

Maritime SOF: Patrol Coastal Ships, A Vital Asset to the Theater CINC  
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## EXECUTIVE SUMMARY

**Title:** Maritime SOF: Patrol Coastal Ships, A Vital Asset to the Theater CINC

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**Thesis:** With the possibility of a reduction in the numbers of the Cyclone Class Patrol Coastal (PC) ship an argument must be made in support of the continued use of these important Special Operations assets. The PC is a valuable asset that the Theater Commander-in-Chief (CINC) uses in his plan for engagement in his Area of Responsibility. These ships provide a capability needed for the conduct and support of Special Operations missions in the littoral waters of the world.

**Background:** The lessons learned as a result of the escorting of tankers during Operation *Earnest Will* and difficulties with patrolling and interdicting the coasts of Iraq during the Gulf War brought about the *Cyclone* Class Patrol Coastal. Since 1993, the PC has proven an important asset in the engagement strategy of Theater CINC's. As a Special Forces asset, they are capable of conducting or directly supporting Special Operations missions:

- Unconventional Warfare (UW)
- Direct Action (DA)
- Special Reconnaissance (SR)
- Foreign Internal Defense (FID)
- Counter-terrorism (CT)

In addition to these operations, their inherent capabilities make them suitable for employment in additional missions:

- Counter-drug (CD)
- Security Assistance (SA)
- Humanitarian Assistance (HA)
- Personnel Recovery (PR)
- Support to Coalitions

The ability to conduct these missions makes the PC a viable and flexible asset for the CINC to use in creating and maintaining a common bond with countries within his region. There are currently not enough PCs to accommodate all of the CINC's requests. The present United States Special Operations Command (USSOCOM) plan calls for a force reduction to six PCs by the year 2005. Unless this trend is halted, the CINC's will lose a very important tool for conducting littoral operations.

**Recommendations:** Allocate the funding needed to maintain the current PC force level in the fleet. Continue to look at options that will ensure all CINC's receive the PC availability they need to accomplish their missions. Look to the future for a replacement vessel once the service life of the PC has terminated.

## Report Documentation Page

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## LIST OF ABBREVIATIONS

ACNO	Assistant Chief of Naval Operations
AOR	Area of Responsibility
ARG	Amphibious Ready Group
ASDS	Advanced SEAL Delivery Vehicle System
AT	Anti-Terrorism
CENTCOM	U.S. Central Command
CCRS	Combatant Craft Retrieval System
CD	Counter-Drug
CINC	Commander-in-Chief
CJCS	Chairman, Joint Chiefs of Staff
CNO	Chief of Naval Operations
COMINT	Communications Intelligence
CP&I	Coastal Patrol and Interdiction
CPO	Chief Petty Officer
CRRC	Combat Rubber Raiding Craft
CT	Counter-Terrorism
CVBG	Aircraft Carrier Battle Group
DA	Direct Action
EUCOM	U.S. European Command
FID	Foreign Internal Defense
FSI	Fleet Support Initiative

HA	Humanitarian Assistance
HIFR	Helicopter in-flight Refueling
HN	Host Nation
JCET	Joint Combined Exercise for Training
JCS	Joint Chiefs of Staff
LCAC	Landing Craft Air Cushioned
LIC	Low Intensity Conflict
NATO	North Atlantic Treaty Organization
NEO	Non-Combatant Evacuation
NDI	Non-Developmental Item
NMS	National Military Strategy
NSW	Naval Special Warfare
NSWC	Naval Special Warfare Command
PB	Patrol Boats
PBC	Patrol Boat, Coastal
PC	Patrol Coastal
PCC	Patrol Craft, Coastal
PFP	Partnership for Peace
PHM	Patrol, Hydrofoil, Missile
PR	Personnel Recovery
RHIB	Rigid Hulled Inflatable Boat
SA	Security Assistance
SBR	Special Boat Squadron

SBU	Special Boat Unit
SDV	SEAL Delivery Vehicle
SEAL	Sea, Air, and Land
SIGINT	Signals Intelligence
SLOC	Sea Lines of Communication
SO	Special Operations
SOC	Special Operations Capable
SOF	Special Operations Forces
SOP	Standard Operating Procedures
SOUTHCOM	U.S. Southern Command
SR	Special Reconnaissance
SWCC	Special Warfare Craft, Coastal
USCG	United States Coast Guard
USSOCOM	United States Special Operations Command
UW	Unconventional Warfare

## INTRODUCTION

With today's focus on the littoral, the *Cyclone* Class Patrol Coastal (PC) has proven to be an asset to theater Commander in Chiefs (CINC) for engagement strategies, maritime Special Operations (SO), and Counter-Drug (CD) operations.

When *USS CYCLONE* was commissioned and began operations, the Naval Special Warfare (NSW) community questioned the need for a commissioned warship of this size.<sup>1</sup> However, the first break came during Operations *Restore Democracy* and *Maintain Democracy* in Haiti. Before the introduction of the PC, the Navy was unable to stop small boats from breaking through the naval blockade surrounding Haiti. These boats would simply run toward shallow water where the deeper drafted combatants could not go. With the arrival of the *USS Cyclone* (PC 1) and *USS Tempest* (PC 2) (later relieved on station by *USS Hurricane* [PC 3] and *USS Monsoon* [PC 4]), these ships were able to block the flow of boats into and out of Haiti.<sup>2</sup>

Today, PC has operated in every theater throughout the world and become a highly sought after asset by theater CINC's.<sup>3</sup> The CINC's value the PC due to

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<sup>1</sup> Special Boat Squadron Two, Command History For 1991, April 1992. Navy Operational Archives, Washington, DC.

<sup>2</sup> United States Special Operations Command, 10<sup>th</sup> Anniversary History, 1997, 48-52. Navy Operational Archives, Naval Historical Center. Washington Navy Yard, Washington, DC. Hereafter NHC (AR). While the history does not point out the number of vessels detained due to the use of PC's, it does state that "these operations sent a message to the Haitians to abide by the sanctions."

<sup>3</sup> Opinion gained from author's experience as Commanding Officer, *USS Cyclone*. While in command the author gained this perspective from two years conducting operations in the European, Southern and Atlantic Commands. In addition, the author held numerous

its ability to enhance theater SO capabilities, operate with developing countries with predominantly brown water navies, and conduct presence operations in areas too small for larger ships to visit. These unique capabilities of the PC assist the theater CINC's in accomplishing their two major tasks. These tasks are to "defend U.S. interests within its assigned area of responsibility, and assist the development of modern militaries within friendly nations throughout its area of responsibility."<sup>4</sup> Given these strengths, why has there been so much controversy surrounding the continued existence of these vessels? If the theater CINC's feel these ships are a needed asset, then why are seven PC's currently scheduled for decommissioning between the years 2000-2005?<sup>5</sup> The PC provides a unique capability that should not be lost or even degraded. There is currently a prioritized "waiting list" for PC deployments and no end in sight to an interest in having them in-theater.<sup>6</sup>

In the beginning the controversy was between United States Special Operations Command (USSOCOM) and the Navy over whom would be responsible for the operation, training and certification processes of the PC. This process was resolved after some growing pains and experience operating the PC and has resulted in a fairly good working relationship. Today's controversy

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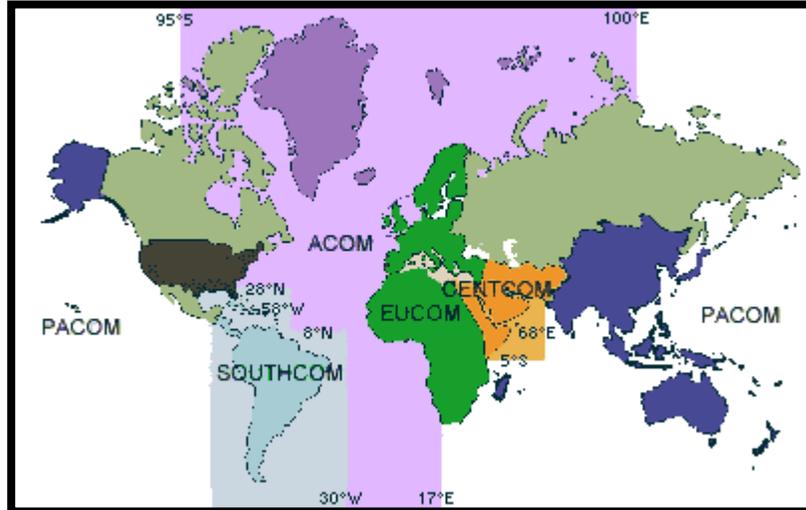
professional discussions with other PC Commanding Officers and CINC staff officers who had experience in operating in the Pacific and Central Commands.

<sup>4</sup> USSOUTHCOM homepage, [www.ussouthcom.mil](http://www.ussouthcom.mil), under "Our Mission," downloaded from America Online, 1 April 1999.

