction effort was handled mainly by Vietnamese troops from the IV Corps area, which, as stated earlier, were reluctant to cooperate. The III Corps area was dominated mainly by the U.S. Army II Field Force Vietnam (FF II V). The Commanding General of FF II V approved the commencement of Operation GIANT SLINGSHOT and agreed to provide the necessary ground forces.

The GIANT SLINGSHOT barrier was the largest operation in terms of area to cover and ground support provided and became the most active barrier of the three established at the time. The operation was conducted in the U.S. military controlled III Corps area which were more willing and prepared to supply the necessary ground forces to augment the river patrol craft. The main U.S. forces involved were troops from the

⁴²Edward J. Marolda, *By Sea, Air and Land: An Illustrated History of The U.S. Navy And The War In Southeast Asia*, (Washington, DC: Naval Historical Center, 1994), 287.



Operation GIANT SLINGSHOT

Illustration 12

Second Battalion, Ninth Infantry Division. These troops had experience in riverine operations while working with TF 117 prior to SEALORDS.

GIANT SLINGSHOT lasted 515 days and produced five times as many firefights, one hundred and fifty times the tonnage of munitions caches uncovered, three hundred times more tonnage of supply caches uncovered, five times the number of confirmed enemy kills, and two hundred times the number of enemy capture as the previous two operations in the first two months⁴³.

Another illustration of the level of effectiveness operation GIANT SLINGSHOT was having was outlined in the COMNAVFORV Monthly Summary message for January 1969. During this particular month, 44 enemy caches were discovered with the following amount of material captured:

188,000 rounds small arms ammunition. 3,000 rounds heavy machine gun ammunition. 355 B-40 rockets. 3 122-mm rockets. 361 RPG-2 rounds/boosters. 678 recoilless rifle rounds (57mm - 373, 75mm – 305). 1,810 mortar rounds (60-mm – 949, 82-mm – 861). 2,000 pounds of explosives plus detonators, primacord, etc. 1,914 grenades (anti-tank, 40-mm, CHICOM, homemade, etc.) 313 mines, booby traps, bangalore torpedoes, claymores, etc. 112 individual weapons. 22 sampans plus 5 sampan motors. 55 miscellaneous clothing, personal equipment, camp gear and medical supplies. 31,000 pounds of rice. ⁴⁴
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Table 1

⁴³ CDR R.L. Schreadley, USN, "Sealords", *Proceedings* Vol 96, no.8/ 810, August 1970, 30.

⁴⁴ Operation SEALORDS Summary, COMNAVFORV Monthly Historical Summary January 1969, 1, OANHC

GIANT SLINGSHOT operations were also costly for the allied forces during this month. There were 68 enemy engagements resulting in 24 allied killed in action, 2 missing in action, 88 wounded in action, 23 craft damaged and 2 PBR's sunk.⁴⁵ The estimated enemy losses in addition to the supplies listed above included 70 killed in action, 9 wounded in action, 20 captured, 25 other suspects detained, 228 structures destroyed and 49 junks or sampans destroyed.⁴⁶ The enemy reaction to the GIANT SLINGSHOT operations was the fiercest throughout the campaign.

There were numerous new and innovative tactics developed during GIANT SLINGSHOT. Lessons learned from previous riverine operations as well as successful enemy tactics used against allied craft were modified and utilized during the operation. One such tactic, still employed by Naval Special Warfare riverine forces today, was the "waterborne ambush" or "waterborne guard-post" (WBGP). This tactic consisted of boats stealthily moving into positions along the riverbanks and waiting and listening for enemy movement on the rivers or riverbanks. Once contact was established, the boats would engage the enemy and call in fire support from attack rotary and/or fixed wing aircraft, artillery, or other boats in the area. Ground troops would be called in after contact was broken to sweep the area and confirm enemy killed and collect intelligence. This tactic had a great psychological and physical effect on enemy movements in the areas employed.

Another tactic called "Bushwhack Ops" carried the waterborne guardpost tactic one step further. Platoon sized ground elements were deployed from the boats to set up an

⁴⁵ Operation SEALORDS Summary, COMNAVFORV Monthly Historical Summary January 1969, 1, OANHC

⁴⁶ Ibid

ambush a couple of hundred yards inland from the boats. Once contact was made, the initiation of the ambush gave the boats early warning of enemy movement in the area. Also the boats provided the ground troops with immediate extraction and fire support platforms.⁴⁷ Other tactics such as the employment of electronic sensors to detect enemy movement, known as Operation DUFFLE BAG, as well as mining of areas around the riverbanks known to be frequently traveled by the enemy, also contributed to the overall effort of the GIANT SLINGSHOT effort.

Other joint GIANT SLINGSHOT operations, conducted with the U.S. Army, consisted of troops being inserted by the boats and conducting sweep operations while the boats provided blocking force positions. Operations, such as Operation KEEL HAUL II, utilized U.S. Army troops from the First Air Cavalry Division as a quick reaction force, delivered via helicopter, to an area where boats had made enemy contact. These operations produced limited results and were very short in duration drawing limited support from Army commanders.

U.S. involvement in GIANT SLINGSHOT operations ended in May 1970. During the 515 days of the operation, 38 U.S. Navy personnel had been killed, and 518 wounded in action. The number of wounds received during the operation was greater than the number of personnel involved in the operation.⁴⁸ These statistics brought some criticism among military leaders. However, it is also recognized that the effectiveness of the operation prevented large-scale offensives by the enemy in the region surrounding the capital city of Saigon.

⁴⁷ LCDR Thomas J Cutler, USN, *Brown Water Black Berets*, (Annapolis, MD: Naval Institute Press, 1988), 302

