

SEA CONTROL BY THE INDIAN NAVY: A PRAGMATIC ASSESSMENT

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*Whosoever can hold the sea has command of everything.*¹

— Themistocles (524–460 B.C.)

Introduction

Throughout history, control of the sea has been a precursor to victory in war.² According to Alfred Thayer Mahan, “Control of the sea by maritime commerce and naval supremacy means predominant influence in the world... (and) is the chief among the merely material elements in the power and prosperity of nations”.³ Admiral Reason echoes similar views in his statement that ‘Sea control is absolutely necessary, the thing without which all other naval missions, and most national missions, precariously risk catastrophic failure.’⁴

Sea control, as a concept, has many diverse interpretations. Corbett had opined that command of the sea is one of those ringing phrases that dominates the imagination but confuses the intellect.⁵ Milan Vego, a renowned expert, observes that the US Navy has difficulty in properly understanding the true meaning of sea control and of its counterpart, sea denial.⁶

The Indian Maritime Doctrine defines sea control as a condition where one is able to use a defined sea area, for a defined period of time, for one’s own purposes and at the same time deny its use to the adversary.⁷

¹*Naval Doctrine Publication NDP 1: Naval Warfare (Washington DC: Department of the Navy, March 2010), 1. Referred as NDP 1.*

²*Ibid.*, 27.

³Geoffrey Till, *Seapower A Guide to the Twenty- First Century (New York: Routledge Taylor and Francis Group, 2013), 1.*

⁴*Ibid.*, 155.

⁵*Ibid.*, 144.

⁶Milan Vego, “Getting Sea Control Right,” *Proceedings U.S. Naval Institute, November 2013, 64.*

⁷*Integrated Headquarters Ministry of Defence (Navy), Indian Maritime Doctrine (Sivakasi: Standard*

Unravelling Sea Control

The inevitability of control of the sea is as old as maritime trade. Piracy manifested in near simultaneity with sea-borne trade and was only suppressed when large polities raised navies to put it down.⁸ Alexander used land forces to seize bases of navies of the Persian Empire.⁹ In the age of sail ships, British relied on overseas bases and blockade to defeat the enemy fleet. In 1914 at Jutland, the Grand Fleet and the High Sea Fleet engaged in a battle to contest control of sea that left the High Seas Fleet at best ‘a fleet in being’.¹⁰ Three decades later, World War II established importance of airpower in maritime operations. Post World War II, the Arab-Israeli conflicts saw proactive actions and use of technological asymmetry to control maritime domain in the littorals. During the Falkland War, every single British escort operating in Falkland was hit by bombs dropped by the Argentine Air Force.¹¹ More recently, the 2006 Lebanon War between Israel and Hezbollah was a struggle for littoral sea control within the context of a hybrid threat.¹²

At present, China is emerging as a serious challenge to the United States’ ability to administer the global commons. The Anti Access/ Area Denial (A2/ AD) strategy of China has forced the United States to work on a Sea Control Strategy: Air – Sea Battle (ASB).¹³ While the strategy and counter strategy continue to evolve, the edge would be retained by the side that has a lead in technology. The subsequent superiority gained at sea would invariably metamorphose into benefits ashore.¹⁴

⁸John Keegan, *Battle at Sea From Man of War to Submarine* (London: Pimlico, 2004), 4.

⁹John A. Warden, *The Air Campaign Planning for Combat* (Washington, DC: National Defence University Press, 1988), 10.

¹⁰Keegan, *op.cit.*, 131.

¹¹Captain Victor G. Addison Jr., U.S. Navy and Commander David Dominy, Royal Navy, “Got Sea Control”, *Proceedings U.S. Naval Institute March 2010*. Available at URL:

<http://www.usni.org/magazines/proceedings/2010-03/got-sea-control> (accessed 27 November 2013). The Paper lists three levels of sea control – unopposed, opposed and denied. Further this paper uses five parameters to analyse and subjectively establish whether sea control was established in a particular campaign – Falkland Wars and Israel- Hezbollah conflict of 2006 have been analysed. The Parameters used are: capacity, capability, information dominance, tactical readiness and manoeuvre space.

