NAVAL WAR COLLEGE
Newport, R.I.

The Combined Mine Countermeasures Force: A Unified Commander-in-Chief's Answer to the Mine Threat

by

Jason A. Gilbert
Lieutenant Commander, United States Navy

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Maritime Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: Jason A. Gilbert

5 February 2001

Faculty Advisor
CAPT Chet Helms, USN

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

20010530 042

14

A

REPORT DOCUMENTATION PAGE

1. Report Security Classification: UNCLASSIFIED

2. Security Classification Authority:

3. Declassification/Downgrading Schedule:

4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.

5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT

6. Office Symbol: C

7. Address: NAVAL WAR COLLEGE
686 CUSHING ROAD
NEWPORT, RI 02841-1207

8. Title (Include Security Classification): Unclassified

THE COMBINED MINE COUNTERMEASURES FORCE:
A UNIFIED COMMANDER-IN-CHIEF'S ANSWER TO THE MINE THREAT

9. Personal Authors: LCDR Jason A. Gilbert, USN

10. Type of Report: FINAL

11. Date of Report: 05 February 2001

12. Page Count: 25

12A Paper Advisor (if any): CAPT C. Helms, USN

13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.

14. Ten key words that relate to your paper:
combined, mine countermeasures, command and control, interoperability, regional, history, deficiencies, CINCPAC, Southeast Asia

15. Abstract:
The threat of mines presents a Unified Commander-in-Chief (CINC) with problems affecting the time-space-force aspects of his command. Further complicating this matter, is the U.S. Navy's inability to adequately address the mine threat problem unilaterally.

History demonstrates that the U.S. Navy's inability to maintain a mine countermeasures (MCM) force sufficiently large enough and technologically advanced enough has been nominally off-set by the strengths of a combined MCM force. Joint Doctrine supports the forming of alliances and coalitions, whenever possible, in order to integrate the capabilities of other nations and to promote regional stability. The complexities associated with combined forces are simplified by the characteristics and political appeal of MCM, making it attractive to the CINC and potential partner-nations.

Given that mines will remain a threat complicating a CINC's ability to effectively direct the operations of his forces, and that there is a legitimate need to solve the U.S. Navy's MCM deficiencies, a CINC will be able to train as he would fight and positively influence regional stability by planning for a combined MCM force.

16. Distribution / Availability of Abstract:	Unclassified	Same As Rpt	DTIC Users
	X		

17. Abstract Security Classification: UNCLASSIFIED

18. Name of Responsible Individual: CHAIRMAN, JOINT MILITARY OPERATIONS DEPARTMENT

19. Telephone: 841-6461

20. Office Symbol: C

Security Classification of This Page Unclassified

Abstract

THE COMBINED MINE COUNTERMEASURES FORCE:

A UNIFIED COMMANDER-IN-CHIEF'S ANSWER TO THE MINE THREAT

The threat of mines presents a Unified Commander-in-Chief (CINC) with problems affecting the time-space-force aspects of his command. Further complicating this matter is the U.S. Navy's inability to adequately address the mine threat problem unilaterally.

History demonstrates that the U.S. Navy's inability to maintain a mine countermeasures (MCM) force sufficiently large enough and technologically advanced enough has been nominally off-set by the strengths of a combined MCM force. Joint Doctrine supports the forming of alliances and coalitions, whenever possible, in order to integrate the capabilities of other nations and to promote regional stability. The complexities associated with combined forces are simplified by the characteristics and political appeal of MCM, making it attractive to the CINC and potential partner-nations.

Given that mines will remain a threat complicating a CINC's ability to effectively direct the operations of his forces, and that there is a legitimate need to solve the U.S. Navy's MCM deficiencies, a CINC will be able to train as he would fight and positively influence regional stability by planning for a combined MCM force.

Table of Contents

1. ABSTRACT..... ii

2. TABLE OF CONTENTS..... iii

3. INTRODUCTION..... 1

4. MINES: TROUBLE SINCE DAY-ONE..... 2

5. MINE COUNTERMEASURES: HISTORICAL SHORTCOMINGS..... 3

World War I
World War II
Korean War
Desert Shield / Desert Storm

6. HISTORY'S LESSONS..... 7

7. MINE COUNTERMEASURES:
OPTIMIZED THROUGH COMBINED FORCES..... 7

8. MINE COUNTERMEASURES COALITIONS:
PLANNING FOR SUCCESS..... 9

9. AN EXAMPLE..... 11

Unity of Purpose and Effort
Communications
Resource Consolidation
Regional Engagement

10. CONCLUSION..... 15

11. RECOMMENDATIONS..... 16

12. SUMMARY..... 16

13. FIGURE 1. 18

Notional Command Structure of
Southeast Asian Combined MCM Command

Almost every time military forces have been deployed from the United States, it has been as a member of - most often to lead - coalition forces.[1]