<sup>5</sup> CDR R. Elder, USN, Operations Officer, Special Boat Squadron Two, interviewed by author, 19 March 1999. The current POM for the year 2000 calls for decommissioning seven PCs. There are some active proposals aimed at maintaining all 13 PCs in the fleet.

centers around how many PC's will remain active in the fleet and how USSOCOM will meet the theater CINC's demand for the PC. U.S. Southern Command (SOUTHCOM) has requested a continuous presence of 4 to 6 PC's, while U.S. European Command (EUCOM) and U.S. Central Command (CENTCOM) continue to request for regular PC deployments (figure 1 depicts the area controlled by the CINC's).<sup>7</sup> The requirement for the PC is still viable. The argument is will USSOCOM be able to meet the demand for PC assets considering their uncertain future.

## COMMANDER IN CHIEF'S AOR'S



(Figure 1)

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<sup>6</sup> Ibid. The latest USSOCOM PC Conference in February 1999 revalidated the need for PC presence by the theater <sup>CINCs</sup>.

<sup>7</sup> Ibid.

If PC's are in such a high demand, how can USSOCOM and the Joint Chiefs of Staff (JCS) justify the decommissioning and reduction of these important assets? It appears to boil down to dollars, but this discussion is not about budgetary issues. This is a discussion of the need for a maritime SO asset capable of conducting and providing support for SO forces and missions. In addition, this is a discussion of how that support is used by theater CINCs to further their mission of defending U.S. national interests and assisting friendly nations in support of the Chairman of the Joint Chiefs of Staff's (CJCS) National Military Strategy (NMS).

The Chairman's NMS consists of promoting peace and stability, shaping the international environment and preparing for the future.<sup>8</sup> From the Chairman's NMS the CINC's formulate their plans based on the tasks of defending U.S. interests and assisting the development of modern militaries within friendly nations. As part of their planning, the CINC's define their missions and establish objectives they feel will accomplish the objectives of the Chairman's NMS. The PC as an asset for the CINC is a tool used to accomplish the missions and formulated objectives of the CINCs.

While there are fleet assets with some of the capabilities of the PC, there are no other assets that can provide a complete, dedicated package focused on supporting SO missions in support of the CINC's regional objectives. Due to their larger relative size and inability to operate in shallow waters, destroyers and

cruisers offer a limited capability to effectively employ SO forces. Moreover, a CINC or Battle Group Commander would probably be loath to take either of these platforms away from their primary mission (defense of the battle group and strike missions) when an asset specifically designed and trained to conduct these missions is available. When necessary, conventional assets are a viable alternative, but when a better option is available, namely the PC, then that option should be used. The end of the Cold War has brought about many changes in the focus within the maritime environment. With this change in focus has come a change in the assets needed.

“Navy strategy in the post-Cold War period has, by default, opened the operational door wider for Naval Special Boat Squadrons (SBR), whose dual missions of Coastal Patrol and Special Warfare will be central to the Navy’s future employment.”<sup>9</sup> The end of the Cold War and the threat to our Sea Lines of Communications (SLOC) resulted in the U.S. Navy diverting its focus from the open ocean to concentrating on influencing events in the littorals. This refocusing of efforts caused the Navy to develop concepts on how to influence events in the brown water arena. The Navy’s vision is documented in the White Papers *...From the Sea*<sup>10</sup> and *Forward...From the Sea*,<sup>11</sup> while the Marine Corps

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<sup>8</sup> Joint Chiefs of Staff (JCS) Pamphlet, National Military Strategy of the United States of America: Shape, Respond, Prepare Now: A Military Strategy For A New Era (Washington, DC: JCS, 1997) 2.

<sup>9</sup> RADM George R. Worthington, USN (Ret.), “Combatant Craft Have A Role in Littoral Warfare,” Proceedings, August 1994, 24. This article gives an early perspective at the time the PC was coming into service.

<sup>10</sup> Department of the Navy, “...From the Sea,” Washington, DC, 1992.

<sup>11</sup> Department of the Navy, “Forward...From the Sea,” Washington, DC, 1994.

produced the Concept Paper *Operational Maneuver from the Sea*.<sup>12</sup> All of these papers focused on how to influence events in the littorals. With a refocusing of efforts at the strategic, operational, and tactical levels, old assets must be adapted to new missions and new assets must be created to better serve these missions. The PC is a platform spawned from maritime SO missions conducted before the end of the Cold War (Operation *Earnest Will*) and brought into service following the Gulf War.

Traditionally, Special Operations Forces (SOF) are thought of as small tactical units that conduct clandestine missions such as the Navy's Sea, Air, and Land (SEAL) Teams, Army Special Forces Groups, and Air Force Special Tactics Teams. While these groups receive the majority of the headlines, numerous other components make up USSOCOM.

USSOCOM tasks all units with conducting or supporting the execution of SO missions.<sup>13</sup> In the Maritime realm of SOF the task of supporting these missions is assigned to the SEAL Teams, PC's, and Special Boat Units (SBU) of NSW. The PC has proven itself adaptable in either performing or providing

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<sup>12</sup> United States Marine Corps Development Command (MCCDC), *Warfighting Concepts for the 21st Century, Operational Maneuver from the Sea* (Quantico, VA: USMC MCCDC, 4 January 1996). Additionally, the Marine Corps online homepage ([www.usmc.mil](http://www.usmc.mil)) offers current reports on how the Marine Corps plan to implement this concept.

<sup>13</sup> Joint Publication (JP) 3-05, *Doctrine for Joint Special Operations* (Washington, DC: Joint Chiefs of Staff, 17 April 1998), II-2 to II-14. The five SO missions are Unconventional Warfare (UW), Direct Action (DA), Special Reconnaissance (SR), Foreign Internal Defense (FID), and Counter-terrorism (CT). Additional missions USSOCOM supports are Counter-drug (CD), Security Assistance (SA), Humanitarian Assistance (HA), Antiterrorism (AT), Personnel Recovery (PR), and Coalition Warfare Support.

support for these SOF missions through numerous real world operations (i.e. *Restore/Maintain Democracy*), active participation in joint exercises and deployments around the world.<sup>14</sup>

The commissioning of *USS Cyclone* (PC 1) in 1993 gave the SO Maritime Arm a boost in its ability to support SOF missions in the littorals using a dedicated asset built to support SO. When *USS Cyclone* was commissioned, however, the full implications of its capabilities were not yet fully grasped. NSW had never operated a vessel the size of the PC and once the PCs started entering the fleet NSW struggled to develop a good strategy for their employment.<sup>15</sup> In the years to come, PC crews had to develop standard operating procedures (SOP) from scratch for the missions of coastal patrol and interdiction (CP&I) and conducting special operations missions in support of SEAL Teams. It would take the next four years (1993-1997) for the PC's to become accepted by the NSW community as a viable platform for conduct of the SO mission in the littorals.<sup>16</sup> Meanwhile, as the PC was gaining operational experience, theater CINC's began to recognize their value to support their own missions and goals.<sup>17</sup>

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<sup>14</sup> United States Special Operations Command, 10<sup>th</sup> Anniversary History, 1997, and Special Boat Squadron Two, Command History: 1997, March 1998, NHC (AR). These histories provide examples of the activities the PC has been involved in.

<sup>15</sup> LCDR Brian D. Peterson, USN, *The Patrol Coastal Ship: Then, Now, and in the Future*, MMAS Thesis (Fort Leavenworth, KS: US Army Command and General Staff College, June 1998), 4.

<sup>16</sup> Authors personal opinion based on his experience as Commanding Officer, *USS Cyclone*, from 1996 to 1998.

<sup>17</sup> Special Boat Squadron Two, Command History: 1997, March 1998, NHC (AR). In the author's opinion this was the year the CINC's began to realize the usefulness of the PC.

Due to the growing unrest and difficulties encountered in the littoral regions of the world, these areas will continue to be the major emphasis for U.S. foreign policy. The unrest has led to an increase in Low Intensity Conflicts (LIC). The problems in the littorals have increased attention on improving the assets and capabilities needed to operate in the confined brown waters of the littoral regions. Places like Somalia, Sierra Leone, Kuwait, Liberia, Columbia and the Caribbean, have all been the focus of attention for the CINC's. One has only to look back to the Vietnam War see the importance of a ship capable of conducting the missions that the PC is doing today. What are the consequences of allowing this capability to decline or disappear? As President Kennedy once said, "the need for small fast armed vessels shall not wane."<sup>18</sup> This look at the past is a gauge of the importance of maintaining the capabilities the PC has to offer.