¹²*Ibid.*

¹³Till, *op.cit.*, 331.

¹⁴Arjun Subramanian, “The Access- Anti Access Game in East Asia,” *Defence and Diplomacy Volume 3 No 1 (Oct – Dec 2013)*, 99.

Narrowly defined, command of the sea was understood to be nothing more than command of sea routes.¹⁵ However, the Force Commander usually has an objective of establishing sea control over a specific area in order to directly accomplish strategic objectives (secure merchant routes), allow transition to follow-on phases, or provide a base of operations to project power from the sea.¹⁶ However, the command of the sea is essentially relative and amongst the *relativities of command are time, place, extent of use, strategic consequence and necessity*.¹⁷ Consequently, an adversary would always have some maritime possibilities.¹⁸ These maritime possibilities (sea denial) would essentially remain defensive at the strategic level. The weaker side, however, may transition to offensive at the operational and tactical levels.¹⁹ This needs to be factored by the dominant side aspiring to secure sea control.

Securing Sea Control

A nation may aim to achieve general/ local or permanent/ temporary sea control depending on the tactical/ operational considerations. Milan Vego classifies the main methods to secure sea control as destruction and/ or containment of the enemy's naval and/ or land based air forces, weakening the enemy's naval forces overtime, seizing control of choke points and capturing the enemy's naval or air basing areas.²⁰ British naval historian Geoffrey Till classifies methods to secure sea control as a close and decisive battle, 'fleet in being' strategy and fleet blockade.²¹ The methods to secure sea control would largely be governed by geography – open sea or littoral environment.

Operations in blue waters require forces capable of remaining on station for extended periods largely unrestricted by sea state and with logistics capability

¹⁵Vego, *loc.cit.*

¹⁶Navy Warfare Publication Navy Planning NWP 5-01 (Newport: Department of the Navy, January 2007), 140. Referred as NWP 5-01.

¹⁷Till, *op.cit.*, 146. The author briefly amplifies these relativities of command. He interestingly also points out that ability to command the sea may often depend on supremacy on land, rather than the other way round. He also makes a pertinent observation that command is not merely a prerequisite to, but actually an intrinsic part of a campaign to attack/defend maritime communications.

¹⁸*Ibid.*, 148.

¹⁹Vego, *loc.cit.*

²⁰Vego, *op.cit.*, 68.

²¹Till, *op.cit.*, 157. Previous version of the book had advocated four methods (*sortie control, chokepoint control, open area operations and local defence*) as enunciated by Admiral Stansfield and a possible fifth called *forward operations*

to sustain these forces indefinitely.²² Sea control operations in open environment predominantly involve only naval forces. On the contrary, littoral environment allows adversaries to apply multiple types of warfare and develop unexpected strategies tailored to the environment and the coastline.²³ Resultantly, sensors, weapons, and tactics developed to handle threats on the open ocean may be less appropriate in congested and archipelagic waters.²⁴ Another major distinction is that, in the complicated littoral sea-control environment, losses are not only possible, they are inevitable.²⁵

The navy historically has tended to view sea control as primarily, if not exclusively, a naval mission.²⁶ It is not an exclusive naval mission anymore, and a synergistic combined arms approach is inescapable, particularly in the littoral.²⁷ The US publication on Navy Planning NWP 5-01 offers a technique for a force facing a mission requiring sea control. It proposes to list enemy systems juxtaposed to the friendly capabilities as they apply to six elements of establishing sea control, namely, Surface, Air, Sub Surface, Adjacent Land, Space and Networks.²⁸ These listed elements are recognition of new challenges and inescapability of integration of national resources to achieve sea control.

Sea Control by the Indian Navy

Vijay Sakhuja uses the concept of '*Maritime Mandala*' to interpret India's strategic transactions. The immediate Mandala has China and Pakistan, the two contiguous states with whom India has been engaged in wars over boundary

²²NDP 1, *op.cit.*, 28

²³LCdr Fredrik B Borgman, "Small Ships Revival: from Cold War and guerrilla warfare tactics to highly capable force multipliers in littoral and expeditionary warfare dated 03 May 2010." Available at URL: www.dtic.mil/docs/citations/ADA525265, (accessed 27 November 13).

