

Naval Surface Fires Support—Not Just a Platform Problem

EWS 2004

Subject Area Strategic Issues

Report Documentation Page				Form Approved OMB No. 0704-0188	
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1. REPORT DATE 2004		2. REPORT TYPE		3. DATES COVERED 00-00-2004 to 00-00-2004	
4. TITLE AND SUBTITLE Naval Surface Fires Support?Not Just a Platform Problem				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) United States Marine Corps,Command and Staff College, Marine Corps University,2076 South Street, Marine Corps Combat Development Command,Quantico,VA,22134-5068				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 16	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Long gone are the days of the 16-inch guns of Iowa class battleships and the proficiency to match. From World War II through the early 1990s, the Iowa class battleships loomed off enemy shorelines with one goal in mind, effective and deadly fire support. Current Naval Surface Fire Support (NSFS) doctrine fails to meet the needs of the Marine Corps within the littoral battle space. Gun ranges are inadequate to support operations inland from the shoreline and present NSFS lacks the lethality to eliminate hardened enemy targets. Furthermore, current NSFS lacks the psychological effect and force projection that came hand in hand with the blazing off shore presence of an Iowa class battleship. The greatest deficiency may lie within the poor gunnery skills, lack of actual training, and the overall mindset of the navy's surface warfare officer (SWO) community as it pertains to the role of NSFS. The Navy must support the Marine Corps as it expands its strategic reach with concepts such as ship to objective maneuver (STOM) and operational maneuver from the sea (OMFTS). While the Marines transition from ship to shore, the Navy must re-commission the single-mission Iowa class battleship in order to fill the present fire support gap and eliminate the mindset that exists among the SWO community that NSFS is irrelevant.

NSFS REQUIREMENTS

In a letter written to the Chief of Naval Operations (CNO) by the Commanding Officer of the Marine Corps Combat Development Command, Lieutenant General Edward Hanlon Jr. identifies the required ranges that NSFS platforms must meet in order to support the Marine Air Ground Task Force (MAGTF) and its ever changing challenges of expeditionary operations effectively. The requirements are divided into three phases: the near-term, calling for a maximum range of 41 nautical miles (nm) within the 2004-05 timeframe, a mid-term goal of 63 nm projected for 2006-09, and a 97 nm far-term goal projected for 2010-2019.¹ These requirements reflect the need to support the United States Marine Corps' (USMC) capstone concept of expeditionary maneuver warfare. Innovative platforms such as the MV-22 Osprey and the expeditionary fighting vehicle (EFV) will give the Marine Corps the capability to push farther and faster into the littorals. In order to support future STS and STOM movements, NSFS must increase its range, lethality and ability to fulfill fire support requirements in order to prepare the landing areas and provide fire support during and throughout an amphibious operation.

¹ Lieutenant General Edward Hanlon Jr., *Naval Surface Fire Support Requirement for Expeditionary Maneuver Warfare* (Memo to the Chief of Naval Operations, 3900C428) 19 March 2002

CURRENT ISSUES

Presently, the Navy's only NSFS platform is the Mark 45, 5-inch gun system. Consisting of two versions, the existing 54-caliber mount and the modified 62-caliber mount, these weapons have the capability to fire twenty rounds per minute with maximum ranges of 13 nm and 20nm respectively.² Both ranges fall well below the Marine Corps' near-term requirements identified by Lieutenant General Hanlon. With the current limited ranges, NSFS war ships would need to position closer to hostile littorals, putting war vessels at great risk to mines and placing themselves far within range of enemy surface missiles. Rightfully so, the Navy is not willing to accept these risks, ultimately nullifying their ability to provide relevant NSFS. However, even in a permissive environment free from the mine or missile threat, the problem of sustainment and lethality still exists. In a Marine Corps issues paper written by Captain B.E. Mills, "Though 5-inch guns can be accurate to suppress targets, ships with 5-inch guns have a limited supply of ammunition that can be depleted quickly in a few dozen fire missions. Moreover, when 5-inch rounds do hit, they cannot provide the punch to

