FLEET INTELLIGENCE ADAPTIVE FORCE CONCEPT

Commander (Navy) Cornel TĂNĂSESCU, MSc

Romanian Navy/ 56ᵗʰ Frigate Flotilla/ Constanta/ Romania

Abstract: The main purpose of intelligence is demonstrated as being outstanding in the naval organization and demeaning to the interests of our nation. Its preservation was contingent upon variables which, throughout this stage, were neither constant nor constantly recognized. By analyzing particular naval operations and discussing the strategic, operational and tactical fields of intelligence, it seeks to clear up the impact of intelligence on naval warfare from all times. In so doing it makes known the place of intelligence in the naval olden times. The article is not about history, but fairly a discursive study of those aspects considered the most important for the future of the Navy considered acting in a challenging environment. Naval intelligence aim today is to provide the best possible information available from all warfare sources. In a changing environment, technologically, scientifically and politically, it is a rising need to create within the Navy an organization which may well collect a stockpile of basic accurate data, to keep well up to date, with particular focus on recent developments which might impose on the naval and national interests.

Key words: Navy, intelligence, network centric warfare, fleet, information dominance.

1.Introduction

World War I brought the necessity for an operational intelligence organization, with the main concern of locating, identifying and deducing the goals of foremost German fighter units. Knowledge in war revealed the requirement for a clear explanation of the connection between operation branch and naval information branch. The employ of radio intelligence and cryptanalysis offered to naval intelligence division an enormous operational achievement. In the inter war stage we could see a decline of naval intelligence activities. World War II showed to us a new start-up with more structured activities and a wide panel of data gathered. The expansion of this organization revealed the increasing importance attached to intelligence in shaping the outcome of war at maritime operations. As an example of those times, as a doctrine and an organization, naval intelligence had to struggle for its place within the hierarchy of organizations that composed all modern navies.

There was nothing astonishingly new about collecting information for actual or possible enemies. Admiral Lord Nelson used intelligence information during the Trafalgar campaign. He and his eighteenth century forerunners realized the need for constant and opportune data relating to the activities and probable intentions of the opponents and the strengths and potential of his force.

Though, in the pre-modern war time, the sea commander could only gain such important information when he was going into a port or a fast frigate located him. In the same way naval authorities ashore had no awareness of operational environment, because of lack of reliable communications means. Still in the instantaneous operational

environment higher-ranking officers afloat were similarly reduced, since they were not capable to put into effect TACON outside the limits of visibility.

The thought that information is vital for maritime operations is not new-fangled, warships at sea have been contributing to a common picture more wide distances for hundreds of years. Certainly, network centric warfare (NCW) was what the Admiral Sir John Jellicoe from the Royal Navy was seeking to attain at the Battle of Jutland in 1916. The so called 'Grand Fleet Battle Orders' structure of centralized control was intended to manage fleet shoot, and therefore pertain maximum effect upon the opponent. To accomplish this coordination, the arrangement relied upon the velocity and precision of the signal communication system. Nevertheless, when the signal system (or network) failed, it undermined synchronized (or centric) navy tactics and fire power. The significant point to remind is that information distribution in networks is not new. Nonetheless, the approach wherein technology is being used as ways to get the precise ends is new.

With the beginning of wireless telegraphy, and the later sudden increase of communication technology, the outcome and role of intelligence changed consequently. It was a time-consuming process whereby it became recognized that commanders at sea ought to be done with as much intelligence as realistic and given wide-ranging directives, but left with the individual right and conscientiousness to build the needed tactical decisions in the perception of their understanding and interpretation of the current situation.

It is now essential to go to a phase away from this which covers the more delicate issues of the economic, community, environmental, historical and political variables that can relate to a foe at sea, and additionally an positive reception of his habits, tactics and doctrines that facilitate towards an thoughtful of his naval organization and function, and the position of this inside the wider political background, as well as the expectedness of the character of a potential war at sea, and the coverage to which one can anticipate to break the enemy's determination to oppose, or in certain conditions his response to the true danger of escalation.

