

Strategic Transport Integrated Naval Group (Sting)

CSC 1997

Subject Area – Strategic Issues

EXECUTIVE SUMMARY

Title: STRATEGIC TRANSPORT INTEGRATED NAVAL GROUP (STING)

Author: Major David D. Cobert, United States Marine Corps

Thesis: To develop a Marine unique capability to rapidly deploy a division-sized MAGTF, for any given crisis situation, and upon entry into theater, immediately employ the force for offensive operations.

Background: The Marine Corps is currently exploring ways to employ forces in crisis situations using the emerging concepts of Operational Maneuver From The Sea (OMFTS), Over The Horizon (OTH) and Ship To Objective Maneuver (STOM). However, these concepts ride on the principle of employing Marine forces from traditional gray bottom amphibious ships or utilizing newly designed MPF ships in conjunction with the Mobile Offshore Base or MOB concept.

My proposal is to merge the capabilities of MPF and the envisioned capabilities of the MOB into a *single system*, thereby giving the Marine Corps the ability to rapidly and seamlessly deploy and employ ground and air forces with minimal *Ready To Operate (RTO)* time. The savings in RTO would significantly improve the ability of the NCA to act and/or react to emerging crisis situations with the prompt and decisive introduction of offensively oriented, combat ready forces into a given theater.

Recommendation: That the **STING** concept proposed in this document be explored for feasibility as a viable alternative to traditional amphibious shipping and operations and as an alternative to the MOB concept.

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 1997		2. REPORT TYPE		3. DATES COVERED 00-00-1997 to 00-00-1997	
4. TITLE AND SUBTITLE Strategic Transport Integrated Naval Group (Sting)				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Marine Corps War College, Marine Corps University, Marine Corps Combat Development Command, Quantico, VA, 22134-5067				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 19	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

INTRODUCTION

This paper introduces the reader to a future concept called the ***Strategic Transport Integrated Naval Group*** or ***STING***. The STING concept is similar to the Mobile Offshore Base or MOB concept currently under development at the Naval Surface Warfare Center at Carderock, Maryland ¹, at the CNO's N-85 Expeditionary Warfare Branch ² and at the Marine Corps' Combat Development Center ³. There are some important differences, however, in the STING concept vice the MOB. Those differences are the speed, flexibility and adaptability that the STING can bring to a crisis situation when coupled with the emerging concepts of Operational Maneuver from the Sea(OMFTS), Over The Horizon(OTH) and Ship to Objective Maneuver (STOM). While the technical issues involving STING have yet to be tested, it is this author's belief that STING in conjunction with OMFTS, OTH and STOM will represent the next significant step in the evolution of amphibious operations. That step involves melding the rapid deployment capability of the U.S. Army's 82d Airborne Division with the staying power of the Marine Corps' Maritime Prepositioned Forces in order to give this Nation a military response capability required for warfare in the 21st century.

"Because of the time gap between strategic cause and effect, the successful strategist must mold the strategic environment

from the outset and seize the initiative, thereby forcing others to react. Simply put, policymakers or strategists who passively wait for an opponent to act can make no strategic decision of their own, and eventually will be at the mercy of their adversary. *Thus, seizing, retaining, and exploiting the initiative allows one to set the strategic agenda, to shape the strategic environment in directions of one's choosing, and to force an opponent constantly to react to changing conditions that concomitantly inhibit his ability to regain the initiative.*

Moreover, maintaining initiative provides a number of advantages beyond the ability to force an opponent to conform to one's purpose and tempo. Controlling the pace of events permits a closer connection of ends, ways, and means. This, in turn, promotes more effective and more efficient implementation of policy. It provides increased freedom of action in formulating and adapting strategy to the evolving context."⁴

As a construct for understanding the STING concept, the following short story illustrates how operational initiative, using the STING as a combat multiplier, can have a significant effect on the strategic environment within international affairs.

January 10, 2010, the NCA just received an intelligence warning that the country of Ankar is massing forces along the Bengali-Ankar Border Zone (BABZ). In anticipation of possible contingency operations, the NCA ordered the Marine Corps' newest fleet of MPF Strategic Transport Integrated Naval Group (STING) ships into the region. CINCPAC has dispatched a CVBG into the region as well. Elements of the Army's XVIII Airborne Corps and an Air Force Tactical Air Wing have also been put on alert status. The I Marine Expeditionary Force has been issued a

warning order to prepare for possible contingency operations.