## **BROWN WATER OPERATIONS: PATROL BOATS IN THE U.S. NAVY**

The brown water capability of the Navy remained active until the end of the Vietnam War; however, the aftermath of Vietnam saw a steady decline in the Navy's brown water capability. The post Vietnam atmosphere did not prove conducive to improving upon the brown water capabilities learned and perfected

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<sup>18</sup> LCDR Thomas J. Cutler, USN, *Brown Water, Black Berets: Coastal and Riverine Warfare in Vietnam* (Annapolis, MD: Naval Institute Press, 1988), 82.

during Operations *Market Time* and *Game Warden*.<sup>19</sup> What these operations did was to effectively degrade the ability of the enemy to transport supplies along the coastal waters and river deltas of Vietnam. The Navy's future emphasis would focus on winning the battle on the open oceans. Through the next decade, with the exception of the Guided Missile, Hydrofoil Patrol Boat (PHM) program,<sup>20</sup> patrol craft improvements and attention to maintaining or improving brown water capabilities remained stagnate.<sup>21</sup>

The demise of the PHM program was a result of taking a platform with a specific mission and attempting to expand upon those roles and missions while neglecting time to develop the tactics needed to support its primary mission - choke point interdiction against Soviet surface forces.<sup>22</sup> To date the PC has escaped the fate of the PHM. If the PC is to remain an active platform then the justification for its existence must be centered on its viability as a SO platform, not its ability to conduct missions it was not designed for. This lack of understanding the nature of the PC's missions by the Navy was a problem in the beginning. Luckily, this problem was solved with time and the knowledge gained through operational experience. A look at the issues surrounding the eventual

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<sup>19</sup> Operation *Market Time* involved patrolling the Vietnamese coast to prevent infiltration by North Vietnamese forces. Operation *Game Warden* was aimed at patrolling the rivers. For good accounts of coastal and riverine operations in Vietnam see Thomas J. Cutler's, "Brown Water, Black Berets," and Don Sheppards, "Riverine: A Brown Water Sailor."

<sup>20</sup> For more information on the history of the PHM read Stephen R. Chapin's, "The History of the PHM," Naval Institute Proceedings September 1986, 80.

<sup>21</sup> Bernard Prezelin, ed., *Combat Fleets of the World 1993* (Annapolis, MD: Naval Institute Press, 1993), 840.

<sup>22</sup> For more information see Bruce R. Linders' article, "Pegasus: Winner or Also-ran?," Naval Institute Proceedings, September 1981, 42-43.

commissioning of the PC gives an insight to the problems of the past and for the future.

Until the introduction of the PC, SBR's operated the few patrol boats in service for the Navy. These Patrol Boats (PB's) were the 65-foot MK III and 68-foot MK IV *Sea Spectre*. When the U.S. agreed to re-flag Kuwaiti oil tankers in 1987 (Operation *Earnest Will*) in response to attacks on shipping by Iranian Revolutionary Guard small boats (Boston Whalers and Boghammers), the decision was made to use patrol boats to escort the tankers. These PB's were an essential ingredient in protecting the flow of oil from the Middle East. With the Navy's frigates and destroyers too big and slow (in terms of quick acceleration and maneuverability) to effectively intercept the small boats of the Iranian Navy, the U.S. Navy decided to turn to the PB's. The PB's acted as interceptors to keep the smaller boats away from the escorted tankers. The SBU's assigned their aging fleet of MK III and MK IV PB's this mission.<sup>23</sup> It became readily apparent the PB's were not designed to operate in the environmental conditions present in the Persian Gulf and although the crews performed admirably and accomplished their mission, it was at a price. These conditions included severe sea states, long hours underway, and constant hardships on the crews, which meant little rest and the need for constant repair and upkeep to maintain the boats in a seaworthy condition.

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<sup>23</sup> Dr. John W. Partin, "Special Operations Forces in Operation *Earnest Will/Prime Chance I*," U.S. Special Operations Command and Research Office, April 1998, 27, NHC (AR). This study gives a detailed account of SO during Operation *Earnest Will*.

This capability shortfall did not go unnoticed. In October of 1988, Admiral J.W. Nyquist, Assistant Chief of Naval Operations (ACNO), issued a memorandum over the concern that the current craft in the inventory could not meet the needs and requirements of the fleet and unified commanders' operations plans.<sup>24</sup> It became apparent that a larger patrol boat was required which could handle higher sea states, remain on station for longer duration, have improved armament, and better crew living conditions.<sup>25</sup> This was the beginning of the Patrol Craft, Coastal (PCC) program that eventually resulted in the commissioning of *USS Cyclone* (PC 1).

As the fleet was initiating the PCC program to fill the operational shortfalls encountered in the Persian Gulf, Naval Special Warfare Command (NSWC) was exploring the possibilities for a replacement for the MK III and IV PB's. NSWC was searching for a high-speed craft capable of long-range transits in 6-foot to 8-foot seas.<sup>26</sup> This new craft was designated Special Warfare Craft, Coastal (SWCC). The completion of these two programs, PCC and SWCC, took an interesting turn. Both programs required new procurement, but the ACNO believed these two programs were similar enough that separate procurement

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<sup>24</sup> MEMORANDUM from the Office of the Chief of Naval Operations, Ser 03/8U2126, (14 October 1988), Washington DC. This memorandum was cited in LCDR Brian D. Peterson, USN, *The Patrol Coastal Ship: Then, Now, and in the Future*, MMAS Thesis (Fort Leavenworth, KS: US Army Command and General Staff College, June 1998), 4.

<sup>25</sup> Partin, 122.

<sup>26</sup> Dennis Doyle, Joseph Mayer and Frank N. McCarthy, "The Patrol Coastal CYCLONE Class: A Description of the Newest Addition to the U.S. Navy," Abstract 1993, 3.

programs were not warranted;<sup>27</sup> thus the PCC and SWCC program requirements were combined. This new vessel was called the Patrol Boat Coastal (PBC),<sup>28</sup> and sixteen PBC's were requested, with 13 PC's eventually being delivered.<sup>29</sup>

This obvious need to replace the MK III and MK IV PB's became the catalyst in the development and procurement of the first brown water platform introduced in United States Navy since the PHM's in the early 1980's. The intention of the PCC program was to give the Navy an improved capability to operate in the littoral regions of the world. This needed capability could not wait for the normal acquisition process that usually saw a ship built today being constructed from plans drawn 15 to 20 years earlier.

What resulted from this was a hybrid. It was not a replacement for the MK III and IV PB's but a ship capable of CP&I operations as well as a platform configured to conduct a variety of SO missions. The PBC was based on the Vosper Thornycraft's 170-foot, *Ramadan* class PB, built for the Egyptian Navy. This design was modified to meet contract specifications.<sup>30</sup>

Due to the size of the PBC, the Chief of Naval Operations (CNO), Admiral Jeremy Boorda, inquired into the possibility making it a commissioned vessel.<sup>31</sup> The CNO felt a vessel this size would be a superb command opportunity

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<sup>27</sup> Ibid., 4.

<sup>28</sup> Years later the SWCC program would be revived and the MK V, Pegasus, patrol craft would be added to NSWC in 1997.

<sup>29</sup> Currently PC 14, *USS Tornado*, is being built with a delivery date in 2000. Due to fiscal constraints in operating 14 PCs, it is probable that one of the older PCs will have to be decommissioned.

<sup>30</sup> Doyle, Mayer, and McCarthy, 5.

<sup>31</sup> Ibid.

for Lieutenant Surface Warriors.<sup>32</sup> With this in mind, the CNO made the proposal to the Secretary of the Navy. In 1991, the Secretary of the Navy made the decision to commission the craft.<sup>33</sup> With the change in status from “boat” to “ship” the B (for boat) was dropped and this new class of ship was renamed the *Cyclone* Class Patrol Coastal (formerly PBC 9001).

The PC is a 170-foot 320-ton ship. Operating with four Paxman diesel engines connected to four fixed pitch propellers, the PC can reach a speed of 35 knots from a dead stop in approximately 30 seconds. Two diesel generators rated at 155 kilowatts each power the electrical plant. Current improvements in the engineering configuration have increased the ship’s range, speed and fuel economy. By adding new six-bladed propellers, upgrading the engines to handle more revolutions per minute (RPM) and increasing the fuel capacity, the ship has increased its ability to conduct unassisted open ocean transits, extended duration on station, and improved fuel economy.<sup>34</sup>

Other upgrades have improved the PC’s ability in conducting CP&I missions as well as increased support for SOF and CD missions. One new improvement was the reconfiguration of the stern area. The aft end of the ship was cleared (removal of the crane, boat and boat cradle) and the Combatant Craft

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<sup>32</sup> The last Navy ships to provide Lieutenants the chance to command was in the early days of the PHM program.

<sup>33</sup> Naval Sea Systems Command, 1991 Command Headquarters History, TAB X-29. NHC (AR).