General Robert W. RisCassi, USA

Introduction

AP news report: "With Asian economics still in a slump, piracy has grown in Southeast Asia, luring legitimate businesses to cross over for easy money. Competition among pirates has resulted in a new tactic: the employment of small sea mines to damage transiting ships, then towing the stricken ships away to remove the cargo. In this regard, modern pirates of Southeast Asia have terrorized shippers in ways unheard of since the 19th century. Responding to the mine threat has been deployed a combined mine countermeasures force with representation from seven nations. United to secure regional economic security, the combined force comprises unlikely partners and includes the United States, Japan, the Republic of Korea, China, Australia, Singapore and Malaysia...."

The above story is, of course, fictional, but with recent world trends such a scenario isn't improbable. As the U.S. military makes headway to integrate its forces to form a more complete, more efficient joint force, parallel efforts should be made for combined forces. Indeed, historical evidence suggests that the force of choice for our future battles will be a combined force.

When the term "United Nations" was first used in the Declaration by United Nations of 1 January 1942, the concept of the combined force was formalized in modern warfare. When representatives of 26 nations signed the declaration, they pledged unity against the Axis Powers that had threatened world peace.[2] The legacy of the coalition force continued into the Korean War, when for the first time, the United Nations established a multinational military force flying the U.N. banner.[3] Most recently, during Operations *Desert Shield* and

Desert Storm, it was a combined force that was instrumental in defeating the Iraqi military machine that had invaded Kuwait.

Combined forces assuredly do not provide the "be all and end all" answer to every military crisis. However, many of the issues contributing to the friction of combined forces warfare can be alleviated if anticipated and reconciled beforehand. However, because of the United States' persistent problems with maintaining an adequate mine countermeasures (MCM) force structure, and the limited MCM resources of any one nation, it is likely that a combined MCM force will be required to counter the threat of mines. Given the impact that enemy mine warfare can have on the space-time-force aspects of mission accomplishment, planning for a combined MCM force would serve a regional Commander-in-Chief (CINC) by providing him with a more robust, effective and responsive MCM force compared to that which the U.S. Navy alone could offer, and would promote stability within his area of responsibility.

Mines: Trouble Since Day-One

The threat of mines to a maritime force has complicated operations since their invention by David Bushnell during the American Revolutionary War. Using simple pistol components and a powder keg, Bushnell set mines adrift in the Delaware River and started a form of naval warfare that was first branded as "unethical."[4] In subsequent years, the sea mine was described as a "devilish device," used only by unchivalrous nations.[5]

Ungentlemanly as the sea mine may be, its use continued, and its designs, functions and effectiveness improved. Since World War II, mines have caused damage to more U.S. ships than all other weapons combined.[6] Mine technology has advanced far beyond the simple contact mine, and has incorporated discriminating magnetic and acoustic sensors,

protective counter-countermeasures and pressure sensors that make them almost unsweepable. Unconventional case design (including camouflage), sonar deflecting paneling, non-metallic construction, and self-burying features have made mines more difficult to hunt.

Today, over 50 countries stockpile mines and have the means to employ them. Some 30 countries manufacture mines, and approximately 20 of these countries are known exporters.[7] The global stockpile of mines since the Gulf War has increased by 50 percent, and through improved manufacturing techniques and lower production costs, mines produced by cash-needy countries are available to virtually anybody with the means to produce them.[8] A country or an organization without the means to support a formidable navy could economically substitute the element of force brought by a navy with a stockpile of mines.* Assuming historical trends continue, the use of mines will remain a critical factor in warfare and will be an equalizer among nations of unequal naval strength.

Mine Countermeasures: Historical Shortcomings

History's lessons illustrate the effectiveness of MCM operations performed by a combined force. This success of combined forces MCM operations aren't because there is something inherent to multinational organizations that improve the quality of ship, helicopter, diver or the staff that executes the mission. The answer lies more in the cooperative collective of unified resources, purpose and effort that combined forces bring. Additionally, the United States' lack of regard for MCM has caused it to rely heavily on combined forces. Through history we can observe a cyclical pattern of "booms" and "busts" with respect to MCM:

- A moored contact mine cost approximately $5K - $10K. A bottom influence mine cost approximately $15K - $50K.[9]

1. An incident involving a mine occurs, reviving interest in MCM.
2. The military invests money and resources to modernize its MCM capability.
3. The initial "panic" satisfied that "something is being done," attention and funds are refocused on more traditional, "sexy" components of the military.
4. Funds and attention diverted, the MCM force enters a period of decline until the next mine crisis.