The Bengali-Ankar Border Zone (BABZ) is part of a long running dispute over resources and territory between Bengali to the north and Ankar to the south. The mineral-rich border zone is a mountainous 200 mile wide region which equally straddles the east-west international border between the two countries. The BABZ runs perpendicular to the south flowing Tiger River. Both sides claim the entire region based on ancestral and political grounds.

The Tiger River, long a source of economic wealth for both nations, stretches nearly the entire length of both countries and empties into a vast river delta to the south in Ankar. Bengali is in the process of constructing a large hydro-electric dam at the only feasible geographic location just north of the BABZ. Once completed, the dam will provide additional irrigation sources and will also provide a major source of power for further foreign investment and industrial development. The dam is 90% complete.

Unfortunately for Ankar, the Tiger River is also of major import to this country which relies on a network of streams and manmade canals to feed its farmlands. Additionally, the Tiger River is the only source of water for the majority of Ankar's population. If the Tiger River is dammed, major portions of Ankar's farmland will become deserts, further reducing

agricultural production in a country with little arable land.

Negotiations concerning the dispute have been on-going for the past five years in the U.N. General Assembly, ever since the Bengali Peoples' Coalition (BPC) first announced the dam project. Numerous Ankar opposition parties have put pressure on the newly elected Ankar Popular Government (APG) to stop the dam project. Bengali opposition parties have also threatened political anarchy if the BPC does not act immediately to protect the dam project.

On January 29th, Ankar military forces launched a violent and devastating attack north into the disputed region, forcing Bengali border forces to fight a delaying action. Ankar's intent is to seize and destroy the dam and construction site and force a shift of their border north of the construction site. This shift would place the bulk of the BABZ within Ankar's border.

Since Bengali's independence in 2005, the United States has been the defacto guarantor of Bengali sovereignty. The BPC therefore placed the majority of its national treasure into economic development vice military readiness, the Tiger River dam being the centerpiece of its development program. Bengali is counting on the Tiger River dam to give it an edge both politically and economically within the region. The loss or

destruction of the Tiger River dam would have a major negative impact on Bengali both economically and politically, setting the country back 10 or more years and possibly destabilizing the entire region. The BPC has issued a strong denunciation of the invasion and has called upon the United States for immediate military assistance.

Ankar forces have enough provisions to sustain offensive operations for 6 days, thereafter, resupply of its forces becomes tenuous. Ankar is counting on being able to accomplish its military objectives within 5 days, where upon the APG will seek a cessation of hostilities in order to negotiate with Bengali from a position of strength.

Intelligence sources indicate that although the Ankari forces are mostly footmobile with some truck mounted and some mechanized forces; if left unchecked, they could accomplish their objectives within 5-7 days. Within 24 hours of the opening of hostilities, I MEF ground combat units are airborne aboard C-17s on their way to link up with the MPF (STING) ships already on station 100 miles off the Ankar coast. Within 48 hours, I MEF ground and air forces will be engaged with Ankari military forces. Within 96 hours, I MEF forces will have forced a cessation in hostilities and will have caused the withdrawal of Ankari military forces out of the BABZ. Within 7 days, I MEF

forces will have turned over peace enforcement duties to lead elements of the Army's XVIII Airborne Corps and will have nearly completed the backload and retrograde of personnel and equipment from the BABZ AO.

The above fictionalized account of a international crisis centers on the need to resolve the conflict quickly with the introduction of U.S. military forces. In this scenario, time becomes the all important critical factor. Indeed, in a recent lecture at the Marine Corps Command and Staff College, a distinguished speaker noted that; "future forces will have to fight upon arrival...there will be no more six month buildup of forces such as we saw in Desert Shield and Desert Storm. Time is not only the critical factor, but [it] is also the implicit parameter in future conflicts." ⁵ In other words, the future of international conflict resolution through the application of military force is **TIME**. Time is such a factor in future conflicts, that the United States has spent billions of dollars developing global reach airlift and sealift assets and continues to build and maintain costly forward deployed naval, ground and air forces, although many of those assets have been relocated to the continental U.S.