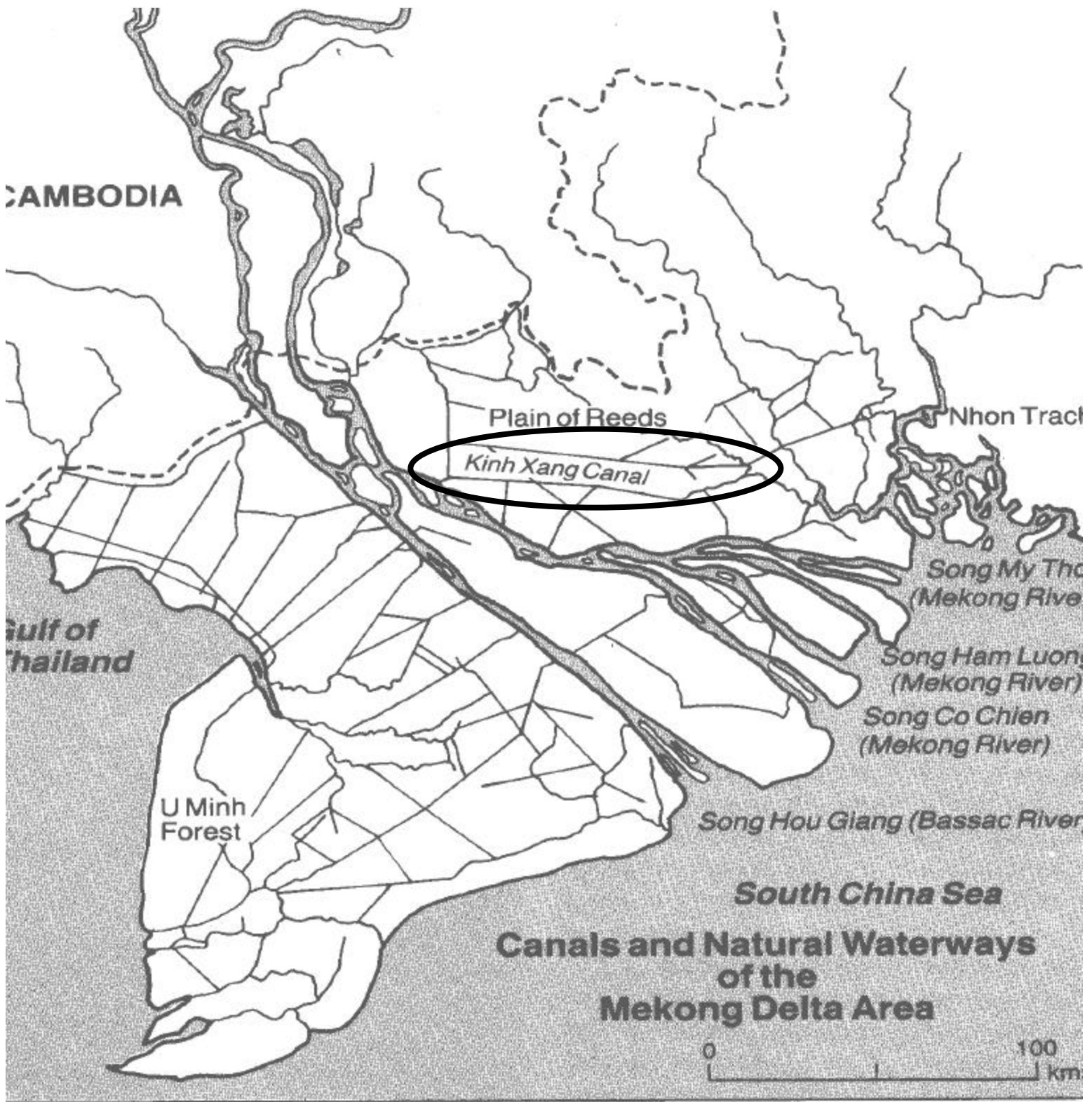
⁴⁸ *Ibid*, 306

The fourth and final SEALORDS barrier was established 02 January 1969. This barrier, code named BARRIER REEF, set the northern parameters for SEALORDS by conducting operations on the La Grange–Ong Lon Canal connecting GIANT SLINGSHOT with SEARCH TURN barriers (See Illustration 13). With the establishment of BARRIER REEF, SEALORDS now had a two hundred mile long continuous barrier being routinely patrolled, seriously degrading the enemy’s ability to move supplies and men into the south from Cambodia.⁴⁹ Establishment of this barrier disrupted the enemy operations in what was known as “no mans land” or the Plain of Reeds region near Saigon.

The establishment of the SEARCH TURN and FOUL DECK barriers in the west had forced the enemy to keep moving northeast along the Cambodian border to be able to conduct cross border operations. The increasing number of enemy engagements during the development of each barrier during the SEALORDS campaign seemed to indicate the effectiveness the campaign was having. The enemy, fearing the quick response of supporting aircraft and knowing they usually did not operate or were not as effective during hours of darkness, moved mostly at night. In order to counter this tactic, three out of every four SEALORDS patrols/operations occurred at night, adding to the success of campaign operation by surprising the enemy when he felt the safest.⁵⁰

⁴⁹ CDR S.A. Swarztrauber, USN, “River Patrol Relearned”, *Proceedings* Vol 96, no.5/807, May 1970,155.

⁵⁰ John Forbes and Robert Williams, “The Illustrated History of Riverine Force The Vietnam War”, (New York: Bantam Books, 1987), p 130-131.



Operation BARRIER REEF

Illustration 13

There were numerous “indicators” as to the effect the barrier operations were having on the enemy. The actual successes achieved during the operation are difficult to determine; however, statistics provide some insight into damage inflicted on the enemy. The COMNAVFORV Operations Analysis Branch analysis on SEALORDS Barrier operations judged barrier effectiveness by “Indirect and Direct Indicators of Effectiveness (IOE’s).”⁵¹

Indirect indicators are things that the enemy did or did not do, that were out of the ordinary, or that provided indicators that the barriers were being effective. Such activities as enemy operations being conducted during daylight hours, no enemy contact or firefights in areas of known activity, levels of successful pacification in an area, or the enemy mounting attacks on allied forces were indicators that the barrier operations were being effective.⁵² For instance, an increase in the numbers of enemy ambushes, mining of patrolled waterways, and sapper attacks on SEALORDS operating bases all indicated that the operations were effective.

Direct IOE’s were things that were known to hamper the enemy’s efforts for operations. Captured enemy personnel providing detailed data on supply shortages of weapons, food or other supplies and the effect these shortages had on operations were examples of Direct IOE’s.⁵³ The analysis conducted by COMNAVFORV staff concluded that the barriers were effective in causing major operational problems for the enemy by forcing them to stockpile supplies and causing delays in delivery of materials needed to mount major operations.⁵⁴

⁵¹ Analysis Paper V-3

⁵² Analysis Paper V-2

⁵³ Analysis Paper V-4

⁵⁴ Analysis Paper VII-1

The following chart illustrates the effectiveness of each of the barriers of the SEALORDS campaign during the first two months from November 1968 through January 1969:⁵⁵

Operation	Firefights	Munitions Caches Uncovered	Other Caches Uncovered	Confirmed Enemy Killed	Enemy Captured
SEARCH TURN	200	14 (11.0 TONS)	1 (1.0 TONS)	219	27
Tran Hung Dao (FOUL DECK)	276	3 (11.4 TONS)	0	470	26
GIANT SLINGSHOT	1044	244 (137.0 TONS)	22 (384.9 TONS)	1,910	232
BARRIER REEF	77	1 (0.4 TONS)	0	189	46

Table 2

Timely intelligence was the key to success or failure of every SEALORDS operation. Intelligence from other government agencies as well as military units had brought to light the infiltration problem that had led to the conception of SEALORDS. Units operating during the SEALORDS campaign often collected and quickly acted upon their own intelligence. Allied forces often conducted missions in areas of previous enemy activity or where intelligence, either through allied collection missions or through captured or defected personnel, determined activity was going to occur. The decentralized chain of command made the mission approval and execution process quicker and easier to accomplish.

⁵⁵ Major General William B. Fulton, *Vietnam Studies: Riverine Operations 1966-1969*, (Washington, DC: Dept of the Army, 1973), 172

Forces such as the U.S. Navy SEAL's conducted intelligence gathering missions, reconnaissance patrols, and the capture of key VC personnel to include Tax Collectors and local village government officials collaborating with the VC. U.S. Army reconnaissance aircraft vectored in river patrol craft, carrying ground forces, to conduct insertions and extractions for search and destroy missions. Camouflaged PBR's silently waited in waterborne ambushes, or waterborne guard posts, for unsuspecting sampans and enemy personnel crossing the rivers. Intelligence collected from these types of operations formed the basis for what type of follow on mission would be conducted. Operational success was dependant on good intelligence, good timing among allied forces, and a quick, decisive tempo of execution.

As the barrier operations progressed, intelligence revealed more and more how the enemy operated. Allied ground and naval forces learned and utilized the enemy's tactics, techniques and procedures against enemy forces engaged. Intelligence efforts, through active and passive collection, learned how the enemy operated and in turn helped allied forces to adjust or invent new procedures to counter the enemy's actions. For instance, intelligence helped determine that when enemy force did initiate firefights against the boats, they were only trying to divert the attention of the boats away from the main infiltration or crossing areas.⁵⁶ Intelligence efforts also determined the enemy had developed an "extensive and efficient early warning system of agents and observation posts."⁵⁷ This system made the concept of allied boats patrolling at night along the waterways ineffective in stopping the infiltration or crossings of personnel and equipment

⁵⁶ Analysis Paper II-5

⁵⁷ Analysis Paper III-2

ineffective because the enemy would just wait for the boats to exit the area and then conduct the crossing.⁵⁸

The success of the SEALORDS campaign could not have been accomplished without the joint combined efforts of the U.S. and South Vietnamese forces. As GAME WARDEN had proven, without ground forces operating in conjunction with naval and air forces, it would have been impossible to achieve the level of success that the campaign did. The U.S. Army provided artillery, situated on and off the boats (See Illustration 14), as well as fixed and rotary wing reconnaissance, attack, and lift platforms. U.S. Navy “Seawolves”, OV-10 “Black Ponies” attack aircraft, and U.S. Army artillery provided on-call dedicated fire support for allied forces conducting SEALORDS operations.