Perhaps this cycle is attributable to mine warfare's "ungentlemanly" reputation persisting through the years. MCM captures the attention of the United States when, already too late, it realizes its MCM capabilities lag behind the technological developments of the threat it was intended to counter.

World War I

Observing the decisive affect the use of mines had on both participants of the Russo-Japanese War, by 1910 most nations save the United States, had developed significant MCM forces. As a result, when thrust into World War I and having to face the German mine barrier, the United States was forced to hastily create an MCM force consisting of old fleet tugs and a few new minesweepers. In clearing the North Sea Mine Barrage, an effort requiring the collective effort of the United Kingdom and the United States, 82 ships conducted near round-the-clock operations for five months.[10]

World War II

In the inter-war period, despite the realization that MCM required numerous ships, trained crews, and intelligence specific to its operations, development in MCM stood still while mine technology advanced. Having become aware of the more sophisticated magnetic mines that the Germans had developed, Captain Alexander Sharp, USN, was directed to reorganize the U.S. Navy's MCM force. By the opening days of World War II, the Navy had an MCM program complete with new construction ships, and the employment of MCMC equipment including bow-mounted minesweeping paravanes in its ships of the line.[11]

Unfortunately, this "new" program was built around World War I technology. In spite of the obsolescence of the MCM fleet, Captain Sharp's foresight proved invaluable, when in 1944, now a Vice Admiral, he commanded the first combined MCM command tasked with preparing Okinawa for an amphibious assault. Seventy-five mine sweeping ships and numerous other ships cleared 3000 square miles off the southern coast of Okinawa in the course of one week.[12]

At the war's end, over 25,000 American mines remained deployed in the Pacific and overwhelmed the Navy, causing them to adopt a policy of sweeping only heavily trafficked areas.[13] By May of 1946, all U.S. ships were withdrawn, leaving some 13,000 mines in territorial and international waters.[14] In the three decades that followed, former Axis and Allied forces conducted clearance operations and, during the course of the effort, suffered the loss or damage of over 500 ships, mostly from mine strikes. [15]

Korean War

With the Soviet fleet looming as a new threat, the United States sought to create a fleet with a balanced mix of forces. Envisioning that the new adversary would depend on cheap, unsophisticated influence mines, reasons to develop new MCM technology seemed unnecessary. In time, the U.S. amphibious landing force found itself off the coast of Wonsan, Korea, with the nation's lack of MCM preparedness taking its toll.[16] Observing some 50,000 men and 250 ships forced to stand off, the Amphibious Task Force Commander wrote, "We have lost control of the seas to a nation without a navy, using pre-World War I weapons, laid by vessels that were utilized at the time of the birth of Christ."[17] Responding to the situation, ADM Forrest Sherman, CNO, at the time added, "When you can't go where you want to, when you want to, you haven't got command of the sea. And command of the

sea is the rock-bottom foundation of all our war plans. We've been plenty submarine conscious and air conscious. Now we're going to start getting mine conscious, beginning last week."[18]

A little known fact about the Korean War was that it was, again, a combined force that responded to the mining problem. Between the assets available from the Republic of Korea Navy (ROKN) and those U.S. ships in theater, the U.S. Navy was unable to assemble an adequate fleet of mine sweepers or call upon additional assets from outside the theater in a timely manner to meet the requirement.[19] With that, the Commander, Naval Forces Far East turned to Japan. Requisitioning old Japanese mine sweepers, and hiring retired Japanese officers and men, the mine problem was reduced to manageable levels through the combined effort of U.S. Navy, ROKN and the Japanese force.[20]

The lessons of the Korean War and the exclamations of Admirals were, however, again forgotten. By 1958, funds for additional MCM ship construction and modernization were deleted in favor of carriers and guided missile programs, causing the United States to rely on aging mine sweepers and a dwindling corps of experienced MCM experts.[21] As a final blow, in 1975, the once venerable Mine Warfare Force was reduced to a Mine Warfare Command, armed only with the capacity to advise.[22]

Desert Shield / Desert Storm

The Persian Gulf War stands out for its wealth of lessons learned, MCM not excluded. Surely, if Saddam Hussein could credit himself with any victory at all, it would be the damage he caused to the warships U.S.S. Tripoli (LPH-10) and U.S.S. Princeton (CG-59). Noteworthy to the United States was that Hussein's victories were the results of mine warfare, and again the United States found itself playing "catch up" when it needed

MCM the most. Responding to the Persian Gulf mine warfare crisis was again a combined force, comprising forces from the United States and the United Kingdom.[23] Experiences from the Persian Gulf War demonstrated both advances in MCM technology and that the U.S. Navy was, sadly, learning lessons over again. The integration of Explosive Ordnance Disposal (EOD) divers with aviation MCM and mine sweepers proved to be highly effective and redefined the United States' approach to MCM operations. However, the bulk of U.S. minesweepers were of 1950's vintage, and couldn't perform alongside the modern, more effective counterparts operated by European forces.[24]