² A.D. Baker, III, *The Naval Institute Guide Combat Fleets of the World, 1998-1999*, Annapolis, MD: Naval Institute Press, 1998

intimidate the enemy and eliminate large bunkers and armored vehicles.”³ As to the reliability of the 5/54-weapon system, the author of this work can attest to the unpredictability of both the 5/54 and 5/62 gun systems. As the qualifying authority for all 2nd Fleet NSFS war ships, he found there to be reoccurring weapon system failures and mechanical casualties associated with the Mark 45 platform.⁴ In a time of combat, these system failures and casualties would unquestionably cost the lives of many American service men relying on NSFS to augment there fire power.

The Mark 45 weapon system is incapable of supporting the Marine Corps’ near, mid or far-term goals of NSFS, and must be replaced with a platform that can offer ample fire support within the littoral battle space.

THE MINDSET

The Navy and Marine Corps do not share the same concerns in regard to how and when NSFS should be employed. The Marine Corps is seeking to reincorporate a necessary fire support platform that can support Marines throughout an amphibious landing and that can reinforce the vital concept of combined arms farther inland throughout the littorals.

³ B.E. Mills, *Subject Area Strategic Issues: Naval Surface Fire Support; A solution at hand* (Expeditionary Warfare School) 21 February 2003.

⁴ The author of this work held the billets of Marine Liaison, NSFS Liaison and Range Control officer for the Naval training range on Vieques, Puerto Rico from 2001-2003.

In contrast, there is a large group within the Navy's SWO community that lacks the knowledge or desire to employ NSFS in this manner.

Current Naval warships are multi-mission platforms. These ships hold the capability to fire several types of rockets and missiles, with the most famous being the highly touted Tomahawk Cruise missile. Although these other weapons certainly have their place within the Navy/Marine Corps arsenal and have proven to be extremely useful, they are not the answer to NSFS. The sentiment among the SWO community as it relates to NSFS varies greatly from that of the Marine Corps'. There are many within the Surface warfare community that believe that forcible entry from the sea such as amphibious landings, are a thing of the past, thus the need to support marines with NSFS during operations in the littoral environment no longer exists. With their missile and air support capabilities, there are those with in the Navy and Marine Corps that feel that Naval Air support can compensate for the lack of adequate NSFS. According to Armed Forces Journalist Tracy Ralphs, "Regardless of aircraft availability, the ability of aircraft to equal or sustain the explosive payloads that can be delivered by 16 inch Naval Guns is lacking."⁵ A bombardment rate comparison conducted by U.S. Army Airborne Journalist William Stearman states, "within range

⁵ Tracy Ralphs, *Where Are The Battleships?*(Armed Forces Journal International

of its guns, the battleship can in one hour lay down 56 times the tons delivered from a carrier.⁶ The fact that the effective use of NSFS would decrease the number of aircraft placed in harms way coupled with the reality that aircraft are not an all weather weapon system puts rest to the idea that air support is not a viable replacement for NSFS. However, there are those in the Navy and Marine Corps that are blind to these facts and continue to disregard the need to provide NSFS in support of operations inland from the shoreline. The feeling among the SWO community is that NSFS platforms are just another tool that ships can use to defend themselves from enemy vessels. Therefore, the sense of urgency placed upon the training and enhancement of NSFS to meet the Marine Corps's needs is nonexistent.