In two separate instances in May 1969, U.S. Army “Skycrane” helicopters lifted PBR’s to inaccessible rivers in the upper Saigon and Cai Cai rivers, achieving tactical surprise, and serving notice to the enemy that none of the rivers were safe (See Illustration 15).⁵⁹ These skycrane operations were in support of a new interdiction barrier named READY DECK. Operation READY DECK, or TRAN HUNG DAO V, covered the Saigon River from Dau Tieng to Saigon (See Illustration 16). This operation was designed to stop what Zumwalt called the “end run” or the enemy’s movement away from the GIANT SLINGSHOT barrier operations to continue the infiltration of men and supplies to forces near Saigon.⁶⁰ This new barrier complemented to the existing four barriers. The need for this barrier testified to the effectiveness of other four barriers.

⁵⁸ Analysis Paper III-2

⁵⁹ Major General William B. Fulton, *Vietnam Studies: Riverine Operations 1966-1969*, (Washington, DC: Dept of the Army, 1973), 183.

⁶⁰ CDR R.L. Schreadley, USN (Ret), *From The Rivers To The Sea, The United States Navy In Vietnam*, (Annapolis, MD: Naval Institute Press, 1992), p271. Commander Naval Forces Vietnam, “The Naval War In Vietnam”, June 1970 , pp279-286

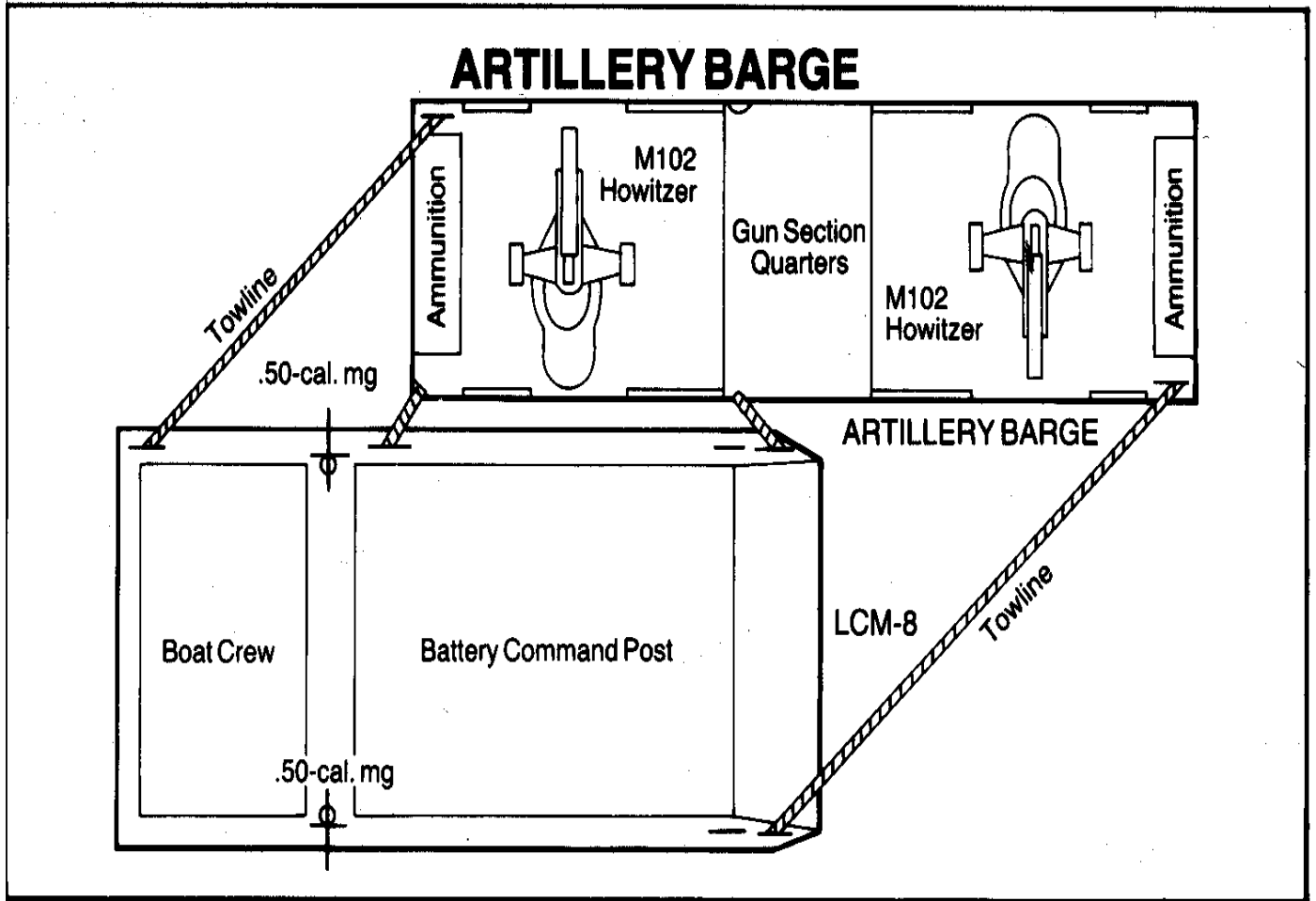
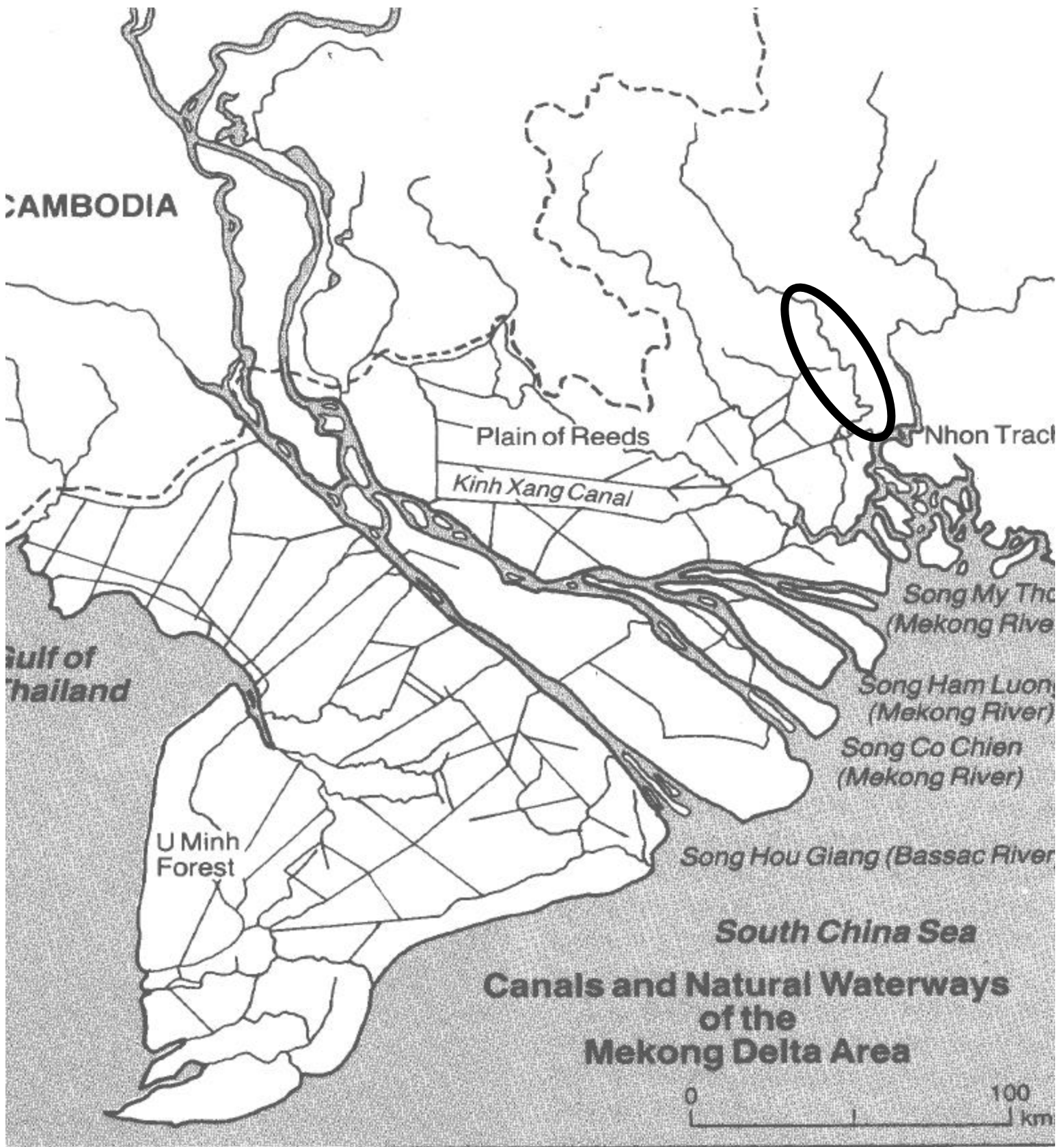