History's Lessons

There are several common factors of these historical accounts:

1. MCM technology lagged behind that of its adversary, the mine.
2. When MCM employment was required, the United States did not have adequate assets, and augmented its forces to satisfy the need. Still today, no one nation possesses adequate resources to unilaterally counter a mine threat that could be expected in conflict.
3. Because of the scarcity and inadequacy of MCM resources, minesweepers frequently were unavailable where they were needed, when they were needed and in sufficient. The slow transit speed of minesweepers only exacerbated the problem.
4. The skills associated with MCM were found to be perishable, requiring a corps of officers and sailors to maintain a level of expertise.

Mine Countermeasures: Optimized Through Combined Forces

An answer to those issues that still persist may be that the United States needs to pay more attention to MCM, build better ships and in greater numbers, and develop a career path that supports the MCM professional. History however, offers an alternative solution. MCM

is enhanced through combined forces. Not only can combined forces answer the common problems that are repeated through history, but MCM operations also lend themselves to a collective, multinational force.

MCM operations have been, for the better part, defensive in nature. They are often humanitarian, clearing waters necessary for a nation to resume normal commerce and bring a new start to economic security. The contributions a minesweeper makes to bring a region eager to transition from post-hostilities to the security of peace have enormous political appeal, drawing participation from a multitude of nations at the end of wars. Indeed, during the Persian Gulf War, only two nations participated in MCM operations. Immediately following the cessation of hostilities, six other nations eagerly joined in the mine clearance effort.[25]

Mines, being weapons that deny free transit and access, are often placed in areas with the greatest concentration of shipping: straits, channels and transit lanes. Though often intended against a particular country, the denial affect of a minefield extends regionally, affecting a multitude of nations. With the potential for the merchant fleets of several nations to suffer from the affects of mines and the subsequent loss of economic profit, nations will readily contribute to an MCM coalition when their interests are at stake.

During the summer of 1984, mines damaged no fewer than 19 merchant ships from 15 countries in the Red Sea and Suez Canal. Six nations responded immediately to the requests of Egypt and Saudi Arabia for MCM assistance with over 46 assets.[26] The need for MCM operations attracts participation from nations eager to demonstrate global good will and mutual support.

Globally, MCM forces represent a small portion of any nation's navy. That the world's largest navies have on the average 20 MCM ships (to include ocean and coastal hunters/sweepers), is indicative that if an MCM operation half the magnitude of that of World War II or the Korean War were to take place today, no one nation would have the resources necessary for effective clearance. The need to pool scarce resources into a combined force to affect adequate clearance is apparent.

In the United States Navy, the opportunities to serve repeat tours in an MCM ship are few, and often to the detriment of the officer who chooses to do so. This limits opportunities for on the job training, critical experience and the development of new tactics, techniques and procedures (TT&P). In the absence of a corps of mine countermeasures professionals, developing a plan supportive of a combined force would serve to improve the level of proficiency within the Navy. By committing to a multinational plan, cross-nation interoperability among MCM experts also would be improved.

The success of any mine countermeasures operation—whether conducted by divers, aircraft or ships—is highly dependent on knowledge of the environment. Having an understanding of the composition of the ocean floor, its sonar reflective properties, the likelihood of a mine burying in it, and the electrical conductivity of the water, all have bearing on how an MCM operation should proceed. Knowing what was on the ocean floor before the mining took place, an MCM organization compares a "before and after" sonar picture, to improve MCM efficiency. In that no one nation possesses that level of global intelligence, multinational partners could mitigate this deficiency by contributing information particular to their region, improving overall MCM effectiveness.

Mine Countermeasures Coalitions: Planning for Success

As illustrated, a multinational force contributes to MCM effectiveness and by necessity, MCM operations require a combined force organization. A CINC has at his disposal several means by which he can develop a combined regional force making his MCM capability more effective. The National Security Strategy (NSS) supports combined forces development stating, "... while U.S. forces retain unilateral capability, whenever possible they will seek to operate alongside alliance or coalition forces, integrating their capabilities and capitalizing on their strengths, to promote regional stability throughout the world."[27] Given historical and doctrinal support for combined forces, a CINC would serve his area of responsibility best by incorporating an aggressive plan focusing on multinational relationships into his Theater Engagement Plan (TEP) .