<sup>34</sup> Special Boat Squadron Two, Command History: 1997. NHC (AR). In 1997 *USS Typhoon* (PC 5) had a ship modification completed to increase its fuel carrying capacity. This modification increased the amount of fuel carried from 12,620 gallons to 18,100

Retrieval System (CCRS) was installed. The CCRS is a ramp operated by hydraulics that extends into the water to retrieve NSW Rigid Hulled Inflatable Boat (RHIB), SEAL Delivery Vehicle (SDV) or Combat Rubber Raider Craft (CRRC). This improved operational and tactical asset can enhance the PC's mission of maritime support of NSW and CP&I operations. By marrying the NSW RHIB to the PC, two legs of the NSW "Surface Mobility Triad"<sup>35</sup> are able to deploy as a package. This provides the CINC with a force package for both long range (PC) and short range (NSW RHIB) SO missions. With the middle leg of this triad added, the MK V Special Operations Capable (SOC) PB, and the CINC can considerably increase the flexibility of his maritime SO and coastal patrol assets.

Weapons upgrades have also been a major factor in the evolution of the PC. The original unstabilized 25MM chain gun in the after portion of the ship was replaced with a gyro-stabilized 25mm gun system that also incorporates a 40MM grenade launcher. This coupled with stinger missiles, an unstabilized 25MM chain gun on the bow, 2 to 3 dual .50 caliber machine gun mounts and a 40MM grenade launcher enables the PC to concentrate considerable firepower very quickly onto a target. In addition to these hardkill systems, the PC is equipped with a MK-52 chaff/decoy system and has a Signals Intelligence

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gallons. When *USS Typhoon* (PC 5) and *USS Sirocco* (PC 6) deployed in October 1997, they proved the concept that the PC could transit the Atlantic unassisted.

<sup>35</sup> Scot R. Gourley, "Cyclones in the Littorals: Modernizing the NSW "Surface Mobility Triad"," Sea Power, February 1998, 37. This article gives information on the capability of NSW to operate in the short, medium, and long-range areas. The capability for all

(SIGINT) system capable of detecting the presence of enemy electronic transmissions.<sup>36</sup>

Just because the PC is small compared to a destroyer does not mean it is not a platform capable of sustained operations. Some of the PC's numerous advantages and capabilities are size, endurance, speed, advanced C4I, SEAL/SBU supportability, and flexibility. The combination of these capabilities makes the PC a much sought after asset.

## **SPECIAL OPERATIONS MARITIME EMPLOYMENT**

Upon commissioning the PC, USSOCOM and the Navy had not established a well-laid plan aimed at effectively employing these ships.<sup>37</sup> The United States was concentrating on the larger problem of how to take the fight to the USSR and defeat its growing fleet. Because of this environment, the boat squadrons that participated in Operations *Market Time* and *Game Warden* during

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three assets to operate in unison, with the PC as a support vessel, greatly increases the capability for conducting SO missions.

<sup>36</sup> Information based in author's personal knowledge and Jane's Fighting Ships (1998-99). While Jane's is an excellent guideline for the baseline capabilities of the PC, it can be deceiving. Jane's reports the testing of a new countermeasure system on PC 7, (the Wallop Super Barricade Mk 3) it fails to note the use of multiple dual mounted .50 caliber machine guns.

<sup>37</sup> Commander, U.S. Atlantic Fleet, Command History for 1991 (S/NF), 3 February 1994, and Command History for 1992 (S/NF), 18 January 1995. NHC (AR). In 1991, the CNO tasked CINCLANTFLT to take the lead in developing and implementing the PC (then known as the PBC) certification program. The 1992 Command History refers to the ongoing work remaining in developing the certification process. It is the author's opinion that there was not enough cooperation between USSOCOM and CINCLANTFLT in the initial development and implementation of the certification program.

the Vietnam War eventually shrank and migrated from the fleet structure into the NSW community. The focus of the Navy at this time was to build bigger and more capable ships. On the other hand, small boats that distinguished themselves so well in the jungles and coasts of Southeast Asia found themselves looking for a home and a mission. The PC encountered the lingering effects of the “blue water” ethos upon introduction to the fleet in 1993.

At the time of the PC’s commissioning, the Navy was just beginning to look toward the littorals. The compromise that created this ship, in response to requirements generated in the aftermath of Operation *Earnest Will* and the Gulf War, meant these ships were to be used by a community originally seeking a replacement for the MK III and MK IV PBs. In the years following Vietnam, the SBU’s concentrated on supporting SEALs in the coastal and riverine environment, with the majority of their deployments in South America and Europe. NSW had no experience operating vessels the size of the PC. This lack of experience resulted in many misunderstandings by the Navy, NSW and USSOCOM. The PC crews were forced to learn their trade the hard way, through trial and error.

Shortly after Commissioning, *USS Cyclone* and *USS Tempest* had their sea duty certification training compressed so they could take part in operations off Haiti.<sup>38</sup> “The PCs demonstrated their versatility during both SUPPORT DEMOCRACY AND UPHOLD DEMOCRACY; they proved their usefulness in

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<sup>38</sup> United States Special Operations Command, 10<sup>th</sup> Anniversary History, 1997, 49. NHC (AR).

coastal operations and showed they could support both SEALs and Special Boat Unit operations.”<sup>39</sup> Despite this initial success, some senior leaders in the Navy had inaccurate perceptions of their seaworthiness or ability to conduct sustained operations.<sup>40</sup> Others felt that since the PC’s were not directly in the Navy chain of command, then problems would arise that should be handled by professional sailors.

As a component of USSOCOM via NSWC, the PC’s chain of command is directly tied to the NCA (see figure 2) Because of this chain of command, the Navy is not involved in the everyday operation of the PC. The only reason they are involved at all is that the vessel is a commissioned ship. The rules and regulations that apply to a cruiser, for example, apply to the PC.

## **THE PATROL COASTAL CHAIN OF COMMAND**

**NCA  
I  
USSOCOM  
I  
NSWC  
I  
SBR  
I  
PC  
(Figure 2)**

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<sup>39</sup> Ibid, 52.

<sup>40</sup> A source, field-grade officer at a CINC staff, who wishes to remain anonymous, interview by author, 6 April 1999.

Today, PCs are in high demand, and a request for a constant PC presence has been requested by each theater CINC.<sup>41</sup> The result of this high demand has the staffs of USSOCOM and the theater CINC's working together to provide a schedule able to meet the requirements for PC's in the future.

The PC has supported SO missions in numerous exercises and operations since 1993. During Operations *Restore Democracy* and *Uphold Democracy*, the PC was involved in Direct Action and Special Reconnaissance (in support of CP&I) missions.<sup>42</sup> Since the time of the Haiti operations, the PC has been demonstrating its usefulness through active participation in U.S. and multi-national exercises throughout the world.<sup>43</sup> In these exercises, the PC was used extensively as an advance force platform. Operating ahead of follow-on forces the PC (with its attached SEAL teams and SBU personnel) was responsible for the accomplishment of a number of UW, DA and SR missions. The PC showed the ability to operate independent of the main force while accomplishing missions aimed at preparing the battlespace for follow-on forces (i.e. coastal, hydrographic, and inland reconnaissance).

As a reconnaissance asset, the PC offers many capabilities in a small package. The PC is equipped with a threat warning system and an associated

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<sup>41</sup> CAPT. Jon Wright, USN, Head, Naval Special Warfare Branch (N851), interviewed by author, 05 February 1999.

<sup>42</sup> United States Special Operations Command, 10<sup>th</sup> Anniversary History, 48-52. NHC (AR). During these operations, the PC conducted vessel boardings using SEAL and Canadian teams as well as, imposing UN economic sanctions collecting information and checking sea traffic in the area.

<sup>43</sup> During the author's deployment to EUCOM in *USS Cyclone* (May-October 1997), he conducted nine multi-national and NATO exercises.

cryptologic and Electronic Intelligence (ELINT) subsystem that have proven useful in conducting SR of coastal areas and choke points.<sup>44</sup> Another reconnaissance asset the PC is equipped with is a tactical video system. This system can provide near real-time transmission of still photo and video products. With the ability to operate in a clandestine manner, remain on-station, and provide connectivity with national assets, the PC has proven its usefulness in conducting SR operations while maintaining a small U.S. presence.

SR missions can sometimes call for more personnel than a PC has designated berthing for (the PC has nine designated berthing spaces). This limitation has not prevented the PC from conducting missions that require more personnel than beds. In the past, the PC has conducted operations with as many as 40 SO personnel embarked.<sup>45</sup> It is understood that when a PC is required to support missions of this size the time actually spent onboard the ship is planned around the expected duration of the mission. By keeping the time spent onboard to a minimum, the stress caused by overcrowding is reduced and has not hampered the conduct of the missions.<sup>46</sup>

When planning SO missions other methods for inserting SEALs may prove to be more clandestine (i.e. submarines or aircraft). While submarines and aircraft can be used, the PC is cheaper to operate, more readily available

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<sup>44</sup> Author's personal knowledge. The Privateer system is used to detect possible threat emitters associated with possible enemy fire control systems. This system is similar to the OUTBOARD and SLQ-32 systems found on U.S. cruisers and destroyers.