Illustration 14



Illustration 15



Operation READY DECK

Illustration 16

An example of a typical SEALORDS operation occurred from 10-14 January 1969, illustrating “one of VADM Zumwalt’s favorite concepts – synergism”.⁶¹ The NVA 528th Heavy Weapons Company and 250-300 VC attempted crossings near the BARRIER REEF operation line on the Grand Canal. Through a combination of intelligence collection efforts, U.S. Navy PBR’s, Army air assets and South Vietnamese Popular Forces providing ground support, the enemy was successfully engaged and his attempts to move men and supplies into South Vietnam aborted.⁶² The comments of Commander, United States Military Assistance Command Vietnam (COMUSMACV) regarding the operation illustrates how most of the SEALORDS operations were conducted:

“Though this so-called showdown on the Grand Canal was not a pre-planned exercise of integrating elements for the purpose of destroying an enemy unit or capturing a weapons system, it is an excellent example of how the sum of the results of separate agencies working together can be more effective than the sum of the results of these agencies working independently”.⁶³

In 1970, the Cambodian government had effectively cut off the NVA/VC use of the port of Sihanoukville; however, intelligence estimates predicted that the enemy could survive for six months to one year on previously stored caches of materials.⁶⁴ Intelligence also determined, as it was well known, that the VC and NVA controlled the entire Vietnam/Cambodian border up to 20 kilometers into Cambodia.⁶⁵ Something had to be

⁶¹ Major General William B. Fulton, *Vietnam Studies: Riverine Operations 1966-1969*, (Washington, DC: Dept of the Army, 1973), 183.

⁶² CDR R.L. Schreadley, USN (Ret), *From The Rivers To The Sea, The United States Navy In Vietnam*, (Annapolis, MD: Naval Institute Press, 1992), 200-201.

⁶³ CDR R.L. Schreadley, USN (Ret), *From The Rivers To The Sea, The United States Navy In Vietnam*, (Annapolis, MD: Naval Institute Press, 1992), 201-202.

⁶⁴ Operation SEALORDS Summary, COMNAVFORV Monthly Historical Summary April 1970, p iv, OANHC.

⁶⁵ Operation SEALORDS Summary, COMNAVFORV Monthly Historical Summary April 1970, p iv, OANHC.

done to show support for the failing Cambodian Government and to stir up the enemy, causing further disruption and confusion in his operations along the Cambodia/South Vietnam border.

In April 1970, the allied force had undertaken a bold and challenging move in the conduct of border interdiction operations. The U.S./GVN conducted the first cross border operations into Cambodia utilizing SEALORDS forces. U.S. forces were not permitted to participate in operations stretching far into Cambodia, past Neak Luong, due to the political sensitivities.⁶⁶

The VNN SEALORDS forces did conduct riverine operations all the way up the Mekong River to the Cambodian capital of Phnom Penh. The success and overall performance of the VNN during these operations accelerated the turnover of the border operations to the VNN. These cross border operations posed numerous challenges to the allied force to include fire support, in the terms of air and artillery support, as well as providing forward logistical support for the craft and men. The environment in which all SEALORDS operations were conducted posed unique and challenging logistics problem. MARKET TIME and GAME WARDEN operations were conducted in deeper water where the larger U.S. Navy Landing Ship Tanks (LST's) could be used in conjunction with coastal shore bases for operations support. Some SEALORDS operations, such as GIANT SLINGSHOT, needed support bases in remote areas, away from the main supply bases and in rivers too shallow for the larger U.S. Navy support ships to transit.

Additionally, there was the problem of moving the supplies to the areas of operations. The rivers were the main routes of travel for everyone in the delta region, civilians, enemy, and allied military personnel. Often, the operating areas of the boats

were too far up the rivers, in enemy held territory, to be able to sustain the long duration operations necessary for successful interdiction. There were little to no roads in the region. This posed a unique and challenging support logistics problem for the allied forces.

Advanced Tactical Support Bases (ATSB's) were developed by the U.S. Navy to meet the challenge. These floating bases were made up of 9-11 30' x 90' pontoon barges coupled together and possessed facilities necessary to support 10 boats, 65 men and helicopter landing pad. Supplies were brought via helicopter, boat or trucks where possible. ATSB's were usually situated near ARVN or Special Forces bases to provide for security and force protection (See Illustration 17). These ATSB's also provided a level of security and confidence to the civilian population in the area. Not only were they necessary to sustain combat operations in the area, they also aided in the pacification effort identified as one of the initial SEALORDS objectives.

Establishment of forward operating bases assisted with another objective of SEALORDS, pacification, or winning the hearts and minds of the local civilian people by providing them humanitarian assistance and providing protection of local villages.

Operating bases were established near areas where the VC had controlled the population and in many cases forced the abandonment of villages. One pacification effort was the establishment of Operation SEAFLOAT. SEAFLOAT, later renamed SOLID ANCHOR, was an ATSB established in an area known as Nam Can (See Illustrations 17-18).

⁶⁶ Marolda, p285.