The TEP links the ends, ways and means of strategic objectives to an engagement strategy and guides the CINC to enhance multinational interoperability.[28] It facilitates effective use of the resources at that CINC's disposal, prioritizing them to meet specific objectives to support U.S. strategy. Detailed in a TEP are the ways a CINC can engage those countries within his region. Through these engagements, the elements vital to a combined force, namely unity of purpose, unity of effort, interoperability, and minimizing and preventing risk to personnel can be strengthened.[29] Included among these ways are operations, exercises, staff talks, conferences and training. All are instrumental to bettering relationships, and if focused, would be the means to strengthen existing ties into functional multinational cooperatives. Capitalizing on the political appeal, the humanitarian nature of MCM, and the fostering of good will and mutual cooperation throughout the region, diplomatic facilitation to establish a combined MCM force would be simplified. By

anticipating the need for a combined MCM force, planning for it, and engaging regional partners in coalition planning, a CINC will be better prepared with a more effective and responsive force and will enhance regional stability.

An Example

Using the earlier fictional "mining of the Straits of Malacca" scenario as an example, a Southeast Asian Combined MCM Command is examined. For the U.S. Pacific Command, the Straits of Malacca are of significant importance. The world's dependence on the straits is evident by the 600 ships that pass through them daily.[30] Should the straits be mined, the most efficient maritime passage from the Pacific Ocean to the Indian Ocean would be blocked, necessitating ships to either wait until mine clearance was effected, or add an additional five to ten days to transit around Indonesia. For a military commander responding to a crisis whose forces needed to pass through the straits, a well-timed mining operation by a belligerent could significantly impact that commander's ability to bring forces where they were needed, in the time they were required. The example will focus on a plan CINCPAC could have in place should such an event occur.

While most issues associated with combined forces such as interoperability will be resolved through focused planning, aggressive training and exercising as detailed in the CINC's TEP, some particular issues that complicate combined force structures will be addressed.

Unity of Purpose and Effort

Having already established credible bilateral relationships based on cooperative political and military agreements with the numerous countries in Southeast Asia, CINCPAC is in a good position to foster a regional multinational MCM force. With the United States

taking the role as lead nation, it would establish a Combined MCM Command (CMCMC). Each nation would participate in the combined force, but remain under its national command. Liaison officers from each participating nation would be represented within the CMCMC headquarters. By assigning liaisons that have command authority for their own forces, the complication associated with each national command understanding, approving and executing orders could be mitigated at the headquarters level.

The proposed command and control structure and the coordination it facilitates would serve to optimize the total force capability based on the contributions of each nation and minimize parallel efforts. (Figure 1.) Maintaining a national command structure would not only ease communications difficulties and allow each nation's commander to employ his assets best according to their capabilities, but would preserve the sense of national pride, thereby appealing to that nation's political leadership, and thus helping to unify the combined force. Integral to the lead nation headquarters would be a Combined MCM Command Communications and Integration Center (C^3IC).[31] The role of the C^3IC would be ensure clear lines of communications are maintained between the CMCMC Headquarters and each of the participating national MCM commands. Further, it would serve to ensure plans from CMCMC and orders to be executed by each national MCM commander are coordinated seamlessly.

Should, in a time of conflict, one of the planned participants become a belligerent, then that nation is removed from the combined force structure. By planning for and exercising a combined force during times of peace, the demonstrated capabilities of a combined force and resolute unity of the participating nations would not only serve the

CINC's need for a better, more capable MCM force, but would promote stability within the region, discouraging would-be belligerents.

It could be argued that with a combined force of several nations, each with numerous units, that deconfliction could become a command and control issue affecting unity of effort and increasing risk to personnel. MCM operations take this factor into consideration. Because MCM units clear mines designed to damage or destroy ships, individual units operate in exclusively assigned areas. By doing so, should a mine detonate, the potential for it to damage more than one unit is minimized. This approach is not only a management tool from a safety perspective, but when applied to a multinational scenario, assigns discrete operations areas to nations, minimizing the need to deconflict with forces from other nations.

Communications

Communications, often seen as the weakest link within a combined force would be facilitated through the proposed command and control structure and by taking advantage of the simplicity of minesweepers. By preserving the integrity of national command, the communications chain is simplified and minimizes the need for additional equipment within the national command structure. The link between each nation's MCM force command and the CMCMC Headquarters could be facilitated by the United States shouldering the responsibility for providing compatible units to each nation's MCM command. Such an arrangement would minimize the need for elaborate communications schemes. Should a link between each participating unit and the CMCMC Headquarters be required, this could also be facilitated by the United States. Communications facilities on board minesweepers are constrained by limited space. As such, the communications capabilities of minesweepers are neither robust nor complicated as compared to larger combatants. As lead nation, it would

not be out of the means of the United States to provide compatible communication units for participating forces.