<sup>45</sup> Author's personal experience. During Exercise *Dynamic Mix 97-2*, *USS Cyclone* and *USS Tempest* operated with as many as 40 U.S. SEALs, Greek SEALs, and U.S. SBU personnel and associated boats and equipment.

(submarines and aircraft have competing missions) and constantly train in this environment.

Outside of the traditional SO mission areas the one the PC is most involved in is CD operations. Today, the SOUTHCOM requirement for PC's, in support of CD operations, takes up the majority of all PC deployments. The conduct of CD operations in SOUTHCOM offers an excellent example of the PC's capabilities and benefits it can provide when operating in the littorals.<sup>47</sup>

Drug smugglers are extremely adaptable operating fast, small boats, easily available to move their product. The smugglers normally operate in the shallow areas of the Caribbean, where most Navy vessels are too big to go and the Coast Guard's boats are too slow to effectively operate. This is where the advantage of the PC's speed, size, and communications capabilities come in to play.

The ability to communicate with other area assets such as P-3 aircraft, USCG Cutters, other Navy ships, and the other legs of the NSW Triad,<sup>48</sup> as well as shore based assets, allow the PC to receive information to help it stake out choke points where the drug runners are most likely to transit.<sup>49</sup> Using its sprinting ability and in conjunction with the other assets mentioned, the PC has made some impacts in

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<sup>46</sup> Ibid.

<sup>47</sup> United States Southern Command, Command History from February 1994 to February 1996 (S/NF). NHC (AR).

<sup>48</sup> The NSW Triad consists of the PC, MK V (SOC) PB and the NSW RHIB.

<sup>49</sup> LCDR V.D. McBeth, former Commanding Officer, *USS Tempest* (1996-1998), interview by author 23 November 1998.

the trafficking of illegal drugs.<sup>50</sup> This proven ability to operate in a joint environment has made the PC a highly desired asset by the CINC in the SOUTHCOM AOR.<sup>51</sup>

The experience the PC has in conducting Coastal JCETs and FID operations is transferable to the realm of Coalition Warfare Support. This experience in operating with friendly countries on a regular basis means that when the need arises for coalitions to form the PC will have had experience with most of the countries involved. In the event that this is not the case, the fact that PCs consistently operate with small navies makes it easier to relate to the problems and concerns these forces may have.<sup>52</sup>

In terms of HA operations, the PC has been involved in NEO exercises, operating as a platform patrolling the coast for parties requiring assistance or to prevent hostile parties from entering a region undergoing an internal conflict or humanitarian crisis.<sup>53</sup> They can also act as a platform sent in advance of a possible operation to remain off the coast and assess the situation. This can prove useful when a perception of active U.S. involvement may not be desired.

PC's are currently poised to meet the maritime requirements of the theater CINCs and fleet commanders. At this time, numerous discussions are ongoing

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<sup>50</sup> Ibid.

<sup>51</sup> CAPT Jon Wright, USN, Head, Naval Special Warfare Branch (N851), interviewed by author, 5 February 1999. The JCS has mandated SOUTHCOM as the priority customer for PC deployments.

<sup>52</sup> Author's personal experience working with numerous European, Middle Eastern, and South American countries.

<sup>53</sup> Commander, U.S. Atlantic Fleet, Command History for 1997 (S/NF), 17 November 1998. NHS (AR).

regarding the future of PC's. Yet, the current USSOCOM POM for fiscal year 2000 does not have the funding for maintaining the entire fleet of PCs. The current plan is to decommission six PC's between the years 2002 and 2004. Due to the numerous requests, for PC's by the CINC's, a search is on to try to reconstitute the money needed to retain anywhere from 10 to 13 ships.<sup>54</sup> Another factor that plays into how many PC's to keep is the issue of homeporting PC's overseas.<sup>55</sup> The thinking is if PC's are homeported overseas, then fewer ships will be needed.<sup>56</sup> On paper, this looks good, but in reality this will tend to overstretch an already overworked fleet and personnel. For the PC to decrease its workload, other assets will have to assume some of its current responsibilities. The United States Coast Guard (USCG) is the ideal choice to assume the CD mission that PCs are conducting.

In 1997, the USCG conducted a four-month operational evaluation period with USS *Thunderbolt* (PC 12).<sup>57</sup> At the conclusion of the test period, the USCG decided the PC could support the Coast guard's CD missions.<sup>58</sup> On 17 March 1999, the U.S. House of Representatives approved H.R. 820. Located within this bill was a provision for approximately 220 million dollars for the USCG to

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<sup>54</sup> CAPT Jon Wright, USN, Head, Naval Special Warfare Branch (N851), interviewed by author, 05 February 1999.

<sup>55</sup> Head, Naval Special Warfare Branch (N851) electronic mail to the Author, subject: "More PC Info," 17 March 1999. Included is a discussion on a USSOCOM PC conference that revalidated the need by the CINCs for PCs in their AORs. It continues to point out the need for all 13 PCs.

<sup>56</sup> Areas currently being considered for homeporting are Spain, Japan, and Puerto Rico.

<sup>57</sup> CDR R. Elder, USN, Operations Officer, Special Boat Squadron Two, interviewed by author, 19 March 1999. The USCG was evaluating the PC as part of their search for a replacement for their Island Class Patrol Boats

improve its capability to conduct CD missions. Additionally, the bill in effect authorizes the USCG buy six PC's, while indicating a need for seven PC's.<sup>59</sup> If the USCG is successful in obtaining these PC's, then they would more than likely be used in SOUTHCOM for conducting CD missions taking the burden off NSW's PCs.

Recently the USSOCOM Assessment Directors (AD) reported that 13 PC's should be retained. If this decision survives the Board of Directors meeting in May 1999, then USSOCOM may retain all 13 PC's.<sup>60</sup> This, coupled with a plan to operationally support the theater CINC's with PC's, shows dedicated support for future deployments.

Yet during the time that the USCG was evaluating the PC, discussions continued to consider decommissioning of up to six of the PC's. Different contingency plans had the USCG buying the decommissioned PC's. However, these plans seem to change on a weekly basis. The current plan at the time of this writing (April 1999) is to retain 13 PC's provided, the CINC of USSOCOM concurs with the Board of Directors.<sup>61</sup>

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<sup>58</sup> Ibid.

<sup>59</sup> Head, Naval Special Warfare Branch (N851) electronic mail to the author, subject: "More PC Info," 17 March 1999.

<sup>60</sup> Ibid.

<sup>61</sup> Ibid.

## HOW THE PATROL COASTAL FITS WITHIN THE CINC STRATEGIC FRAMEWORK

The National Military Strategy states that the national military objectives are “to defend and protect our U.S. national interests, our national military objectives are to Promote Peace and Stability and, when necessary, to Defeat Adversaries. U.S. Armed Forces advance national security by applying military power as directed to help Shape the international environment and Respond to the full spectrum of crisis, while we also Prepare Now for an uncertain future.”<sup>62</sup> The PC, while small in size, has proven an important asset for the theater CINC in support of his missions and goals in the littorals.

A Carrier Battle Group (CVBG) or an Amphibious Ready Group (ARG) can provide forward presence with the ability to project power far beyond the reach of the PC. However, the PC has the ability to go places larger ships cannot. The PC, because of its ability to operate in shallow waters, has shown the flag in support of theater CINCs’ goals and USSOCOM missions in out of the way places such as Tulcea, Romania, and Symi, Greece.<sup>63</sup>

Defending the interests of the U.S. within a particular region of the world is assisted through the use of military presence and only when necessary by use of force. “We use presence to actively mold the security environment in

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<sup>62</sup> Joint Chiefs of Staff (JCS) Pamphlet, National Military Strategy of the United States of America: Shape, Respond, Prepare Now: A Military Strategy For A New Era (Washington, DC: JCS, 1997) 2.

<sup>63</sup> Based on the author’s experience. During the summer of 1997, *USS Cyclone* (PC 1) deployed to the European Theater.

peacetime—this is what is meant by “engagement.” Our aim is to reduce the conditions that lead to conflict. Engagement activities have a tremendous beneficial impact promoting democratic ideals and principles.”<sup>64</sup> The PC allows the CINC the option to send a small, capable warship to regions where larger ships with larger crews either can not go due to their size or should not go because of the message that such a large presence may present.

By using the PC in the developing stages of relationships with emerging countries the CINC can show the willingness to explore future activities while not giving the impression of full U.S. involvement. A ship the size of a PC does not attract as much attention as an aircraft carrier would. In addition to performing the function of goodwill ambassadors and a tool for engagement, developing nations militaries have more in common with a vessel the size of the PC than they would with an aircraft carrier. By using this common bond (as is done for JCET missions), the PC has been able to establish credibility with these nations that has led to increased understanding and cooperation.<sup>65</sup>

In addition to acting as an effective engagement tool for the CINC, the PC (again due to its size and shallow draft) is able to navigate in waters other U.S. warships cannot. What this does is give the CINC another tool to use to ensure the freedom of the maritime lines of communications (LOCs) within his AOR.