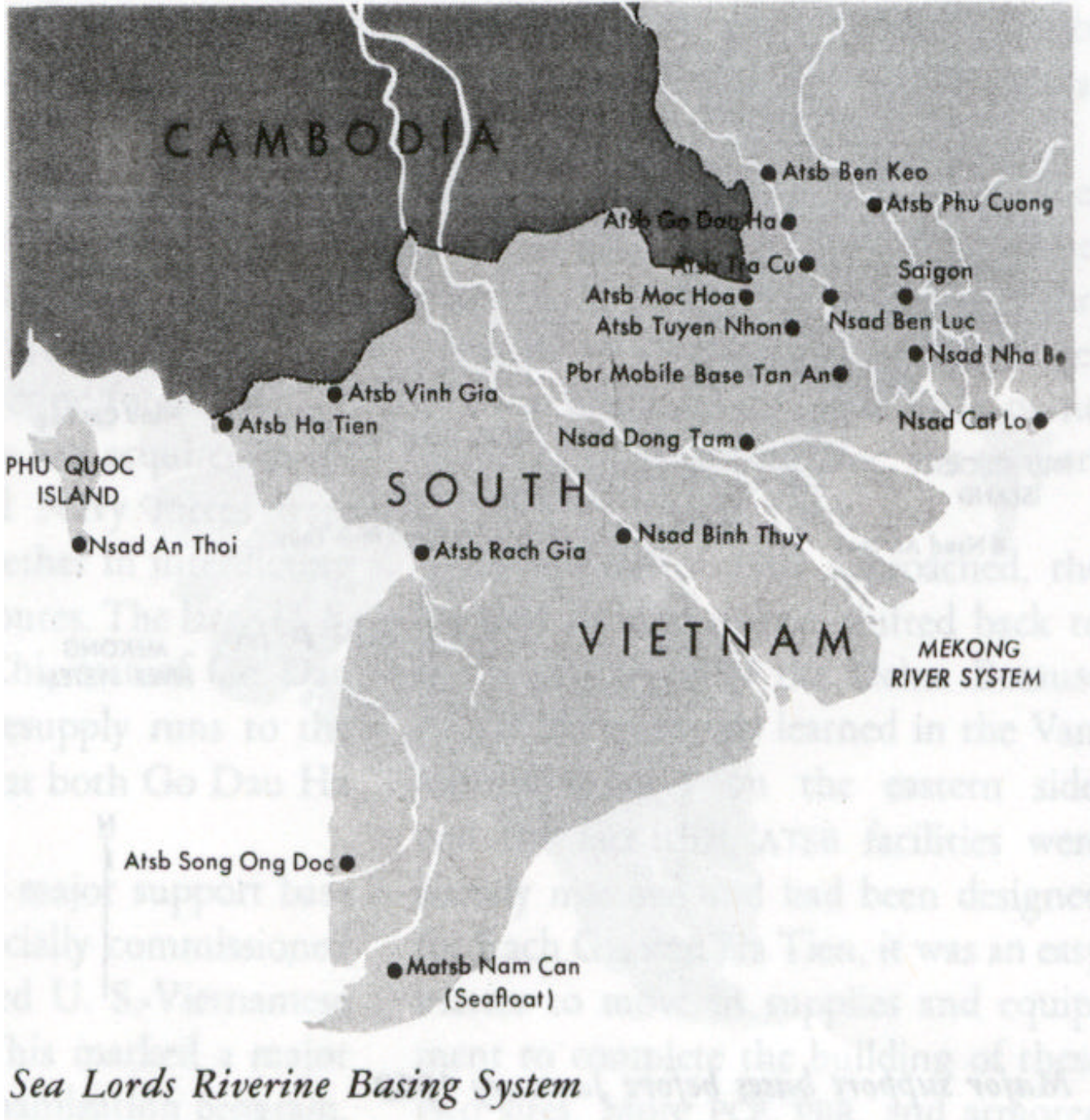


Illustration 17

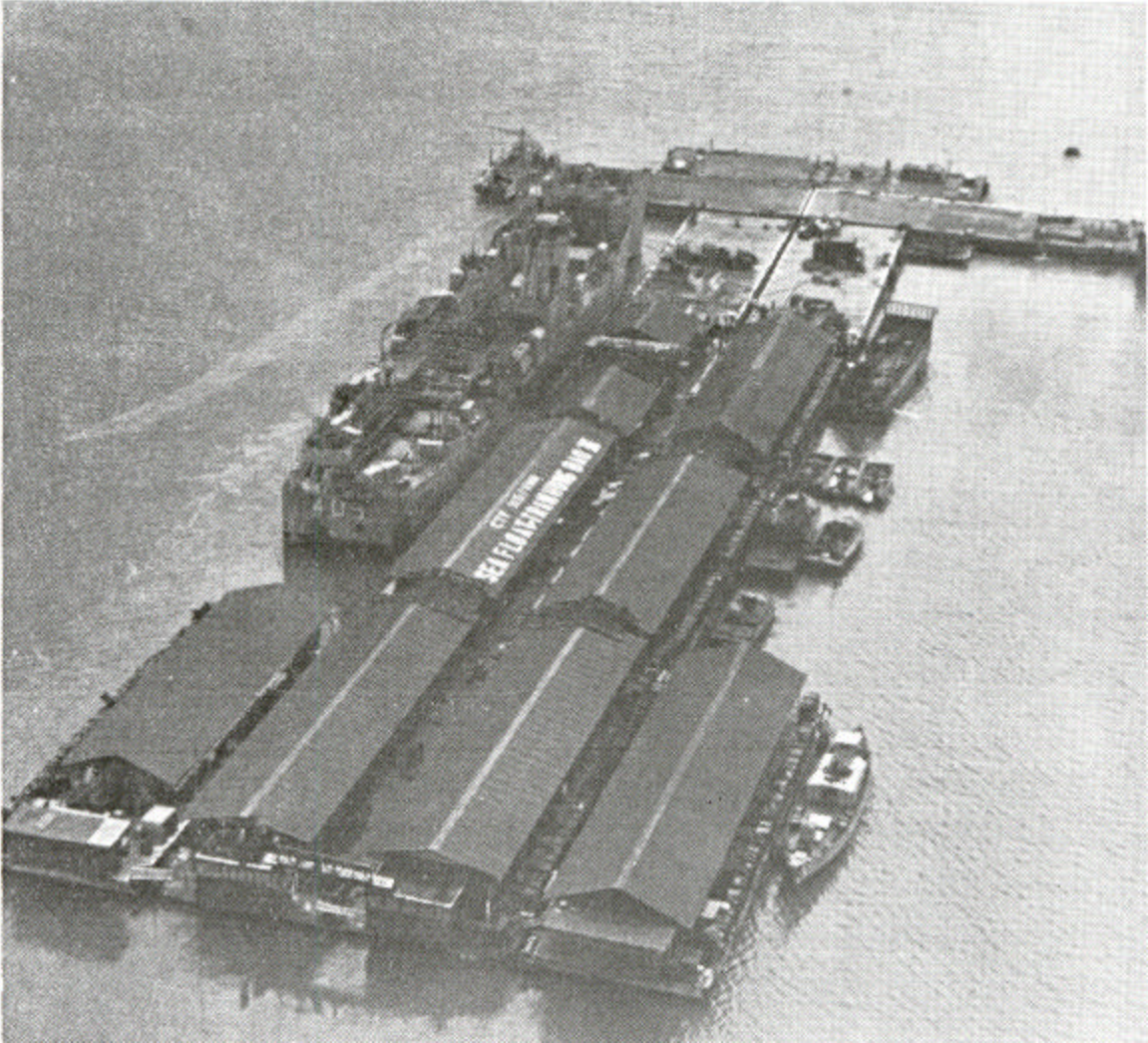


Illustration 18

Nam Can, at the beginning of the war, was the ending point of enemy supplies arriving by sea until patrols during Operation MARKET TIME and B-52 strikes made it too costly for the enemy to use.⁶⁷ However, the VC still maintained a tight grip on the Nam Can area. U.S. Navy PBR's, SEAL's and UH-1B "Seawolves" attack helicopters operated from SEAFLOAT with great success disrupting the VC activities in the Ca Mau Peninsula until April 1971. Zumwalt recalled that the Army thought the idea of SEAFLOAT to be "foolishly risky" due to the enemy dominance in the area.⁶⁸

The success of SEAFLOAT was measured by the gradual increase in the amount of civilian river traffic, the growing population of the Nam Can area around the base, as well as the number of enemy firefights in the area. Zumwalt was exceptionally proud of the fact that SEAFLOAT had succeeded when the other services said that it would fail. He often visited SEAFLOAT and brought high ranking Army and Air Force officers who had expressed skepticism about the feasibility of the effort.⁶⁹ SEAFLOAT's success led to a similar combined U.S./VNN operation near Son Ong Doc, near the U Minh Forest, on the Ca Mau peninsula named BREEZY COVE (See Illustration 19). SEAFLOAT and BREEZY COVE were the last two operations in Vietnam under U.S. Navy command.⁷⁰