Resource Consolidation

A combined force with participating nations pooling their resources serves to answer the issue of having enough assets to counter the threat. By creating a combined force of regional partners, not only would the issue of asset quantity be answered, but also the issue of slow reaction time associated with the transit speed of minesweepers would be minimized. Resources are not limited to ships, helicopters and divers that perform the MCM tasks. Environmental and ocean bottom-type information should also be pooled, thereby minimizing gaps in regional intelligence.

Regional Engagement

In the scenario presented, the desired Combined MCM Command participants would be from those nations that could bring forces to clear the mine threat with the shortest delay. The expected forces would be from those nations with which the United States has long-standing military ties: Australia, Japan, Republic of Korea, Malaysia, Singapore, and Thailand. Because MCM is not characterized by aggressive, offensive operations associated with other military operations, it presents opportunities for CINCPAC to engage nations in military to military exchanges and combined operations that would otherwise be difficult. To this end, combined regional engagements with nations like China, Indonesia, Brunei and India may be possible.

It could be expected that nations that traditionally allied to the United States, but were non-regional such as the United Kingdom and France, would want to participate in a multinational engagement as proposed. Such participation would not be problematic—

provided there was no long-standing political conflict with the regional partners—as, just as with other participating nations, they would fall under their national chain of command, subordinated to the CMCMC. Further, the expertise they bring would serve to broaden the knowledge base of all participants, and improve interoperability.

Conclusion

The development of a combined MCM force that comprises regional partners stands to serve a number of issues within a CINC's scope of responsibility. Most importantly, it addresses the chronic deficiencies the U.S. Navy would have to overcome if confronted with a mine threat:

1. The United States has been unable to maintain an MCM fleet of adequate size or of technological advancement to counter a credible mine threat.-
2. The U.S. Navy has been unable to maintain a corps of MCM professionals to preserve and develop perishable skills.
3. The U.S. Navy will need to rely on the strengths of combined forces when faced with the need to conduct MCM operations.
4. The U.S. Navy currently doesn't have adequate plans to conduct multinational MCM operations in the way it would expect to respond to an actual mining situation.

By addressing theses issues with a multinational MCM partnership, the United States would not only have the means to effectively counter a mine threat, but would also serve to enhance regional stability. The demonstrated unity of the regional nations participating in mutually supporting military training, exercises and operations would be a deterrent element to would-be belligerents.

Recommendations

Given the requirements to counter a mine threat, and the way the threat of mines can influence maritime and joint operations, CINCs should develop plans for a combined MCM force consisting of friendly regional nations.

1. Expand TEPs to build on existing bilateral relationships to form multinational partnerships for MCM.

2. Address issues of command and control and develop a force structure which is flexible as to its participants. Stress the important role liaison officers play in decision-making through the command and control structure.

3. Implement steps to engage non-traditional regional nations and non-regional nations to form a strong multinational MCM force, and introduce a variety of TT&P.

4. Identify and procure equipment that serves to simplify and improve interoperability.

5. Schedule, to include levels of command from the CINC through to the tactical unit, MCM related conferences, training, exercises, and operations that emphasize multinational cooperation.