Not only is time a factor in future international conflicts but unpredictability in the international scene and a declining military budget weighs heavily into how this Nation should plan for future conflicts. The convergence of these factors have caused the Department of Defense and the Services to think of innovative ways in which deploy and employ military forces.

The Marine Corps, with its long history of innovation, both technologically and doctrinally, stands again at the forefront of leading the other Services in the deployment and employment of military forces. The innovation of the MPF program, the V-22 and AAV and the doctrinal development of OMFTS and its twin sub-doctrines of Over The Horizon (OTH) and STOM points the way for employing our Navy and Marine forces in the future. What is missing, however, is the next step beyond traditional amphibious operations, i.e., beyond PERMA and its associated time in executing these operations.

The Marine Corps, as an institution, is still wedded to the idea that Marines, when not part of a forward deployed MEU(SOC) or an MPF, must embark aboard amphibious (gray bottom) shipping, steam to an Amphibious Objective Area (AOA), and conduct an assault. This is a slow process even under the best of circumstances. Even with the innovations of the V-22 and AAV,

the same basic principles of PERMA apply when dealing with the deployment of forces larger than a MEU(SOC). Although the Marine Corps developed and validated the concept of Maritime Prepositioned Force shipping as a means of speeding the deployment of Marine forces overseas, a concept the U.S. Army is quickly adopting for its own forces, a newer approach is needed. This is especially true when facing short response times in future conflicts or the unavailability of shorebased ports or airfields.

The development of the MOB has been touted as the answer to the problem of rapidly deploying and linking up forces at sea, which could conceptually reduce deployment and employment time. Although the concept is technically feasible, the MOB still falls short of the Marine Corps' real need. That need is the ability to **SEAMLESSLY** project forces into a fight **ANYWHERE** in the world as **RAPIDLY** as the U.S.Army's 82nd Airborne Division while at the same time giving that force the **SUSTAINMENT** and **FLEXIBILITY** associated with a traditional amphibious ships. The key to making a Marine force rapid, powerful and sustainable is the ability to drive down the **"Ready To Operate"(RT0)** time of that force as it transitions from deployment to employment; i.e., reduce RT0 from *flying time to fighting time*. **Time**, as mentioned before, **is** the critical factor. Time is what STING

gives to the CINC and to the NCA during a crisis.

The STING represents the relatively simple idea of merging the MOB concept with the traditional MPS ship. MPF (STING) ships are newer class merchant container ships which are part of the MPSRONS that are forward deployed in each of the world's major oceans--the Atlantic, the Pacific and the Indian. The main innovation is that all of the MPSRON ships have been modified with a lightweight and flexible folding flightdeck. This cantilevered flightdeck runs 500' in length, from the ship's superstructure to the bow, and 300' in width, when fully extended from its downward travel position.

When called upon, 12 MPF(STING) ships steam at 30+ knots toward a selected rendezvous site near the crisis location. Upon arriving in the crisis area, the ships extend their flightdecks and perform linking operations which marry them together, "pontoon-bridge" fashion, into a 3600' long by 500' wide flight deck, able to accommodate C-130 and C-17 transport aircraft and a variety of rotary wing aircraft to include the V-22. The flightdeck structure on each ship is composed of lightweight "smart materials" ⁶ which can sense shifts in stress and torque at the critical linking positions and can adjust accordingly. The entire length of flightdeck is further stabilized at zero degrees using a GPS-computer controlled hydraulic system which

adjusts the entire platform to the pitch, roll and yawl of each ship. The overall effect is similar to a rigid vehicle frame traveling over a bumpy road with 12 independent suspension wheels absorbing the shock.

Each ship is combat loaded with equipment for Marine mobile/mechanized units and contains two LCACs and an Air Cushioned Vehicle Landing Platform (ACVLAP)⁵, for rapid instream offload of rolling stock. Supplies, both bulk and liquid, are loaded in small, square, containerized, air-transportable pods stored underneath the flightdeck. They are readily accessible to the flightdeck or to the well deck of the ship. Among the 12 ship STING configuration, there is one TAH hospital ship and two TAVBs (one Marine and one Air Force). All three of these ships are configured with the 500' by 300' flightdeck which can link together with the other MPF(STING) ships.