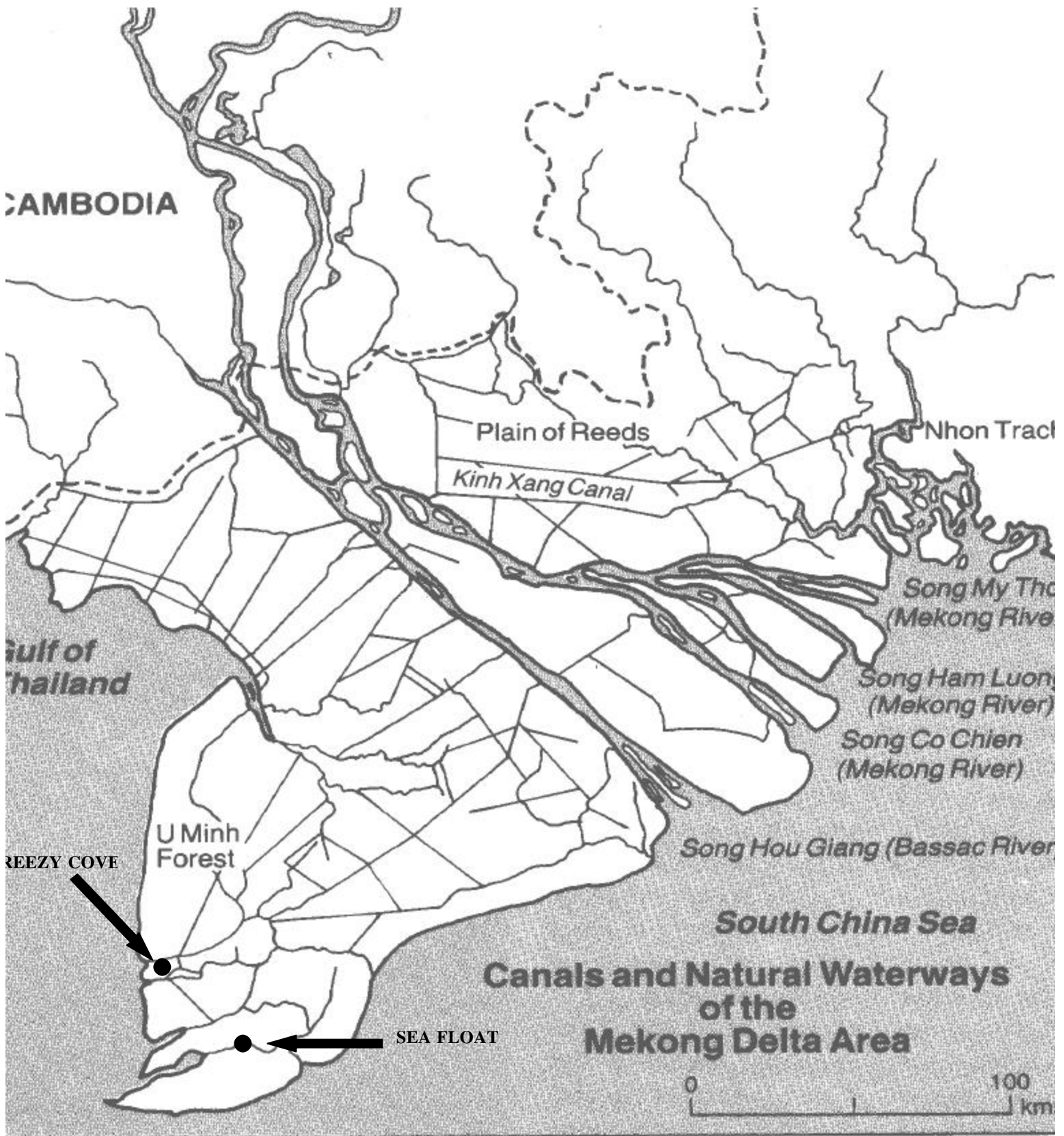
Another stated goal of Operation SEALORDS was the turnover of operations and equipment to the Vietnamese. The accelerated turnover to the Vietnamese (ACTOV), or "Vietnamization", was a political decision made by the U.S. government "essential to

⁶⁷ CDR R.L. Schreadley, USN (Ret), *From The Rivers To The Sea, The United States Navy In Vietnam*, (Annapolis, MD: Naval Institute Press, 1992), 217. Zumwalt, p 39.

⁶⁸ Zumwalt, p39

⁶⁹ Zumwalt, p40.

⁷⁰ Edward J. Marolda, *By Sea, Air and Land: An Illustrated History of The U.S. Navy And The War In Southeast Asia*, (Washington, DC: Naval Historical Center, 1994), 290.



Operations SEA FLOAT / BREEZY COVE

Illustration 19

continued home support of the war”.⁷¹ The clear goal of the Johnson, and especially the Nixon administration, was to get the U.S. out of the war and turn everything over to the South Vietnamese. All services became engulfed in developing plans to implement this policy. Admiral Zumwalt developed and implemented the plan for the Navy forces operating in Vietnam.

Vietnamization was a very complex undertaking. Not only was the equipment to be turned over to the VNN, but also proper training in tactics, maintenance and logistical support needed to be conducted. The Naval Advisory Group personnel beginning in early 1969 headed the Vietnamization program. VNN officers and enlisted men were integrated into the American crews, and when sufficiently trained, took over the operations. As entire units became trained, they took over the various SEALORDS campaign operations.⁷²

The VNN almost doubled in strength from 1968 to 1970, from 18,000 to 32,000 men. In March 1970, Operation FOUL DECK became Tran Hung Dao I. In May 1970, Operation GIANT SLINGSHOT became Tan Hung Dao II.⁷³ In the summer of 1970, Operation BARRIER REEF became Tran Hung Dao IX.⁷⁴ Although not as aggressive in the execution of riverine operations, the VNN remained moderately effective in controlling the delta region up until the fall of Saigon in 1975 (See Table 3).

⁷¹ CDR R.L. Schreadley, USN (Ret), *From The Rivers To The Sea, The United States Navy In Vietnam*, (Annapolis, MD: Naval Institute Press, 1992), 165

⁷² Edward J. Marolda, *By Sea, Air and Land: An Illustrated History of The U.S. Navy And The War In Southeast Asia*, (Washington, DC: Naval Historical Center, 1994), 285.

⁷³ Marolda, 287.

⁷⁴ LCDR Thomas J Cutler, USN, *Brown Water Black Berets*, (Annapolis, MD: Naval Institute Press, 1988), 306.

USN VNN OPERATIONS

(C) As 1971 began operations in being were as follows:

<u>VNN DESIGNATION</u>	<u>USN DESIGNATION</u>
TRAN HUNG DAO I (TG 212.4)	NONE
TRAN HUNG DAO II (TG 214.1)	GIANT SLINGSHOT
TRAN HUNG DAO IV	SOLID ANCHOR (TG 116.1)
TRAN HUNG DAO V (TG 216.1)	READY DECK
TRAN HUNG DAO VI (TG 212.5)	SEARCH TURN
TRAN HUNG DAO VII (TG 221.1)	SEA TIGER
TRAN HUNG DAO VIII (TG 217.1)	NONE
TRAN HUNG DAO IX (TG 212.3)	BARRIER REEF
TRAN HUNG DAO X (TG 212.6)	BREEZY COVE
TRAN HUNG DAO XIV (TG 217.2)	NONE
TRAN HUNG DAO XV (TF 213)	MARKET TIME Inner Barrier
TRAN HUNG DAO XVII (TF 210)	NONE
TRAN HUNG DAO XVIII (TF 218)	NONE
RUNG SAT SPECIAL ZONE	NONE

Table 3

Chapter 4: CONCLUSION.