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<sup>64</sup> USEUCOM homepage, [www.eucom.mil](http://www.eucom.mil), under “United States European Command 1998 Strategy of Readiness and Engagement,” downloaded from America Online, 1 April 1999.

<sup>65</sup> During the author’s time as Commanding Officer of *USS Cyclone*, he found this true on visits to Romania (June and August 1997), Ukraine (August 1997), Columbia (March 1998), and Ecuador (April 1998).

This ability to transit straits, canals, and rivers has resulted in an increase in the ability of the CINC to pursue his engagement strategy to areas unreachable by U.S. naval ships before.<sup>66</sup>

An effective way to “promote” peace and stability is through active engagement with our allies and the developing nations of the world. Many of the Former Soviet Union, South American, and other developing countries are struggling to control internal dissent, build a stable military infrastructure, and become interoperable with other established militaries of the world (the United States in particular). These issues make it imperative for these countries to receive training directed to assist them in developing a modern military.

As part of their active engagement strategy, CINCs seek to promote stability, democratization and military professionalism in developing countries within their AOR. In addition, the CINCs continue to build on these foundations already present in the developed countries. The PC has become an important asset to the CINC in engaging, building and maintaining the security environments of their AOR’s.<sup>67</sup> The FID programs are used by CINCs to assist friendly nations develop and improve their military capabilities. The PC is an essential asset to the CINC in operations dealing with training Host Nation (HN) navy and coast guard “individuals and units in basic ...maritime skills, provide advice and

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<sup>66</sup> In 1997 *USS Cyclone* transited the Danube River in Romania, transited the waterways of Venice and the rivers of Ecuador. *USS Tempest* transited the Corinth canal in Greece and *USS Thunderbolt* the canals of northwestern Germany.

<sup>67</sup> The PC was first used in this environment in Operations *Support Democracy* and *Uphold Democracy*. For more information see United States Special Operations Command, 10<sup>th</sup> Anniversary History, 1997. NHS (AR).

assistance to military leaders, and provide training on tactics, techniques, and procedures required to protect the HN from subversion, lawlessness, and insurgency, and develop indigenous individual, leader, and organizational skills.’’<sup>68</sup>

Many third world countries have an ill equipped and poorly trained navy or coast guard. Because of this low-tech environment, the presence of high tech, multi-dimensional surface combatants serves little practical purpose when it comes to training these developing militaries. By using vessels of the same size and capabilities (namely the PC), the two navies can develop a common bond to use as a tool in assisting these countries navies to develop. A proper “package” tailored to train foreign brown water navies and coast guards has to be assembled that can relate on the same level as the country being helped. For this reason, PCs have been actively engaged with friendly counties around the world conducting Coastal Joint Combined Exercises for Training (JCET).<sup>69</sup>

USSOCOM plays an important role in assisting theater CINC’s to engage and shape the international environment. As an asset that directly operates under USSOCOM, the PC plays an important role in accomplishing USSOCOM’s goals and missions in the littoral regions. Of the over 200 JCET’s and 190 CD missions conducted by SO personnel in over 100 countries the PC has played an important

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<sup>68</sup> Joint Publication (JP) 3-05, Doctrine for Joint Special Operations (Washington, DC: Joint Chiefs of Staff, 17 April 1998), II-6.

<sup>69</sup> While in command of *USS Cyclone*, the author conducted exercises and training with thirteen different countries.

role over the past few years.<sup>70</sup> The operations PC's have conducted in SOUTHCOM over the past four years have shown that the CINC sees a critical need to use the PC as tool to meet his goals.<sup>71</sup>

In many cases when governments are not speaking to one another, the military leadership continues to maintain an essential open line of communication. This dialogue is useful as a continued avenue of engagement when other means fail. In the littoral regions, SOF participates in this through FID, CD and JCET missions. For years, SOF has filled the role of "warrior-diplomats capable of influencing, advising, training, and conducting operations with foreign forces, officials and populations".<sup>72</sup> Through an ongoing cooperation with countries throughout the world, these forces have gained an expertise that has prepared them to react to any regional contingencies that may arise. This regional expertise is invaluable in the planning, preparation, and execution of possible contingency plans. Regional expertise is a cornerstone that helps shape the international environment during peacetime. The PC has been gaining this experience by means of an aggressive deployment plan aimed at engagement in the SOUTHCOM AOR. The size of the PC and missions it is designed to accomplish have made this ship the perfect asset in helping the CINC shape the

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<sup>70</sup> Joshua A. Kutner, "Special Operations Clout Hinges on Modernization," National Defense, April 1998, 23.

<sup>71</sup> A source, mid-grade officer at a theater CINC staff, who wishes to remain anonymous, interview by author, 7 April 1999. Current request for PC deployments by Joint Inter-Agency Task Force East (JIATF-East) is for a constant 4-6 ship presence in the Caribbean. USSOCOM is currently providing 2 PC's to SOUTHCOM's AOR.

<sup>72</sup> William S. Cohen, Annual Report to the President and the Congress 1998, Washington, DC, 51.

environment within his AOR. Over the past four years, the PC has been an integral part improving the relations and military cooperation with Colombia, Peru, Venezuela, and Ecuador through the JCET programs. In addition, while operating with Joint Inter-Agency Task Force East, PC's have been instrumental in the seizure of numerous shipments of narcotics headed for the United States.<sup>73</sup>

Before the PC, the SBU's conducted JCET missions (for both coastal and riverine operations) among foreign navies and coast guards. JCET's are an essential building block in the war on drugs and offer an ideal engagement opportunity between friendly nations. Before its decommissioning in 1998 SBU 26, based in Rodman, Panama, conducted the Coastal and Riverine JCET missions in SOUTHCOM's AOR. Since this time the PC has taken responsibility for conducting the Coastal JCET's with the SBU's (using RHIB's and the MK V PB's) continuing to perform Riverine JCET's.<sup>74</sup> This training over the years has allowed the U.S. to remain actively engaged in South America.

The efforts of the PC's and SBU's have resulted in a very active presence in this region, and training provided to the countries involved in the JCET's has allowed them to increase their readiness and capabilities. The engagement

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<sup>73</sup> Special Boat Squadron Two, Command History: 1997, 12 March 1998. NHC (AR). While this gives an account for the largest bust of marijuana by a PC to date, other accounts remain classified.

<sup>74</sup> With the base in Rodman, Panama no longer available the SBU's MK V PB and RHIB's must rely on air transportation to get in-theater (budget cutbacks and scarcity of air assets has resulted in fewer SBU deployments to SOUTHCOM). Once all PC's are back-fitted with the CCRS (and its associated RHIB), it will be possible for a PC to support a limited Riverine JCET in conjunction with a Coastal JCET. For more information on SBU 26's past JCET's see SBR 2's Command Histories between 1990-1997, most notably look at the year 1993.

training conducted by the PC's center around improving the host country's ability to conduct operations in the coastal and riverine environment.<sup>75</sup> One noted benefit of this training has been to enhance or build the capability of countries to reduce the flow of drugs within their region.<sup>76</sup> These training exercises have also been instrumental in building close working relations with South American governments. The goal of the JCET missions in South America is to enhance the ability of these nations to protect their coasts and enforce local maritime laws. A benefit to operating with these countries has been an increased opportunity to practice, improve and develop PC CP&I tactics and procedures.

Without the PC the CINC would be left without an asset ideally suited to conduct coastal JCET missions. Destroyers and cruisers lack the expertise in coastal operations and their high technology equipment is not what these countries need or can afford. On the opposite spectrum, the SBU's small boats and USMC riverine units are most effective for providing training solely in the riverine environment. The United States Coast Guard (USCG) is an option that can and does provide valuable training in the enforcement of international

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<sup>75</sup> In 1998, the author conducted the first JCET's by a PC (*USS Cyclone*) in Colombia and Ecuador. Since this time, the PC has requests to conduct 6 to 10 JCET's a year.

<sup>76</sup> Don Fithian, Head JIATF-East Analysis and Reports Group, interviewed by author 14 April 1999. In February 1999, *USS Shamal* intercepted the *MV Kahn*, this interception resulted in the seizure of 5 tons of cocaine. At the time of this writing the total quantity of drugs seized attributed to PC involvement is being compiled. This information is expected to be available by July 1999.

maritime law, as well as the conduct of boarding operations.<sup>77</sup> What they can not provide is the military training required to operate in the coastal environment.

In today's environment of small budgets and ever increasing commitments, the PC is an economical platform that can be used to fill a role in shaping the international environment. PC's are inherently capable to bridge the gap between the blue water and the littorals.