The flightdeck itself is capable of handling take-offs and landings along the outer 250' wide by 3600' long runway portion of the flightdeck, along with simultaneous troop unloading operations along the inner 250' wide by 3600' long ramp area. A 500' by 300' maintenance area at the far end of the flight deck is reserved for strategic aircraft repair, which incidentally is part of the Air Force TAVB.

An open air troop tramway runs along the length of the flightdeck near the superstructures of each ship. Wide-aisle escalators, located near each ships' superstructure, allow easy access to the lower decks containing the vehicles and equipment. The STING ships also have modularized C2 components which give a CJTF and his staff a redundant capability to run operations from the MPF (STING).

Once the STING is formed, the ground elements of a division-sized MAGTF could deploy with minimal equipment i.e. personal equipment and a basic ammunition load, land on the STING flightdeck and immediately, depending on the location of the STING to the coastline, go into the assault using the STING as a **"regional airport"** transfer point. Ideally, without a coastal missile threat or a significant air threat, Marines would disembark from C-17 or C-130 transports, move to awaiting AAVs and/or standby for inbound V-22s/CH-53s and launch from the STING without it delinking. This, of course, would be the ideal situation, however, a more realistic scenario would be one in which the Marines, after offloading from strategic airlift, would stage temporarily below decks while the STING delinked and moved into dispersed attack positions in order to negate missile or aircraft threats.

The beauty of the STING system is its speed, flexibility and adaptability to the situation at hand. The STING can delink and reform at will depending on weather conditions, enemy threats or simply to provide various sized flightdeck configurations for different types of aircraft. This is not to say that the MOB cannot perform some of these functions; however, the MOB or a series of MOBs, as currently envisioned, must be prestaged in specific geographic locations, i.e., the most likely crisis areas, in order to make up for its slower speed. Furthermore, although the MOB can provide a 3000'- 4000' long by 300' wide runway, it still requires MPF ships to rendezvous with the structure in order to complete the marriage of personnel and equipment. This cannot be considered a seamless operation.

The MOB also represents a system which, aside from its estimated costs at between \$2.67 billion and \$4.14 billion, ⁷ could become an unused floating "white elephant," should the situation not require an offshore airfield. Even in the envisioned MOB configurations that depict warehoused equipment aboard each module, the size and seakeeping characteristics of the modules themselves negate their ability to "make port" to offload their cargo and equipment. This again severely reduces the flexibility of the system and almost invites an "if you build

it [the MOB], they will come" situation, whether or not it is really needed. Furthermore, although the MOB has been evaluated to withstand seastate 6 conditions and greater, the current and future LCACs and AAVs will only to operate in seastate 3.

MPF(STING) ships can, if the situation dictates, offload in port or in stream in the traditional manner and can backload and reconstitute forces from a seaport upon completion of the operation after it has delinked. Above seastate 3, amphibious operations would normally be suspended; therefore, STING ships can, as mentioned earlier, rapidly delink and seek better sea conditions within or outside the crisis area in order to perform its personnel and equipment marriage. Thereafter, the ships can again be dispatched and used as any amphibious ship would be used in an amphibious operations.

Given the Marine Corps' reputation for innovation, the next issue is; "how does STING fit into the over Naval warfighting structure?" What is envisioned is that the STING concept will eventually replace traditional amphibious gray-bottom ships and would, in fact, be the "new" class amphibious ship utilizing industry standard container ships and bulk carriers as the baseline ship.

The idea of using commercial ships adapted for amphibious use, vice constructing highly specialized Navy ships for that purpose, is not without precedence. Not only has this been a maritime tradition based on economies of scale, but the overall requirements of transporting military personnel and equipment has changed little since the time the Romans landed at Carthage. The difference, of course, is the rapidity of movement of modern vessels, the adaptation of aircraft for ship use and the ability to conduct forcible entry operations.

STING, as an integral part of a total Naval force which would be either already on station within the crisis location or deployed from CONUS, has that ability to rapidly deploy and employ large Marine combat forces into a crisis location in order to force a quick cessation of hostilities. The STING can provide these capabilities in the form of a "coup de main" in a crisis situation and, if needed, the "coup de grace" would come from follow-on heavy Army and Air Forces.