Operation SEALORDS accomplished all the initial objectives and was considered an overall success. The SEALORDS strategy remained somewhat effective until the fall of Saigon in 1975. As stated earlier, the campaign was far more successful with U.S. participation than it was after the VNN took over. In assessing the overall effectiveness of the SEALORDS campaign, a few basic questions need to be answered.

First, did SEALORDS barrier operations effectively disrupt or destroy the enemy's ability to infiltrate men and supplies into the Mekong Delta region? Operation SEALORDS had a measured long-term effect on the enemy. The enemy could no longer infiltrate large shipments of supplies across the border necessary to sustain offensive operations such as the Tet offensive of 1968. The effectiveness of the SEALORDS campaign had a significant impact on enemy operations, causing the VC to stockpile supplies in caches and forcing the backup of supplies north of the border. This lack of logistical support to the troops operating in the south undoubtedly had a significant effect and caused the north to have to mount the Easter Offensive of 1972 attack from across the DMZ, vice from the south as in Tet 1968.

The SEALORDS patrols had effectively forced the enemy to wait for the opportune time to move supplies, moving them in much smaller shipments, and at a much greater risk. For example, in 1969 intelligence discovered through a captured prisoner that the 195th NVA regiment crossed the TRAN HUNG DAO barrier with an estimated 1,025 personnel by moving three to five personnel at a time across the patrolled

waterways.⁷⁵ The necessity to conduct the infiltration in such a manner eventually led to the backup of essential war supplies north of the Cambodian border, supplies that were desperately needed for the enemy forces operating in the Delta region.⁷⁶ Statistics for each operation during the duration of U.S. involvement produced at least a 14:1 kill ratio (See tables 4-10).

Second, why were the operations more successful with U.S. involvement than when the VNN totally took over? The VNN was not as aggressive or as effective a fighting force without the assistance of U.S. forces; however, the VNN continued to deny the enemy the ability to infiltrate supplies across the border in large quantities. Intelligence indicated that in 1970, the enemy attempted and successfully infiltrated at least five new regiments through the SEALORDS barriers, however, the units were not totally effective due to the lack of supplies infiltrated.⁷⁷

One of the conclusions of the COMNAVFORV analysis was that the enemy was very cognizant of the effectiveness of the air assets in support of naval or riverine barrier operations. The analysis concluded that dedicated allied air was essential to the success of naval and ground forces to conduct counter-insurgency operations.⁷⁸ This dedicated air provided allied naval and ground forces with the ability to quickly suppress numerically superior enemy forces. Once the VNN took over all SEALORDS operations in the spring of 1970, the lack of Vietnamese air support for SEALORDS operations was exploited by the enemy, making the VNN forces far less capable of being as successful as the U.S.

⁷⁵ Analysis Paper III-6

⁷⁶ CDR R.L. Schreadley, USN, "The Naval War In Vietnam 1950-1970", *Proceedings* Vol 97, no. 819, May 1971, 199.

⁷⁷ Analysis Paper III-7

⁷⁸ Analysis Paper, V-4

forces were.⁷⁹ The one fault of the SEALORDS concept was the rushing of the Vietnamization of the operation. More time should have been allocated by the Navy for the transfer the corporate knowledge and the training in tactics, techniques, and procedures acquired during the U.S. involvement.

The GVN did not provide the necessary financial and military support the VNN needed to maintain the success level enjoyed by the U.S. forces during SEALORDS. This lack of support led to many of the riverine craft to be neglected and become inoperative. Boats were towed out onto patrols; weapons and communications systems became inoperative, affecting mission success. The speed at which Vietnamization occurred drastically reduced the potential for success by the VNN.

SEALORDS forces were successful by knowing their enemy, their own capabilities and limitations as well as those of their allies. Many of the tactics used during SEALORDS, such as the WBGPs and river ambush tactics, were learned from the VC during GAME WARDEN and early SEALORDS operations. SEALORDS had taken away the ability of the enemy to freely operate and infiltrate men and supplies into South Vietnam, destroying their ability to mount large-scale offensives. By hitting the enemy at his critical vulnerability, the waterways in the Mekong Delta region, the SEALORDS campaign hampered the enemy's center of gravity in the region, the forces operating in the south.

The effectiveness of the Brown Water Navy was recognized throughout the military leadership. Captain Robert Salzer reflected on a comment made by General

⁷⁹ Analysis Paper V-4

Operation SEARCH TURN

Statistics from: 1 November 1968
Friendly initiated fire fights: 159
Enemy initiated fire fights: 86
Unilateral firings: 293
Minings: 4
Ammunition caches: 14
Ammunition cache weight (total, in tons): 11
Other caches: 1
Other cache weight (total, in tons): 1
Sampans destroyed: 308
Enemy killed in action
 By USN: 225
 By VNN: 0
 By other: 43
 Total: 268
Enemy captured in action
 By USN: 8
 By VNN: 0
 By other: 30
 Total: 38
Friendly killed in action
 USN: 16
 VNN: 0
 Other: 19
 Total: 35
Friendly wounded in action
 USN: 69
 VNN: 6
 Other: 93
 Total: 168
Kill ratio
 USN: 14 to 1
 VNN: -
 Other: 2.3 to 1
 Composite: 7.7 to 1

Table 4

Operation GIANT SLINGSHOT

Statistics from: 6 December 1968
Friendly initiated fire fights: 489
Enemy initiated fire fights: 705
Unilateral firings: 1,357
Minings: 14
Ammunition caches: 271
Ammunition cache weight (total, in tons): 142.9
Other caches: 24
Other cache weight (total, in tons) 384.9
Sampans destroyed: 326
Enemy killed in action
 By USN: 1,074
 By VNN: 157
 By other: 1,053
 Total: 2,284
Enemy captured in action
 By USN: 24
 By VNN: 9
 By other: 207
 Total: 240
Friendly killed in action
 USN: 36
 VNN: 17
 Other: 128
 Total: 181
Friendly wounded in action
 USN: 499
 VNN: 153
 Other: 660
 Total: 1,312
Kill ratio
 USN: 29.9 to 1
 VNN: 9.3 to 1
 Other: 8.3 to 1
 Composite: 12.6 to 1

Table 5

Operations in Rung Sat

Statistics from: 1 January 1969
Friendly initiated fire fights: 103
Enemy initiated fire fights: 154
Unilateral firings: 947
Minings: 10
Ammunition caches: 12
Ammunition cache weight (total, in tons): 2.6
Other caches: 8
Other cache weight (total, in tons): 5.7
Sampans destroyed: 425
Enemy killed in action
 By USN: 233
 By VNN: 6
 By other: 397
 Total: 636
Enemy captured in action
 By USN: 24
 By VNN: 0
 By other: 78
 Total: 102
Friendly killed in action
 USN: 6
 VNN: 2
 Other: 29
 Total: 37
Friendly wounded in action
 USN: 71
 VNN: 14
 Other: 140
 Total: 225
Kill ratio
 USN: 38.8 to 1
 VNN: 3 to 1
 Other: 13.7 to 1
 Composite: 17.2 to 1