Intelligence can not at all be a foolproof guide. At no time in the past has the course of a war been accurately predicted. Some factors and variables remain too complex and their inter relationship too subtle to gauge. No computer, analyzing intelligence information could have precisely weighed the consequence of an insubstantial such as the enemy's offensive character in naval warfare all through this period, even though such intelligence appreciation were gained and proved extremely important.

Naval intelligence raised out of its early limitations and turned into allied to the entire complex of major political assessment making in the field of foreign and defense strategy, and their connection with economic.

2. Network centric warfare concept for maritime operations

In the most recent years, the skill of maritime forces to project supremacy on shore from the littoral has turn into a strategic assignment of escalating importance. In reaction to this and further evolving strategic responsibilities, Navy has been undergoing what it has turn out to be known as a maritime force change.

The leading paths for maritime force change were in the beginning trying to obtain advantage of new information technology, now personified in NCW. Yet, this change has also more and more aimed at achieving reasonable fleets that can gather surfacing strategic tasks during the peacetime or crisis phase. The endeavor is to cover a sort of balanced capabilities, counting mine warfare, force protection and surveillance, which can rally

predictable or asymmetric threats for the naval environment, and so increase and maintain sea control or sea supremacy. Nonetheless, it is about information management concept throughout NCW that has develop into the identified objective of transformation for most of the navies, for it gives the ready for action up to date tools or paths to attain the ends.

Reaching command of the sea theatre is the critical concern of naval warfare strategy, and the means of gaining that authority, in particular sea control or sea denial, has been the centre of gravity of maritime theorists for over a century. Nevertheless, over the past ten years we might have seen a cycle of new concepts, several technologically based, which have been challenging for awareness in military and naval strategy. Theory such as maritime force change, Network Centric Warfare (NCW) and Effects Based Operations (EBO) has been updated maritime operations, maybe approaching aside the well known theories. Knowledgeable theorists frequently advise us that these concepts, mainly the technologically based ones, are supposed to not become ends in themselves.

There has been a large amount of papers written about Network Centric Warfare (NCW), and most of the spotlight has been on the utilization of technological progress in sensor equipments, communications, data processing systems and precision-guided munitions. In fact, NCW is more than just technology. It means to merge doctrine, instruction and technology to handle information more effectively. The principle belief is that networking develops information sharing, which increases common situational awareness, which in turn boost the speed of command chain decision and finally increases mission success to accomplish the outcome ordered.

Looking back, one analyst praises part of Admiral Lord Nelson's triumph at the 1805 Battle of Trafalgar to an improvised NCW. It seems that, Nelson's NCW was not regarding fast data and information swap, but concerning shared common understanding. Over many years of fighting actions, a network of collective understanding had been build up among Nelson and his commander's onboard ships. Therefore at Trafalgar, Nelson was convinced that every one of his commanders would recognize the developing situation (based on information) in the same manner, and as a result would have common situational consciousness. Additionally, Admiral Lord Nelson was equally confident that his commanders understood his target, and so, with no supplementary direction, would use weaknesses inside the enemy line and carry out reciprocally helpful actions. This is a typical illustration that tells again us that NCW is more than some aspects about technology; it is about common understanding and decision-making processes.

In the end it is not about possessing information or a transformed one, reasonable maritime force, but having the conditions to do somewhat useful about it in chase of the ends. The connection among means and the results is conducted by maritime strategy. For example, networking of isolated maritime forces can be of large advantage as a means to make possible sea control or sea denial in compound littoral environment. In the same way, the equipment of weapons and platforms such as underwater devices might be a serious enabler for a lesser naval force that is aiming to accomplish its strategic results throughout blockade or fleet-in-being case strategy. While the conventional maritime theories might be tailored by such technical advance, they will not be essentially distorted.

2.1   Information dominance using NCW

We are beginning to notice the wide impact NCW the whole time for all modern navies around the world. As input technology building blocks are deployed, in nowadays, a single aircraft carrier acting in western Pacific, for example, sent 54 000 emails in one month, about half the quantity of all of the conventional message traffic that was sent in

western Pacific in the same period. That is an illustration of a very multifaceted outfit organizing itself from the bottom to up. At this moment it is the custom. Such capabilities facilitate a shift into the realm of speed of command. Questions diminish because ambiguity decreases, collegiality enhances, and timelines cut down.