Current MPF forces, on the other hand, still apply the archaic principles of building up forces ashore in a "benign" environment, moving to contact with an enemy force, and blunting an onslaught. STING forces, however, can be inserted within 2 to 3 days of the onset of hostilities and can surprise an enemy

force by the sheer weight of numbers at any point within the battlespace. The age old adage that says mass, in terms of men and material, has a quality all its own will be as true for future conflicts as it has been for past conflicts. STING gives the Marine Corps that mass. STING also gives the Marine Corps time. ***Mass and time equals victory on the future battlefield.***

Notwithstanding the opening scenario, one need only to ask what the outcome could have been during the opening days of the Korean conflict in 1950 had a STING force been available to either blunt the Korean onslaught or conduct an Inchon landing earlier in the campaign. Would the Japanese Malayan campaign of WWII or the North Vietnamese Easter Offensive of 1975 have been as successful had the enemy contended with the rapid insertion of a U.S. STING force?

Finally, would the British have been forced to take such costly casualties, if they would have been able to rapidly introduce heavy ground and air forces into the Falklands using an MPF (STING) force to counter the Argentine buildup at Port Stanley? As one can see, the rapid introduction of forces into a conflict which can fight and sustain themselves upon arrival, utilizing a STING concept, could produce the greatest tactical,

operational and strategic advantage for any nation willing to employ it.

In sum, this concept attempts to demonstrate how, with some imagination and some innovative ways at looking at a particular problem, the Marine Corps could advance along the evolutionary track of amphibious operations. Although many technical aspects of STING must be worked out, operational issues concerning employment of this system are no more challenging than the challenges faced by the amphibious planners of the 1920s and 30s. Having the will to leap forward in bold and innovative moves vice taking incremental "baby steps" has always been the hallmark of the Marine Corps.

What is needed for the STING concept to work is the willingness to test it and find the ever present "holes" which accompany any new idea, and to develop workable solutions to solving the many challenges that the concept proposes. Given where the Marine Corps has been and where it must go, the challenges for developing a more rapid and seamless Marine force to better meet future CINC requirements must be explored and overcome, if the Marine Corps is to remain a viable entity now and in the future.

ENDNOTES

¹ Naval Sea Systems Command, Naval Surface Warfare Center, Carderock Division, Year in Review-1994 (Carderock, MD: GPO 1994) 13.

² Memorandum for the Director, Assessment Division, N-85 (Washington: Ser N853/4U650298 23 Nov 94).

³ Major Jay Sorg, USMC, MPF 2010 Concept Brief for CMC, Quantico, VA, 6 December 1995.

⁴ Johnsen, W.T., Johnson II, D.V., Kievit, J.O., Lovelace, Jr., D.C., Metz, S., The Principle of War in the 21st Century, Strategic Considerations, (The Strategic Studies Institute, U.S. Army War College Publication, Ft. Levenworth, KS 1 August 1995). 96.

⁵ Command and Staff College Lecture, 15 January 1996, Quantico, VA.

⁶ Curt Suplee, "Structures with a Sense of Self," The Washington Post 6 January 1996: A3.

⁷ N-85 MOB Brief (Washington: 21 November 1995) 9.

BIBLIOGRAPHY

Naval Sea Systems Command, Naval Surface Warfare Center, Carderock Division, Year in Review-1994. Carderock, MD: GPO 1994: 13.

Memorandum for the Director, Assessment Division, N-85, Mobile Offshore Base(MOB). Washington, DC: Ser N853/4U650298: 23 November 1994.

Sorg, Jay, Major, USMC, MPF 2010 Concept Brief for CMC. Quantico, VA: 6 December 1995.

Johnsen, W.T., Johnson II, D.V., Kievit, J.O., Lovelace, Jr., D.C., Metz, S., The Principle of War in the 21st Century, Strategic Considerations. The Strategic Studies Institute, U.S. Army War College Publication, Ft. Leavenworth, KS: 1 August 1995: 96.

Command and Staff College, Lecture. Quantico, VA: 15 January 1996.

Suplee, Curt, "Structures with a Sense of Self." The Washington Post: 6 January 1996: A3.

CNO, N-85, MOB Brief. Washington: 21 November 1995: 9.