²⁴Christofer Waldenström, "Sea Control Through the Eyes of the Person Who Does It - A Theoretical Field Analysis," *Naval War College Review*, Winter 2013, Vol. 66, No. 1. The author proposes a mathematical model to link various variables like the field of safe travel, the minimum safety zone, the field of sensors, and the field of weapons to solve the sea-control task.

²⁵Captain Victor G. Addison Jr., *U.S. Navy and Commander David Dominy*, Royal Navy, *op.cit.*

²⁶Congressional Budget Office, *the Congress of the United States, Background paper: The U.S. Sea Control Mission: Forces, Capabilities and Requirements* (Washington: U.S. Government Printing Office 1977), 3. Available at URL: <https://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/.../77doc581.pdf> (accessed 16 November 2013).

²⁷*Naval Operations Concept 2010: Implementing the Maritime Strategy 2010* (Washington DC: Department of the Navy, March 2010), 56-57.

²⁸NWP 5-01, *op.cit.*, 139-142. Detailed description at Appendix D of the document provides method to undertake force comparison to assess relative combat power to decide 'what to do'.

disputes that remain unresolved.²⁹ In the maritime domain, only Pakistan would be both willing and able to contest control of Indian territorial waters over the short-term and even then, it would do so only in very limited circumstances. In the medium to long-term, as China's naval capabilities expand, India may confront another challenge in its home waters.³⁰

India's Maritime Military Strategy (2007) alludes to two possible ways that the Navy is likely to affect the outcome of a war – direct (to target the adversary's territory from the sea by the delivery of ordnance) and indirect (commodity denial). Further, it emphatically acknowledges that the indirect method of affecting a territorial conflict or war has limited uses, especially in a short duration conflict, and recognises that sea war now has to be gone through a shorter time frame using increased tempo of battle and information dominance.³¹ Consequently, the Indian Navy in order to achieve sea control needs to be proactive, maintain initiative and prevent the adversary from avoiding the battle. But first we need to answer the question: Why do we need sea control?

Power projection through land attack capability may not be sufficiently worthwhile to invest in sea control operations against Pakistan as similar effects may be achieved by land vectors. Thus, in the Indo-Pakistan context, sea control is best leveraged by providing another medium for the Army to conduct operations by landing forces ashore (if the Army requires it!). With regard to China, sea control in the IOR has no impact on the land battle. Economic strangulation is another possible 'end' but its impact in a short conflict would be minuscule.

The primacy of sea control missions in the Indian context, despite its doctrinal underpinning is, therefore contestable. At best, in the case of a prolonged conflict, sea control would allow credible power projection and maritime trade blockade (against Pakistan) and trade intervention (against China). In the case of a short conflict, achievable 'ends' through sea control are even less worthwhile. Notwithstanding these limited benefits against Pakistan and China, in most Out Of Area Contingencies (OOAC), sea control would continue to remain germane to military operations.

²⁹ Vijay Sakhujia, *Asian Maritime Power in the 21st Century- Strategic Transactions China, India and Southeast Asia* (New Delhi: Pentagon Press, 2012), 278.

³⁰ Toshi Yoshihara and James R. Homes, eds., *Asia Looks Seaward Power and Maritime Strategy* (New Delhi: Pentagon Press, 2009), 127.

³¹ *Integrated Headquarters Ministry of Defence (Navy), Freedom to Use the Sea: India's Maritime Military Strategy* (New Delhi: 2007), p. 100. Referred as *India's Maritime Military Strategy*.

With regard to our two likely adversaries, Pakistan brings with it complexities of fighting in a littoral environment, and China has created asymmetry, both in terms of numbers as well as technology, in its favour. Geography favours Pakistan as its sea lines of communication can be routed very close to its coast. China on the other hand has the option to re-route its trade through the southern hemisphere to stretch India's resources. Protecting own trade and ensuring safety of neutrals further add to the dynamics. Overall, trade warfare has inherent complexities and will not substantially impact the outcome of a short-duration conflict. Further, there are noticeable shortfalls in tackling subsurface and cyber challenges as well as defence against ballistic missiles. The PLA Navy could also deploy only SSNs in the IOR and avoid a 'big decisive battle'. On the other hand, the Indian Navy's ability to exert influence outside the IOR is suspect and limits the possibilities of engaging the PLA Navy. Overall, the existent capabilities of the Indian Navy fall short of the necessary combat potential to establish sea control and deserve a re-think. There is possibly a case for the Indian Navy to moderate its sea control aspirations.