Information is no longer restricted to an enabling function. Navy information in combat amplifies dynamic combat capabilities. Navy information as warfare delivers prolonged tactic space, new operational and strategic alternatives, asymmetric operational effects, and facility for leading control of the battle space. Information as a weapon will be used to control, deny, degrade, disrupt or destroy athwart the full sort of maritime and naval actions.

Information Dominance (ID) is the capacity to seize and control the information area when, where and however required for vital competitive gain across the range of Navy goals, objectives and missions. Information Dominance means liberty of action to maneuver and act (carry out offensive and defensive military actions, kinetically and non-kinetically) at the intersection of naval, information and cyberspace fields. At this meeting point, Navy exploits bottomless penetration, widen maneuver space and information benefit to bring war fighting alternatives and effects. To reach information dominance, the Navy has to fundamentally realign battle capabilities. We need a shifting from a Navy that is based on individual units managing their own electromagnetic scale, to fleets and battle forces cooperatively achieving command and control over the electromagnetic spectrum in an automated approach. This will involve to reshape our Navy starting with concepts, equipments, people management and specific training or battle space or environment management systems.

2.2   Information as a weapon in naval operations

Navy thought for information dominance and decision superiority covers and links four major interconnected understandings of the idea of information in warfare. A modern and up to date Navy will increasingly manage and maneuver in and throughout the information and cyberspace fields to accomplish operational effects sustaining naval missions and the national security framework. This framework is covering the achieving information dominance and decision supremacy for commanders and acting forces. The future fleet of a reliable Navy for next challenges depends on the capability to influence evolving technologies to include unmanned and remote sensors. Develop arrangement for information dominance engineering and gaining disciplines to sustain timely, affordable fielding and life cycle management of important enterprise services, information systems and information weapons. Network centric warfare operations provide new ways for attaining deep access required to distinguish patterns of performance, perceptions, and intentions and bottomless understanding of the environment.

The last objective of the Navy's accomplishment strategy should be to sustain the development of desired Cyberspace capabilities regularly throughout the fleet but with the long term vision of being compatible with the entire joint operations concept. The intention is that cyberspace operations will offer a comprehensive information environment of assessment tools, analytic tools, and ISR that will bear the full spectrum of naval operations, from combat operations, logistics to manning improvement.

The anticipation is that Cyberspace operations will make possible the use of electronics in providing precise intelligence and information that will help naval leadership at the strategic, operational and tactical levels tackle challenges. It potentially will do so by incorporating countless digital data resources and sensors and broadly dispersing the

results, a superior thoughtful of the common operating picture, and increasing the joint force commander skill to manage combat effects at the lowest achievable possible with the utmost impact.

According to US Navy Admiral Mullen, future naval operations will use innovative information superiority and detached networked force capabilities to:

a) Consider scale, tempo, and other aspects of change, by aggressively identifying aspects of change that have been neglected or dismissed;

b) Examine blurring of strategy, operation, and tactics related to how will we organize, train, and equip a future Navy to prevail;

c) Pay particular attention to how "command, control, and collaboration" must evolve;

d) Look at Navy culture and identify aspects that should be preserved, protected, and those that interfere with ability to see, recognize, and adapt to future challenges;

e) Identify cyber capabilities the future naval force brings to the joint operations.

There are more than a few aspects that will guide to a flourishing accomplishment of cyberspace capabilities within the fleet. Two of the most important are a unambiguous understanding of the terms coupled with a disciplined systems approach. Once terms are clarified, the completion continues in three stages based on criticality to achievement, task interdependence and time. Stage one is related to tasks critical to the successful implementation and adds to the basis. Stage two will include those tasks whose start is reliant on the output of previous phased tasks. The third stage contains those tasks whose start is reliant on the output of stage tasks one and two. Some critical responsibilities, contained in the base and the first two stages, have been identified as type to addressing the results, and these tasks will be monitored directly to guarantee performance.