Summary

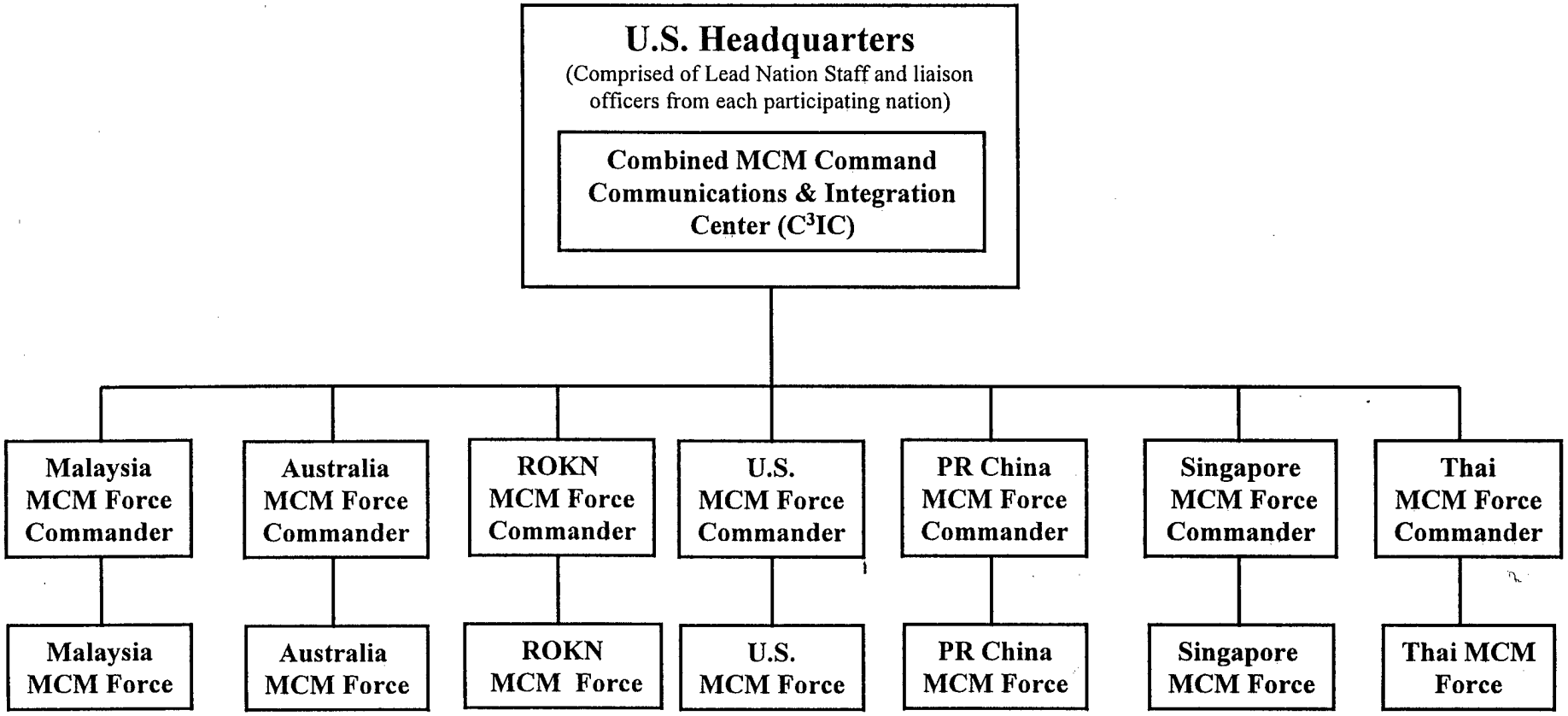
Having experienced the rigors associated with combined operations through training and exercising, a combined MCM force will be better equipped to manage a crisis situation, and operate as force more effectively and efficiently than could the MCM elements of the U.S. Navy alone.

The creation of a Combined MCM Command is a winning solution for all involved. It provides a solution for the continuing U.S. shortcomings in MCM. It addresses objectives of

the NSS and enhances a CINC's TEP. It bonds nations within a region and promotes stability and security. It fosters exchanges that are not perceived in the same manner that traditional military exchanges are, and creates opportunities to engage nations that might other wise be unengageable. Understanding the complications mine warfare presents to a maritime force, a combined MCM force as proposed in the preceding pages is a viable solution for a CINC to pursue to counter the looming threat of mines and promote regional stability.

Figure 1.

Notional Command Structure of Southeast Asian Combined MCM Command*



*Any number of nations may be represented within this force structure.
Those listed are only for illustrative purposes.

Notes

[1] Robert W. RisCassi, "Principles of Coalition Warfare," Joint Force Quarterly (Summer 1993): 58.

[2] "History of the UN," About the United Nations/History, <http://www.un.org/aboutun/history.htm/,> [21 December 2000].

[3] "The Korean War: Setting the Stage and Brief Overview," Factsheets, <http://korea50.army.mil/history/factsheets/overview.html/,> [21 December 2000].

[4] Gregory K. Hartmann, Weapons that Wait (Annapolis: Naval Institute Press 1979), 36.

[5] Ibid.

[6] Chuck Horne, "What it Takes to Go 'Anytime, Anywhere,'" U.S. Naval Institute Proceedings (January 1998): 82.

[7] Diane Droddy, <n2@cmwc.navy.smil.mil>, "Unclas Fact and Figures," [Email to Jason Gilbert, <gilbertj@nwc.navy.smil.mil>], 26 January 2001.-

[8] J. L. Jones, "Statement," U.S. Congress, Senate, Committee on Armed Services on Expeditionary Warfare, Seapower FY97 Defense Authorization, Hearings before the Senate Armed Services Committee on Expeditionary Warfare, Washington, DC: 19 March 1996, 13.

[9] Droddy.

[10] Tamara M. Smith, "Mine Countermeasures Historical Perspective," in Proceedings of the Autonomous Vehicles in Mine Countermeasures Symposium, ed. Albert Bottoms, James Eagle, Howard Bayless (Monterey: 1995), 3-3.

[11] Ibid., 3-4.

[12] Ibid.

[13] Ibid., 3-5.

[14] Ibid.

[15] Ibid.

[16] Commander in Chief U.S. Pacific Fleet, "Interim Evaluation Report No. 1, Combat Operations Sections, Mine Warfare," Korean War U.S. Pacific Fleet Operations, (Operational Archives Naval Historical Center, Washington Naval Yard: 1950), 1078.