## CONCLUSION

An article by Scott R. Gourley discussed these issues in terms of the modernization of the NSW "Surface Mobility Triad". With the acquisition of the PC, MK V, and NSW RHIB over the past five years, Mr. Gourley sees NSW as having "three primary platforms to conduct their unique surface-mobility operations: long-range *Cyclone*-class patrol coastal (PC) vessels; medium-range MK V special operations craft (SOC); and a short-range assortment of the rigid inflatable boats known generically as 'RHIBs'".<sup>78</sup> Yet how should the three legs of the "Triad" be employed? These three assets should make up a focal point of USSOCOM's maritime arm for the future. With the installation of the CCRS on the PC's and allowing the NSW RHIB's<sup>79</sup> to deploy with the PC as a package,

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<sup>77</sup> Author's personal experience. While on a JCET mission to Ecuador in April 1998, *USS Cyclone* was assisted by a USCG Law Enforcement Training Team.

<sup>78</sup> Scott R. Gridley, "Cyclones in the Littoral: Modernizing the NSW "Surface Mobility Triad'", *Sea Power*, January 1998, 37.

<sup>79</sup> It should be noted that the SDV is capable of operating from the CCRS. This adds another dimension to the employment of PCs.

two of the three arms of the triad will have the ability to arrive in theater as a set package. This ties the long-range capabilities of the PC with the short-range capabilities of the RHIB. With the long and short legs of the triad collocated on the PC, what is needed to complete the triad is a connection to the medium range leg, the MK V (SOC) PB.

Having a PC carry a RHIB (or a SDV) into a theater provides a CINC with an asset that he can position to best suit the situation. Couple this with the ability for SEALs to “marry up” with the PC in theater provides the CINC with a definite force multiplier. The flexibility offered by this package will only be enhanced with a MK V (SOC) in theater to operate with. The PC has the ability to act as a support ship for the MK V (SOC).

Having the “triad” working as a team, either with all three pieces or just two provides the operational commander a flexible platform from which to conduct advance force operations. With a SEAL team embarked, the SIGINT capabilities of the PC, over the horizon capabilities, and extended on station time, this package forms a potent asset for any commander. Having a force with the ability to conduct clandestine operations, well in advance of follow on forces, plays well into scenarios where knowledge of U.S. presence is not desired nor wanted.

The size of the PC has enabled CINC’s to engage countries in ways not possible with a conventional ship. The ability for a PC to operate in shallow waters has meant an increase in areas NSW forces can operate while receiving increased support. Whether it is a port visit up the Danube River in Romania or a

JCET designed to assist countries in the development and training of their navy and coast guard, the PC has made an impact. Its ability to operate on the same level as the countries it is assisting has paid great dividends in the area of military to military cooperation. It is that personal attention the PC is able to provide that has made it so successful in these situations.

If there is such an interest by the theater CINC's to operate PC's in their AOR's, then USSOCOM has to find the money in the budget to continue to provide the support that PC's offer. This means keeping all of the PC's. Even if the USCG buys new PC's (vice obtaining USSOCOM PC's) and inherits the SOUTHCOM commitment to for CD operations. USSOCOM will still have more than enough work for thirteen PC's. With the increase in trouble spots around the world, a military already straining to meet its commitments and a host of emerging nations to engage, the PC is the perfect resource to use when engaging these countries.

The diversity and demand for these ships is evidence for the need to maintain the current number of PC hulls in the fleet. The schedule of *USS Cyclone* from May 1997 to May 1998 is a perfect example how much these ships are used today. During this time, *Cyclone* was away from homeport almost 70 percent of the time. In this period, *Cyclone* completed a six-month deployment to the Mediterranean and Black Sea, and conducted two Coastal JCETs in South America (Columbia and Ecuador). *Cyclone* steamed from the Ukraine in the Black Sea to the Galapagos Islands on the equator in the Pacific. The deployment consisted of over nine exercises (NATO, Partnership for Peace, bilateral) with 26

different countries. As an asset to the Fleet commander, *Cyclone* conducted military to military visits to Romania and Ukraine. The Commanding Officer of the ship was the senior officer present (with the exception of the Embassy Naval Attaché) in these high level visits.<sup>80</sup>

The world of the future is an uncertain place and SO will play an important role in supporting U.S. military strategy. As an integral part of SO, the PC is an asset in the littoral regions that provides a capability that should not be lost. As an advance force platform the PC can gather information, assist in SR and UW, and investigate areas that need HA before U.S. forces ever enter the area. When the goal is minimum presence, the PC is the one platform capable of remaining on-station for extended periods and cheaper than other platforms.

The reasons for building the PC's are more relevant today than ever, and will be well into the next century. For this reason, USSOCOM must have a balanced plan to maintain the capabilities inherent to the PC. To do this they must continue the modernization and upgrade programs currently in place. In addition, as time goes on, efforts must begin to look at what a replacement for the PC will be. It may look nothing as the PC of today, but it must reflect the needs of SOF in the maritime environment of the future (see appendix A).

Since its commissioning, the PC community has fought an uphill battle for existence. The fight to prove itself a viable asset to USSOCOM, NSW and even

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<sup>80</sup>Based on the author's experience.

the men the ship was designed to support has been long and rocky. Just when it appears justification occurs and acceptance granted the PC hits another roadblock.

Time will tell how many PC's continue to operate into the next century.

Whether it is one or thirteen, the PC has proven itself a reliable, capable and justified asset for USSOCOM's support of the theater CINC's regional missions.

The CINC's have employed PC's in engagement operations around the world.

They have conducted CD, FID, and JCETs throughout the SOUTHCOM AOR, enforced UN sanctions in the Persian Gulf, NATO and PFP exercises in EUCOM and a deployment to the Pacific to support PACOM and Seventh Fleet exercises.

With such an incredible list of accomplishments to its credit, the PC has proven itself a credible asset to the nation.

## APPENDIX A: SON OF *CYCLONE*<sup>1</sup>

With the PC finding a place in the operational plans of today and the near future, it is never too early to look at what the follow on to the PC should be. The PC has undergone many changes since joining the fleet. These changes have come from flexing the ships to see what they can handle. The results of these experiments and lessons from real world operations will be seen when PC 14 is commissioned in 2000.

PC 14 will incorporate all system upgrades to date, and in addition, instead of having the CRSS system, the ship will be extended a few feet to accommodate a ramp system for launching and recovering RHIBs and SDVs. This enhancement, along with some shaping to reduce radar cross section<sup>1</sup>, will be the extent of the modifications. The PC has an initial service life of about 20 years and to ensure that this capability is not lost in the future, now is the time to be thinking of conceptual replacements. Some advocates are calling on the creation of “scout-fighters” using a mother ship concept as a transport to the theater of operations.<sup>2</sup>

The concept of the “scout-fighter” and mother ship is a reality today. Every ship in the fleet has the ability to support a PC in one fashion or another. PC deployments to the Mediterranean and Black Sea in 1997 have proven this

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<sup>1</sup> Originally dubbed “Son of PC” by Captain J.R. Wright during interview with the author. The author preferred “Son of *Cyclone*” to reflect the name of the lead ship of the class.

<sup>2</sup> Victor A. Meyer, “Naval Surface Warfighting Vision 2030,” *Naval Engineers Journal*, 74-88.

ability. During this period PC's were refueled and provided provisions and services by a wide range of naval vessels (LPD's, LSD's, DDG's, FFG's, AOE's and AO's).<sup>3</sup> PC's can refuel underway from any ship with an astern refueling rig or alongside while at anchor. In addition, Navy ships (depending on the class of ship) can provide services such as medical, dental, emergent repairs, repair parts, food, laundry facilities, etc. With a ship the size of a PC, support can be minimized. The "scout-fighter" concept envisions a craft the size of a MK V. As with the PC's the same applies to MK V's except the PC can operate farther away from the coast and a PC has the ability to act as a support platform for a MK V. The "*Son of Cyclone*", should be capable of carrying an assortment of craft up to the size of a MK V or Advanced SEAL Delivery System (ASDS). This future capability needs to allow USSOCOM the ability, if needed, to get these maritime assets to the theater with minimum assistance from other services.

Currently the PC has no capability to operate with helicopters, can only berth nine SO personnel (with limited space for equipment), and carry one NSW RHIB (once all ships receive the CRRS modification). The requirements listed below reflect the assessments of the PC's current capabilities and reflect the lessons learned from the past six years of operating the PC. With the technology available today and the advances envisioned in the future it should be possible to develop a vessel capable of meeting the following minimum specifications:

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<sup>3</sup> During USS *Cyclone*'s 1997 deployment support was also provided by French and German support ships.

- ⇒ Six to eight, non-displacement, twin hull, low observable platforms.
- ⇒ Length: 180-210ft.
- ⇒ Beam: 50ft.
- ⇒ MTU diesel propulsion and KaMeWa waterjets.
- ⇒ Modified well-deck capable of housing:
  - \* One, possibly two, MK Vs (canopy removed), or
  - \* Any combination of four NSW RHIBs/HSACs/SOC-Rs, or
  - \* One ASDS; or
  - \* Multiple SDVs.
- ⇒ Flight deck capable of landing H-60 variants and smaller, and hoist operations with H-47 variants and up (possibly a CV-22).
- ⇒ Deck space for DPV, multiple CRRCs, and misc. gear.
- ⇒ Helicopter-in-flight-Refueling (HIFR) capable.
- ⇒ Complement: 4 officers, 4 CPOs, 28 enlisted.
- ⇒ Berthing: 81 (36 crew, 30 SOF, 15 SBU)
- ⇒ C4I modeled around the PC-14 baseline.