Until 2003, the Navy's primary east coast training area for NSFS existed on the Puerto Rican island of Vieques. East coast NSFS shooters deployed to the Puerto Rican Operating Area (PROA) once a year to conduct NSFS training. Individual ship's company NSFS teams would participate in a one-week classroom NSFS training course two weeks prior to transiting to the PROA for NSFS qualifications. In theory, NSFS shooters spent two weeks out of the year focusing on NSFS. The results spoke for

⁶ William Stearman, *KEEP BATTLESHIP ADVANTAGE*, <http://www.geocities.com/equipmentshop/battleships.htm> (20 February 2004)

themselves. This author found that 75% of all ships on the east coast were insufficiently proficient in their mastery of NSFS. In fact, only a handful of NSFS capable warships scored a 95% or higher on their qualifying evaluation. Ships consistently missed timelines and held initial salvo errors greater than 300 meters. Constant delays as a result of a poor knowledge base as well as navigational issues added up to hundreds of hours of wasted range time per year. With the already inadequate training time spent on NSFS skills, if the Navy were serious about improving the quality of NSFS support, one would think it would allot increased range time for its NSFS warships. In contrast, the Navy has since altogether ceased use of the Vieques training range, without planning an adequate replacement for future NSFS training.⁴ The combination of an inadequate NSFS platform, a poor knowledge base, and the non-expeditionary mindset, is the reason why the Marine Corps contains a large fire support gap during amphibious operations.

Wrong Answers

In response to the Marine Corps' need for a NSFS overhaul, the Navy has offered two solutions, the Extended Range Guided Munition (ERGM) and the Advanced Gun System (AGS).

⁴ Author's personal experience

ERGM incorporates the highly touted technology of Global Positioning Systems (GPS) and does not require the need to procure a new weapon system. It will be fired from the updated Mark 45 5-inch/62-caliber gun system that is currently being phased into all NSFS war ships within the Navy. It is advertised to be accurate within twenty meters with a maximum effective range of 63-nm. There are several reasons why ERGM is not now and never will be the answer to NSFS:

1. ERGM's trajectory will take it to altitudes upward to 80,000 feet before acquiring its target through the use of GPS technology. With all the Friendly carrier air assets within its Area of Operation (AO), air space coordination will become extremely difficult.
2. Perhaps ERGM's biggest down fall is it's time of flight. Responsive fire support with any indirect fire support platform rarely exceeds two minutes; ERGM will hold time of flights in relation to a 63-nm maximum range of upwards to eight minutes. The indirect fire support concept relies on the massing of its munitions at the same time and place. By the time an adequate number of ERGMs are air born and ready to engage, more than 8 minutes will have surpassed from request to delivery of NSFS. Is a commander supposed to fire ERGMs blindly, with the hopes that a target will appear 8 minutes later, or do we expect the target to

remain stationary for 8 minutes in order to comply with the ERGM's time of flight? That is unacceptable.⁵

3. Because ERGM uses GPS technology to acquire a more precise target hit, but its very nature it is vulnerable to GPS jamming. Once its signal has been scrambled, where is that round to go?

4. Finally, when all is said and done, the ERGM round is still a 5-inch munition, and continues to lack the punch needed to achieve the desired effects on the target.

The ERGM is scheduled to be fielded within the NSFS platforms of the navy by the year 2005, but unless these issues are solved, it will ultimately be a failure towards meeting the needs of the Marine Corps' NSFS requirements.

The Advanced Gun System (AGS) will consist of a 155mm howitzer type weapon system with the capacity to fire 12 rounds per minute at a range of 115 nm.⁷ Unlike the single gun ships of the Arleigh Burke class ships, the AGS will be employed in pairs. Also in contrast to the modern Arleigh Burke class ships, the AGS plans for an accompanying magazine storage with the capacity to store up to 750 rounds per weapon system.⁷ On paper the AGS sounds like the answer to the Marine Corps' prayers. However, the AGS is planned to be

⁵ Ralphs, 48.

⁷ *Advanced Gun System*: United Defense Website, Products. (January 16 2004)

⁷ United Defense Website, Products.

incorporated with the Navy's newest innovation of warship destroyers, the DDX. Unfortunately, the DDX is not scheduled to be active until 2015. The Mark-45 platform fails to meet the Marine Corps' near term goal. The ERGM and AGS are unproven systems hoping to answer the call for the Corps' mid and far term goals. "The status of the ERGM and AGS programs are both very shaky; neither have met timelines or test results thus far"⁸. With the ever-increasing possibilities of forcible entry from the sea, in support of the war on terror, the Marine Corps will have to wait another eleven years for a seemingly adequate answer to its NSFS vacancy.