[17] Smith, 3-6.

[18] Ibid.

[19] Commander in Chief U.S. Pacific Fleet, 1095.

[20] Ibid.

[21] Smith, 3-6.

[22] Ibid., 3-7.

[23] Peter P. Passarelli and others, Desert Storm Reconstruction Report Vol. IV: Mine Countermeasures, CRM 91-180 (Center for Naval Analyses, Alexandria, VA: 1991), 2-2.

[24] Peter P. Perla, Desert Storm Reconstruction Report Vol. I: Summary, CRM 91-219 (Center for Naval Analyses, Alexandria, VA: 1995), 91.

[25] Passarelli and others, C-1

[26] Scott C. Truver, "Mines of August: An International Whodunit," U.S. Naval Institute Proceedings (May 1985): 96.

[27] Joint Chiefs of Staff, Joint Doctrine for Multinational Operations, Joint Pub 3-16 (Washington, DC: 5 February 2000), I-3.

[28] Joint Chiefs of Staff, Theater Engagement Planning, CJCSM 3113.01. (Washington, DC: February 1998), A-1.

[29] Terry J. Pudas, "Preparing Future Coalition Commanders," Joint Force Quarterly (Winter 1993-1994): 45.

[30] "Call for Concerted Effort to End Piracy in Malucca Straits,"ABC Online, 16 October 2000, <http://www.abc.net.au/ra/asiapac/archive/ 2000/oct/raap-16oct2000-3.htm,> [31 January 2001]

[31] Pudas, 41.

Bibliography

Commander in Chief U.S. Pacific Fleet. "Interim Evaluation Report No. 1, Combat Operations Sections, Mine Warfare." Korean War U.S. Pacific Fleet Operations. Operational Archives Naval Historical Center, Washington Naval Yard: 1950.

Department of Defense. Conduct of the Persian Gulf War: An Interim Report. Washington, DC: 1991.

_____. Conduct of the Persian Gulf War: Final Report to Congress. Washington, DC: 1992.

Devers, Jacob L. "Major Problems Confronting a Theater Commander in Combined Operations." Military Review (October 1947): 3-15.

Droddy, Diane. <n2@cmwc.navy.smil.mil> "Unclas Fact and Figures" [Email to Jason Gilbert <gilbertj@nwc.navy.smil.mil>] 26 January 2001.

Hartmann, Gregory K. Weapons that Wait. Annapolis: Naval Institute Press, 1979

"History of the UN." About the United Nations/History. <http://www.un.org/aboutun/history.htm/> [21 December 2000].

Horne, Chuck. "What it Takes to Go 'Anytime, Anywhere,'" U.S. Naval Institute Proceedings (January 1998): 82-84.

Jane's Information Group Inc. Jane's Fighting Ships 2000-2001. Alexandria: 2001.

"The Korean War: Setting the Stage and Brief Overview." Factsheets. <http://korea50.army.mil/history/factsheets/overview.html/> [21 December 2000].

Passarelli, Ralph, Eleanor Baker, Kieth Costa, Lloyd Koenig, Vinh Nguyen, Costa Vatikiotis, H.E. Nelson, R.D. Turnage. Desert Storm Reconstruction Report Vol IV: Mine Countermeasures. CRM 91-180. Center for Naval Analyses. Alexandria, VA: 1991.

Perla, Peter P. Center for Naval Analyses. Desert Storm Reconstruction Report Vol. I: Summary. CRM 91-219. Alexandria, VA: 1995.

Pudas, Terry J. "Preparing Future Coalition Commanders," Joint Force Quarterly. (Winter 1993-1994): 40-46.

RisCassi, Robert W. "Principles of Coalition Warfare," Joint Force Quarterly. (Summer 1993): 58-71.

Smith, Tamara M. "Mine Countermeasures Historical Perspective," in Proceedings of the Autonomous Vehicles in Mine Countermeasures Symposium, edited by Albert Bottoms, James Eagle, Howard Bayless, 3-2 - 3-9. Monterey: 1995.

Truver, Scott C. "Mines of August: An International Whodunit," U.S. Naval Institute Proceedings. (May 1985): 95-117.

U.S. Congress. Senate. Committee on Armed Services on Expeditionary Warfare. Seapower FY97 Defense Authorization. Washington, DC: 19 March 1996.

U.S. Joint Chiefs of Staff. Doctrine for Joint Operations, Joint Pub 3-0. Washington, DC: 1 February 1995.

_____. Joint Doctrine for Multinational Operations, Joint Pub 3-16. Washington, DC: 5 February 2000.

_____. Theater Engagement Planning, CJCSM 3113.01. Washington, DC: February 1998.