Table 6

Operation BARRIER REEF

Statistics from: 2 January 1969

Friendly initiated fire fights: 65

Enemy initiated fire fights: 53

Unilateral firings: 209

Minings: 6

Ammunition caches: 1

Ammunition cache weight (total, in tons): less than 1

Other caches: 0

Other cache weight (total, in tons): 0

Sampans destroyed: 160

Enemy killed in action

By USN: 85

By VNN: 31

By other: 109

Total: 225

Enemy captured in action

By USN: 18

By VNN: 1

By other: 34

Total: 53

Friendly killed in action

USN: 6

VNN: 0

Other: 17

Total: 23

Friendly wounded in action

USN: 49

VNN: 11

Other: 84

Total: 144

Kill ratio

USN: 14.2 to 1

VNN: 31 to 0

Other: 6.4 to 1

Composite: 9.8 to 1

Table 7

Operation READY DECK

Statistics from: 1 June 1969
Friendly initiated fire fights: 49
Enemy initiated fire fights: 59
Unilateral firings: 211
Minings: 1
Ammunition caches: 19
Ammunition cache weight (total, in tons): 4
Other caches: 2
Other cache weight (total, in tons): less than 1
Sampans destroyed: 144
Enemy killed in action
 By USN: 338
 By VNN: 85
 By other: 246
 Total: 669
Enemy captured in action
 By USN: 14
 By VNN: 0
 By other: 122
 Total: 136
Friendly killed in action
 USN: 6
 VNN: 0
 Other: 20
 Total: 26
Friendly wounded in action
 USN: 30
 VNN: 17
 Other: 84
 Total: 131
Kill ratio
 USN: 56.5 to 1
 VNN: 85 to 0
 Other: 12.3 to 1
 Composite: 25.8 to 1

Table 8

Operation BREEZY COVE

Statistics from: 28 September 1969
Friendly initiated fire fights: 70
Enemy initiated fire fights: 49
Unilateral firings: 153
Minings: 7
Ammunition caches: 0
Ammunition cache weight (total, in tons): 0
Other caches: 1
Other cache weight (total, in tons): 1.1
Sampans destroyed: 252
Enemy killed in action
 By USN: 124
 By VNN: 5
 By other: 59
 Total: 188
Enemy captured in action
 By USN: 44
 By VNN: 8
 By other: 24
 Total: 76
Friendly killed in action
 USN: 1
 VNN: 0
 Other: 2
 Total: 3
Friendly wounded in action
 USN: 81
 VNN: 10
 Other: 8
 Total: 99
Kill ratio
 USN: 124 to 1
 VNN: 5 to 0
 Other: 61.6 to 1

Table 9

Operation TRAN HUNG DAO

Statistics from: 21 November 1968

Friendly initiated fire fights: 238

Enemy initiated fire fights: 193

Unilateral firings: 411

Minings: 23

Ammunition caches: 7

Ammunition cache weight (total, in tons): 11.5

Other caches: 1

Other cache weight (total, in tons): less than 1

Sampans destroyed: 252

Enemy killed in action

By USN: 271

By VNN: 63

By other: 295

Total: 629

Enemy captured in action

By USN: 12

By VNN: 2

By other: 20

Total: 34

Friendly killed in action

USN: 12

VNN: 9

Other: 30

Total: 51

Friendly wounded in action

USN: 123

VNN: 79

Other: 142

Total: 344

Kill ratio

USN: 22.6 to 1

VNN: 7 to 1

Other: 9.85 to 1

Composite: 15.2 to 1

Table 10

Westmoreland regarding the effectiveness of the Naval effort in the delta region:

“...Westmoreland was a very expansive man in his statements and did say to me... that there was one thing he was confident of and that was the Mobile Riverine Force that saved the delta... The loss of the delta would have meant the loss of South Vietnam because that was where all the food supply was and the largest per cent of the population.”⁸⁰

Although it took almost two years after the release of the Bucklew Report, the U.S. Navy effectively adapted from blue water to brown water operations in order to meet the insurgency problem in the Mekong Delta region. This occurred for a couple of key reasons. First, the U.S. did not possess the boats or trained personnel needed to conduct the barrier operations at the beginning of 1965. The PCF's, PBR's, and Monitors were all modified from commercial civilian uses to meet the demanding operating requirements of the shallow waters of the Mekong Delta region.

Second, inter-service rivalry delayed the development of the riverine capability that was eventually required to control the Mekong Delta region. The U.S. Army failed to see the U.S. Navy capable of conducting any operations other than blue water operations. It is obvious now that the U.S. Army leadership did not take into consideration, or act upon, the Bucklew Report conclusions. The U.S. Army used the Vung Ro incident to justify the effectiveness of their border operations and that the infiltration problem was coming from the sea, not on the rivers and tributaries near the Cambodian border. Unfortunately it took the damage inflicted by the enemy during the Tet 1968 offensive for the U.S. Army to realize they needed the U.S. Navy's assistance in controlling the Mekong Delta region.

⁸⁰ Reminiscences of Vice Admiral Robert S. Salzer”, 411 of transcript 10, U.S. Naval Institute Oral History Collection.

Following Vietnamization and the redeployment of U.S. personnel from Vietnam, the U.S. did what it always have in a post war period, downsize. Consequently a career in the riverine navy was thought to be detrimental to a professional naval career. Blue water operations were thought of as the main focus of the Navy, not riverine operations. With this attitude, the Navy, as well as the military as a whole, lost the resident expertise in riverine operations.

This down sizing and turnover to the VNN of all in country equipment and associated supplies, resulted in the serious depletion of the riverine forces maintained in the U.S. military, a problem that continues today. The modern day U.S. military is no better trained, equipped or funded than the military was in 1964 prior to the Bucklew Report. The vast majority of the riverine operations expertise retained in the military today resides within certain units of the United States Special Operations Command (USSOCOM).

There remains only one riverine focused Special Boat Unit in the Navy, under the operational control of USSOCOM, which is capable of small unit special operations such as supporting U.S Navy SEALs and U.S. Army Special Forces. Additionally, the USSOCOM forces conduct Foreign Internal Defense (FID) and Counter-Drug (CD) training missions, training Central and South American militaries and police forces.

The closest conventional unit capable of conducting a semblance of a Vietnam MRF operation is the USMC. The capability within the USMC is also very limited and would be very hard pressed to conduct any conventional riverine operation above a USMC platoon size insertion and extraction. The USMC expertise is mainly focused

more on FID and CD missions with Central and South American military and police forces than on supporting conventional U.S. military riverine operations.

Is this a problem and should the military leadership be concerned? The answer lies in U.S. national priorities. The U.S. military always fights its last war. There has been no immediate or long-term requirement to build a riverine capability above the special operations level. With the current geo-political environment, the focus will remain on building a lighter, more rapidly responsive, flexible, and lethal conventional military capable of reacting throughout the full spectrum of conflict from Humanitarian Assistance (HA) to Military Operations Other Than War (MOOTW). This force must still retain the capability to engage in and win a Major Theater War (MTW). Unless somewhere along the spectrum a more capable riverine capability is needed, it will remain a low priority.

This is not to say that the USSOCOM and USMC forces do not need more equipment, funding, and personnel; however, there is no current or perceived threat requiring a larger conventional riverine capability. Conducting the types of riverine operations such as the SEALORDS barriers are manpower and asset intensive. They require extensive integrated training with naval, ground and air assets in order to be a viable capability. Unless the situation in Central and/or South America explodes, threatening U.S. vital interests and requiring the U.S. to commit a large concentration of troops, the conventional riverine capability will remain at the current status.

The bottom line is that if the U.S. ever needed to develop a larger riverine capability, it has the ability to fairly rapidly. The U.S., throughout history, has overcome similar challenges out of necessity, such as amphibious operations. Mao Tse-tung wrote

in *On Guerilla Warfare*, that counter revolutionary guerrilla war is not possible.⁸¹ The brave men who operated in and with the Brown Water Navy during operation SEALORDS changed that for the VC and NVA and would have made Mao rethink his claim that there is no counter to revolutionary guerilla warfare.

⁸¹ Mao Tse-Tung, *On Guerilla Warfare*, FMFRP 12-18, (Washington, DC: Department of The Navy, 1989), 33.

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