WAY AHEAD

Doctrinal

Joint Doctrinal Approach. Given the complexities of achieving sea control in a littoral environment, it is important that the issue is addressed in joint doctrines as well as in individual service doctrines. Roles of maritime, air and land forces in establishing sea control needs proper articulation.

Promulgating Link Document. A document to ensure optimal implementation of the strategy outlined in the operational and perspective planning needs to be promulgated. This proposed document must bring in congruence by assimilating divergent views on strategy implementation.

Efficacy of Sea Control. The Indian Maritime Doctrine recognises that 'control' would need to provide adequate protection of action by reducing the degree of risk to acceptable levels, depending upon given operational parameters.³² Consequently, there is a need to establish various degrees of sea

³²*Indian Maritime Doctrine, loc.cit.*

control and associated criterion. Measures of Effectiveness need to be evolved to scientifically establish effectiveness of own operations and a more holistic assessment of risk to undertake other tasks.^{33 34} Further, operations analysis (or an equivalent system) must form the basis of tactics/ procedures to establish sea control. In this regard, an experiment on Sea Control Ship conducted by the US Navy in 1972 deserves mention.³⁵

Sea Control is not a Pre-requisite Anymore! Sea control has traditionally been considered a pre-requisite for other maritime operations and objectives, including power projection, SLOC protection, SLOC interdiction and amphibious operations.³⁶ Sea Control against a credible adversary may not be achievable in a very short duration and thus a shift in the thought process is required to undertake various tasks simultaneously rather than in a sequentially phased manner.³⁷ Operations need to be planned accordingly; bearing in mind that whilst maritime domain awareness is mostly an inevitable requirement to progress operations, sea control should not be considered a pre-requisite.

Operational

Inclusive Sea Control Strategy. This need is embedded in the Indian Maritime Military Strategy, wherein it is recognised that the all-arms concept is naturally applicable to pre-planned operations in geographically definable littoral areas.³⁸ Sea control operations certainly qualify in this context. There is a consequent need to strategise (ends, ways and means) for sea control missions adopting a combined arms approach.

³³NWP 5-01, *op.cit.*, 83 and 149-152. Measures of effectiveness are criterion used to assess changes in system behaviour, capability, or operational environment that is tied to measuring the attainment of an end state, achievement of an objective, or creation of an effect.

³⁴John M. Green, "Establishing System Measures of Effectiveness", Available at URL: www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA405408 (accessed 22 Nov 13). A brief theoretical framework for the process of developing measures of effectiveness is available.

³⁵Wayne P. Hughes Jr., "Operations Research, Vol. 50, No. 1, 50th Anniversary Issue (Jan. - Feb., 2002)," 103-111. Available at URL: <http://www.jstor.org/stable/3088457> (accessed 02 December 2013). USS Guam, a flat-topped amphibious ship, served as surrogate sea control ship. Ten days of intensive interactions between submarines, their target and the assorted screening units was undertaken illustrating a focus on careful planning and exercise reconstruction at the time.

³⁶Indian Maritime Doctrine, *loc.cit.*

³⁷India's Maritime Military Strategy, *op.cit.*, 108-111. The diagram 7.2 on page 111 illustrates phased operations without any timeline and possibility of simultaneity of these operations is not evident.

³⁸India's Maritime Military Strategy, *loc.cit.*

Command and Control. Single-service approaches to war fighting cannot be wished away immediately.³⁹ However, the struggle for sea control or denying control cannot be successful without full unity of command.⁴⁰ Ideally, all resources necessary for sea control operation need to be allocated to a single operational commander but given the concurrent requirements to conduct land and air operations, prioritising specific tasks would need a larger vision by the force commander. Accordingly, an Integrated Theatre Battle Concept that synergises all available resources to conduct a campaign is vital for effective conduct of sea control missions.