The Answer

Sitting mothballed in Rhode Island and Virginia is the answer to the NSFS platform. The system that can meet the Marine Corps' near and mid term goals, and with existing extended range research to meet the far term goal; the Iowa Class Battleship should be reinstated to active duty as the primary NSFS platform. Its 16 and 5 inch guns are capable of destroying any sized bunker facility as well as any armored threat that exist in the world today. "A battleship's guns can, in one half hour, accurately lay down tonnage of high explosives

⁸ Tracey R. Ralphs, "Tactically Responsive Firepower", Military Review, July/August 2001, <http://www.geocities.com/equiptmentshop/battleships.htm> (3 February 2004)

equal to that delivered by 15 x B-2 sorties."⁶ As apposed to the smaller multi mission destroyers and cruisers, the Iowa class battleship can concentrate on one aspect of warfare, NSFS. It is Tomahawk capable, which also makes it the perfect fit for the Navy/Marine Corps' Expeditionary Strike Group (ESG) concept. The battleship is a floating arsenal. The strength and defensive capabilities are unmatched by any Naval vessel today with the exception of the Aircraft Carrier. Its speed ranks up with the fastest warships currently in the naval fleets. At times the battleship's mere presence can display enormous political strength. The physiological effect an Iowa class battleship wields through presents alone is matched only by the aircraft carrier. "I am absolutely convinced that a battleship stationed off Kuwait in July 1990, and our declared readiness to use it, could well have discouraged Iraq from attacking, sparing us the enormously costly Persian Gulf war."⁶

The Navy's justifications for not reactivating the battleships pertain to cost and manpower. The costs to reactivate, modernize and maintain both the USS Iowa and USS Wisconsin over the next 10 years would reach upward to \$2 billion. However, weighted against the \$4.5 billion that will be poured into the ERGM development over the next 20 years, once

⁶ Stearman, 3

⁶ Stearman, 2

again justifies the need for the return of the Iowa class.⁵ The navy will be decommissioning several ships in the attempt to reduce its numbers by 1,900 personnel. The reduction in numbers can be used to man at least half the number required to man a two battleships, so the manpower issue is partially solved.⁸

The tradition and prestige of serving on a legendary battleship may improve the NSFS skill set and fervor of the SWO community, but that is not the complete answer. Dedicating the a battleship to each coast in support off Amphibious Readiness Groups (ARG) or ESGs, with the sole mission of supporting amphibious and follow on missions for the Marine Corps should be the first step. With its dedicated mission, adequate training opportunities, and perhaps the incorporation of Marine Gunnery experts within the NSFS teams, the quality of NSFS support and Naval skill sets would increase dramatically. The establishment of a unit turnover, similar to the Marine Corps' Unit Deployment Program will facilitate the continuous readiness and availability for support of the Iowa class battleships.

Conclusion

It is apparent to the Marine Corps that during a time when increased readiness and probability of forcible entry from the sea, that there is now and for at least the next eleven years a

⁵ Ralphs. 52

⁸ Ralphs, 9

crucial gap in amphibious fire support. As long as there is an irrelevant mentality and NSFS platform equivalent, NSFS will remain useless to the Marine Corps. The need to bring back the proper NSFS platform and the focus on the skill set to match is now. The reactivation of an Iowa class battleship per coast is the answer to the NSFS problem, and essential to fill the fire support void during forcible entry from the sea and support within the littorals.

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Naval Surface Fire Support: Not Just a Platform Problem
EWS Contemporary Issues Paper
Submitted by Captain Rene Torres
To
Major Impellitteri, CG 8
February 2004