By increasing the compatibility with other SO assets (i.e. MK V, ASDS, helicopters, and increased numbers of SOF personnel), the “Son of *Cyclone*” will become a more flexible platform to operate from. This increase in flexibility will enhance its ability to accomplish SO missions and in doing so assist the CINC in his regional engagement strategy. The specifications mentioned above are a starting point to begin discussions on what the “Son of *Cyclone*” should look like. The thinking has to start now if this capability is to remain for the next generation to use.<sup>4</sup>

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<sup>4</sup> LCDR V.D. McBeth, former Commanding Officer, *USS Tempest* and CAPT J.R. Wright provided input for specifications for “Son of *Cyclone*”.

## BIBLIOGRAPHY

### Primary Sources:

A source, field-grade officer at a CINC staff, who wishes to remain anonymous.

Interview by author, 6 April 1999.

Chapin, Stephen R. "The History of the PHM," Naval Institute Proceedings September 1986.

Cohen, William S. Annual Report to the President and the Congress 1998, Washington, DC, 51.

Croizat, Victor J. The Brown Water Navy: The River and Coastal War in Indo-China and Vietnam, 1948-1972. United Kingdom: Blandford Press Ltd., 1984.

Cutler, LCDR Thomas J., USN, Brown Water, Black Berets: Coastal and Riverine Warfare in Vietnam. Annapolis, MD: Naval Institute Press, 1988.

Department of the Navy. "Forward...From the Sea," Washington, DC, March 1994.

Department of the Navy. "...From the Sea," Washington, DC, March 1992

Doyle, Dennis, Joseph Mayer and Frank N. McCarthy, "The Evolution of Patrol Boat Coastal From Boat to Ship" in Association of Scientists and Engineers 29<sup>th</sup> Annual Technical Symposium, 28 May 1992.

Doyle, Dennis, Joseph Mayer and Frank N. McCarthy. "The Patrol Coastal CYCLONE Class: A Description of the Newest Addition to the U.S. Navy." 1993.

Elder, CDR R., USN. Operations Officer, Special Boat Squadron 2. Interviewed by author, 19 March 1999.

Fithian, Don. Head JIATF-East Analysis and Reports Group. Interviewed by author, 14 April 1999.

Gourley, Scot R. "Cyclones in the Littorals: Modernizing the NSW "Surface Mobility Triad",," Sea Power, February 1998, 37-39.

Head, Naval Special Warfare Branch (N851). Electronic mail to the Author, subject: "More PC Info," 17 March 1999.

Joint Chiefs of Staff (JCS) Pamphlet. National Military Strategy of the United States of America: Shape, Respond, Prepare Now: A Military Strategy For A New Era. Washington, DC: JCS, 1997.

Joint Publication (JP) 3-05. Doctrine for Joint Special Operations. Washington, DC: Joint Chiefs of Staff, 17 April 1998.

Kutner, Joshua A. "Special Operations Clout Hinges on Modernization." National Defense, April 1998.

Linder, Bruce R. "Pegasus: Winner or Also-ran?" Naval Institute Proceedings, September 1981. 42-43.

McBeth, LCDR V.D., USN. Former Commanding Officer, USS Tempest. Interview by author, 11 February 1999.

MEMORANDUM from the Office of the Chief of Naval Operations, Ser 03/8U2126, (14 October 1988), Washington DC.

Meyer, Victor A. "Naval Surface Warfighting Vision 2030," Naval Engineers Journal, 74-88.

Naval Sea Systems Command. 1991 Command Headquarters History. Navy Operational Archives, Washington, DC.

Parten, John W. Dr. "Special Operations Forces in Operation *Earnest Will/Prime Chance I*," U.S. Special Operations Command and Research Office, April 1998. Navy Operational Archives, Washington, DC.

Peterson, LCDR Brian D., USN, The Patrol Coastal Ship: Then, Now, and in the Future, MMAS Thesis (Fort Leavenworth, KS: US Army Command and General Staff College, June 1998).

Prezelin, Bernard, ed. Combat Fleets of the World 1993. Annapolis, MD: Naval Institute Press, 1993.

Sharpe, CAPT Richard, OBE RN. Ed. Jane's Fighting Ships 1998-99. Biddles Ltd., Guilford and King's Lynn and The Huntcard Group, 1998.

Sheppards, Don. Riverine: A Brown Water Sailor.

Special Boat Squadron Two. Command History For 1990, April 1991. Navy Operational Archives, Washington, DC.

Special Boat Squadron Two. Command History For 1991, April 1992. Navy Operational Archives, Washington, DC.

Special Boat Squadron Two. Command History For 1992, March 1993. Navy Operational Archives, Washington, DC.

Special Boat Squadron Two. Command History For 1993, April 1994. Navy Operational Archives, Washington, DC.

Special Boat Squadron Two. Command History For 1995, March 1996. Navy Operational Archives, Washington, DC.

Special Boat Squadron Two. Command History For 1996, May 1997. Navy Operational Archives, Washington, DC.

Special Boat Squadron Two. Command History For 1997, March 1998. Navy Operational Archives, Washington, DC.

USEUCOM homepage, www.eucom.mil. Under “United States European Command 1998 Strategy of Readiness and Engagement.” Downloaded from America Online 1 April 1999.

United States Marine Corps Development Command (MCCDC). Warfighting Concepts for the 21<sup>st</sup> Century, Operational Maneuver from the Sea. Quantico, VA: USMC MCCDC, 4 January 1996.

USSOUTHCOM homepage, www.ussouthcom.mil. Under “Our Mission,” downloaded from America Online. 1 April 1999.

United States Special Operations Command. 10<sup>th</sup> Anniversary History, 1997. Navy Operational Archives, Washington, DC.

United States Southern Command. Special Operations Handbook. Tampa, FL, 1996.

Worthington, RADM George R., USN (Ret.), “Combatant Craft Have A Role in Littoral Warfare,” Proceedings, August 1994, 24.

Wright, CAPT Jon R. Head, Naval Special Warfare Branch (N851). Electronic mail to the author, subject: “More PC Info,” 17 March 1999.

Wright, CAPT Jon, USN. Head, Naval Special Warfare Branch (N851). Interviewed by author, 05 February 1999.

### **Secondary Sources:**

Bosworth, CDR Michael, USN, Scott Black, and John R. Meyer. “Well Deck Deployable Naval Combatants.” Naval Engineers Journal, January 1994.

Chapin, Stephen R. "The History of the PHM." Naval Institute Proceedings September 1986.

Dring, CDR Timothy R., USNR. "Can We Protect Our Coasts?" Naval Institute Proceedings, February 1998.

Hamblet, LCDR Bill, USN. "Revitalizing Naval Special Warfare." Naval Institute Proceedings, June 1997.

Joergensen, CDR Tim Sloth, Royal Danish Navy. "U.S. Navy Operations in Littoral Waters: 2000 and Beyond. Naval War College Review, Spring 1998.

Joint Chiefs of Staff (JCS). Joint Vision 2010. Washington, DC. 1998

Kelsey, CDR Robert J., USN. "Maneuver Warfare At Sea." Naval Institute Proceedings, September 1982.

Linder, Bruce R. "Pegasus: Winner or Also-ran?" Naval Institute Proceedings September 1981.

Meyer, Victor A. CAPT, USN (Ret.). "Naval Special Warfare Future Concepts: The Case for Operational Mobility." Naval Engineers Journal, May 1994.

Polidoro, Michael A. The Use of Patrol Craft in Low Intensity Conflict Operations: An Alternative Model for the Employment of the Cyclone-Class (PC-1). MS Thesis. Monterey, CA: Naval Postgraduate School.

Vego, Milan N. "Potential Influence of Third World Navies on Ocean Shipping." Naval Institute Proceedings, Naval Review 1981.

Williams, LCDR Leroy G., USN. "Employing the PHMs." Naval Institute Proceedings, September 1986.

## CLASSIFIED BIBLIOGRAPHY

Commander, U.S. Atlantic Fleet. SECRET NOFORN Command History for 1991. 3

February 1994. Navy Operational Archives, Washington, DC.

Commander, U.S. Atlantic Fleet. SECRET NOFORN Command History for 1992, 18

January 1995. Navy Operational Archives, Washington, DC.

United States Southern Command, SECRET NOFORN Command History from February

1994 to February 1996. Navy Operational Archives, Washington, DC.

Commander, U.S. Atlantic Fleet, SECRET NOFORN Command History for 1997, 17

November 1998. Navy Operational Archives, Washington, DC.