Operational Plans. The Indian Maritime Doctrine identifies two distinct types of planning – operational readiness and operational response planning.⁴¹ Given the short duration of likely conflicts, a proactive approach including surprise attacks (like Pearl Harbour) to destroy the enemy's fleet in harbour needs most careful consideration. It requires pre-hostilities actions like intelligence gathering, domain awareness and comprehensive preparation for conventional targeting as well as asymmetric attacks. These plans, if made in isolation, will not yield desired results as most actions would involve sister services as well as other national resources (cyber warfare, intelligence, etc). These competing requirements on resources necessitate operational plans to have a time-bound synchronisation matrix that includes all planned activities in the theatre.

Addressing Tactical and Technical Shortfalls. There are voids in combat capabilities that can severely impact the ability to establish sea control particularly in a short span of time. Mine Counter Measures, Anti Submarine Warfare, Long Range Strike Capability, Ballistic Missile Defence, Cyber Warfare, Space Warfare and Intelligence are a few of the areas that need attention.

Foreign Cooperation. Foreign cooperation is one viable means to address tactical and technical shortfalls. It also provides many avenues (like basing facilities, intelligence, covert/ overt support) to increase operational efficiency and may also open up new possibilities.

³⁹ *Air Headquarters, New Delhi, Basic Doctrine of the Indian Air Force, September 2012, 146.*

⁴⁰ *Vego, op.cit., 66.*

⁴¹ *Indian Maritime Doctrine, op.cit., 135-138.*

Improving Survivability. Given the density, accuracy and lethality of the possible weapons that can bear upon a ship, there is a need to find technical and tactical solutions to avoid and absorb damage, including likely damage below waterline caused by torpedoes or other underwater weapons.

Training

Training Curriculum. The need to institutionalise education of doctrine and strategy to all personnel cannot be overemphasised. Further, continuation of training throughout the career progression must be ensured.

Conduct of Exercises. There exists a need to exercise as one would fight. Major exercises need to be conducted as a theatre campaign with integrated involvement of the Army, Air Force and other national agencies. A Tri-Service exercise to execute war-plans on a periodic basis needs to be institutionalised.

Conclusion

Pakistan and China are the two potential credible adversaries with whom a limited conflict cannot be ruled out. Short duration conflicts place additional onus on the services to achieve military objectives swiftly. Hence, sea control operations need to evolve and align with existential realities of fighting high tempo, short duration sea battles. This evolution is lagging in the Indian Navy and present day capabilities fall short of sea control requirements. In any case, sea control can no longer be considered a purely naval mission. It will involve not only the three services, but other national agencies as well, for intelligence and to conduct operations in the cyber and space domains. An integrated theatre battle concept duly synchronised with other elements of national power deserves serious consideration.

In the end, it will be the 'ends' that sea control is expected to achieve which would determine its significance, relevance and allocation of resources. In the short-term, the Indian Navy needs to moderate its sea control aspirations and prepare to progress maritime operations 'in and from the contested seas'.

Primacy of achieving sea control prior to other operations needs to be accordingly reviewed. In the long-term, synergising doctrines, operations and training in a pragmatic manner can considerably enhance the sea control potential of the Indian Armed Forces. The Indian Navy, as the lead service must take cognisance of the issues highlighted earlier and chart the 'Way Ahead' to develop credible sea control capabilities, jointly and harmoniously with sister services and other national agencies, in keeping with the national aspirations of a growing regional power.



About the Author



Captain Sanjay Savhdeva was commissioned into the Indian Navy in July 1991 and is a specialist in Navigation and Direction (ND). His command appointments at sea include INS Astravahini, INS Nashak and INS Shardul. He has served in various operational, staff and training assignments that include Fleet Navigating Officer, Eastern Fleet, Staff Officer (ND) Indian Naval Work Up Team, instructor at ND School and Directing Staff at DSCC Wellington. On completion of NHCC 26, the officer has taken over as the Captain Work Up, Local Work Up Team (East), Visakhapatnam. The author can be reached at sanjay5470@hotmail.com