The opening rounds of the upcoming conflicts in cyberspace have already been launched. Comparable to the Cold War, this will be a constant conflict, involving not a particular foe but multiple, from time to time anonymous adversaries. Brutal extremist and terrorist engagements, strategic competitors, regional opponents, and yet unlawful elements are determined to corrode the nation's finest information capabilities. Nowadays challenge is to preserve a crucial information advantage over enemies across an information-rigorous, multi-domain operating environment that keeps to enlarge daily in conditions of its capacity and complexity. Navy, consequently, has to recycle old structures and processes to develop opportunities in the Information Era and maintain and enlarge ready for action advantage in the information field. Achieving a new vision of Navy Information Dominance requires that has to get rid of long standing institutional and operational barriers that obstruct the full incorporation of operations and information. We must also get a holistic approach to the progress and integration of the sensors, networks, activities, and information professionals.

3. Conclusion

The background of military operations has shifted deeply since 1990. In a world of worldwide distributed networks, built upon progressively more spread information technologies, persons, non-state bodies and governments at the present carry out and distribute terabytes of data at the rate of light crosswise the world. Conventional boundaries among military and civilian infrastructures no longer subsist and point-to-point radio frequency (RF), earthly and satellite communications, RADAR, sensors, and control devices are quickly linked collectively into a complicated worldwide network of data providers and information end users.

FLEET INTELLIGENCE ADAPTIVE FORCE CONCEPT

Since our adversaries do not entirely run in the identical environment today, naval forces at this time possess exceptional opportunities to profile and control the combat space to get nationwide objectives. As our opponents turn out to be more competent, this exclusive skill will grind down and as a consequence, these similar capabilities create themselves a goal by these same adversaries. Most of the kinetic missiles are entirely incorporated into networks and are in the same core for Network Centric Warfare (NCW) battle actions or operations. Cyberspace is not just concerning the know-how. It is in the same weight about the broad ranging of human connections that take place inside it, and because of it. The accurate highlighting on characteristics the Navy is supposed to use obligation arrange in a line themselves with the joint concept.

The development of a worldwide dispersed information networks stressed us on aware of the confrontations to speed up the progress, operation and service of full-range of operations at the joint stage in order to accomplish Joint Concept as well as national or domestic constraints, in favor of Information Dominance in all steps of a military clash. At this time the individual proprietary means build it complex to support all the efforts.

A special and specific cyber warship or EW capabilities ships require to be designated and operational today and not to far from this time. A vision of such warships whose main task is the basement of the net to make available a subsequent strike facility can afford extended term prevention. As mentioned above, the naval forces offer a unique opportunity for providing a geographically independent second strike potential provided the fleet which does not go away on the assault using the similar devices already concessional on a nationwide level, if such ability turns out to be vital to employ.

The whole time of history, conflict has been about equally influencing one's adversary, and when needed, annihilating that opponent. There is a field for both theorists Sun Tzu and von Clausewitz in the information era.

The guarantee of outlook strategic and operational capacities comes up out of information dominance and judgment advantage is deep. The naval forces place on the shelf of a conversional uprising no less significant to our warfighting supremacy than the changeover from era of sail to steam, from frigates to aircraft carrier, from fossil coal to the beginning of nuclear propulsion. The inference for naval forces organization and the readiness service of information are related to centric warfighting capabilities is uniformly insightful, spanning all existing assignment zones. The main concern of nowadays naval forces is to lay down a comprehensible path to bring into line the Navy with the cyberwar and information operations or actions by setting a specialized structure or command both ashore or embarked in order to realize mixing of concepts, forces and capabilities and to encourage improvement inside. The naval forces track on this approaching thinking and the specific paths will lead to future necessities, structural design and the achieving plan to reach information time operational capabilities.

The technological support of cyberwar however, consents to instantaneous, multi nodule, communication on a worldwide level. The price of an assault has to be analyzed as an attack on the whole information network and dealing that is prepared on it and not just on ground forces.

As our possible opponents apply the similar knowledge and support of NCW tactics to their command and control and military hardware systems, information superiority will offer a smaller amount of non conventional or asymmetric returns than we at this time could have.

FLEET INTELLIGENCE ADAPTIVE FORCE CONCEPT

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