

‘SEA BASING’ IN SOUTH CHINA SEA: LESSONS FOR LITTORALS

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Abstract

Littoral features of the South China Sea (SCS) viz the islands, reefs and shoals are now heavily contested for claiming maritime rights and possession. The disputes, though longstanding, have gained new trigger due to overlapping claims and ambitions of the neighbouring littorals. ASEAN mediation and military muscle-flexing are moving parallelly in the region with no unified and agreeable consensus reached. The resources, lucrative energy, trade routes and above all international polarisation have made SCS a 'hotspot' in recent years. Its neighbours are now in an unprecedented race of island possession, building artificial islands and militarising it which this article refers as 'Sea Basing'. Reclaiming lands to turn the reefs into Sea Basing is now the bone of contention in SCS. The ongoing tension of South-East Asian archipelago also hints the future security challenges and complex regional dynamics. UNCLOS and emerging blue economy have made the small littorals sea-facing for economic emancipation. At the same time, littorals are now more concerned to safeguard own territorial rights while pursuing the national objectives through operational, constabulary and benign roles. The topic 'Sea Basing' covers the recent trends of island development, militarisation, also new structural innovations to monitor and respond to the crisis in SCS. The lessons of SCS dispute and approaches by the littorals thereby need to be examined holistically. The passage of this article also enables the author to cherish the memories of being trained in this archipelago, walking along the reefs as a young Navy officer and now having a near-sight of the escalating tension of SCS as a military diplomat.

Keywords: Sea Basing, artificial islands in SCS, land reclamation at sea, SCS dispute, UNCLOS, ASEAN Code of Conduct (COC), 9 Dash Line, forward sea base, littoral defense, Spratly, Paracel.

Introduction

South East (SE) Asian archipelago has many sea and littoral features viz offshore islands, coastal fringes, reefs, shoals etc. Colonial powers, as history speaks, entered through its littoral corridor of South China Sea (SCS), initially for trade and then for invasion and controlling the sea lanes. In different wars, many

such islands and features were used to project military power against the states with weak littoral defense. Maritime strategist Robert D. Kaplan termed SCS as the 'throat of global sea routes'. Connecting the east with the west. However, it is also labelled as the 'troubled waters'.¹ Due to disputed claims; some claims are historical; some emerged from UNCLOS, treaties and long possession. Most of its islands are now the epicenter of militarization, gunboat diplomacy and complex regional dynamics.² In this paper, the term 'Sea Basing' relates to the sea or littoral features which are contested for possession, rights and security. Such features, once ignored, are now considered vital; even the reefs are turned into fortress and habitats for strategic influence, claiming sea zones and ensuring seaward defense.

Sea Basing sounds synonymous to forward base, a wartime necessity for littorals. In peacetime, it can ensure vigilance, deter threats and meet Humanitarian Assistance and Disaster Relief (HADR) and Search and Rescue (SAR) etc. Today's Sea Basing faces colossal mandates to meet the military, constabulary and benign roles simultaneously. Nonetheless, it is an influencing tool if located geo-strategically. So, it is vital to study Sea Basing and see how it suits the future littorals as stated by USN Vice Admiral W. Moore, "*21st century Sea Basing will be our nation's asymmetric military advantage, contributing immeasurably to global peace, international stability, and war fighting effectiveness.*"³

Disputes of Sea Basing in SCS has two aspects, namely the disputed possession and the debate of legal status of the islands. The core disputes are longstanding but gained momentum after the Chinese '9 Dash Line' claim had jerked the littorals. SCS is now experiencing an unprecedented race of island possession, development of artificial islands and militarization. Neither the International Court of Arbitration nor ASEAN could find a consensus. Extra regional powers are concerned as the archipelago is vital for global security,

¹ R. D. Kaplan, "The South China Sea Is the Future of Conflict", *Foreign Policy*, 15 August 2011, Available at: <https://foreignpolicy.com/2011/08/15/the-south-china-sea-is-the-future-of-conflict/>, accessed on 22 March 2020.

² K. Chin Lin and A. V. Gertner, "Gunboat Diplomacy in the SCS: We're entering a new phase in political signalling by China and the US", 18 November 2015, Available at: <https://thediplomat.com/2015/11/gunboat-diplomacy-in-the-south-china-sea/>, accessed on 25 May 2020.

³ Vice Admiral C.W. Moore and Lt Gen E. Hanlon, "Concept of Employment for Current Sea-basing Capabilities", 29 June 2010, P.4, Available at: <https://apps.dtic.mil/dtic/tr/fulltext/u2/a531624.pdf>, accessed on 24 March 2019.

energy and trade. Meanwhile, military standoff, diplomatic tussle and polarization have become recurrent in the region. States are becoming militarily active, diplomatically vocal and legally persuasive regarding the possession, development and militarization of Sea Basing.

Basically, this is a secondary research of exploratory in nature. For research methodology, the paper depends on qualitative analysis through reviewing newspapers, online statistics and media articles. The paper mainly concentrates on what is presently happening in SCS in respect to Sea Basing while analyzing the debates, legal status and utilization of the sea features. Firstly, it draws some hypotheses on a predictable littoral scenario and gradual changes of Sea Basing concept. Thereafter, it discusses the current regional and international dynamics on Sea Basing in SCS. The paper has mostly focused on Spratly and Paracel islands to examine the recent trends of artificial island development and other initiatives taken. Finally, it recommends some lessons for the littorals.

Sea Basing - Hypothesis and Progression

Militarily Sea Basing is, *"Deployment, assembly, command projection, reconstitution, and reemployment of joint power from the sea without reliance on land bases within the operational area"*.⁴ Traditionally, this concept was more affiliated with amphibious operations using forward sea bases for marshalling, bunkering and power projection.⁵ Gradually, Sea Basing grew its significance in operational, humanitarian, economic and security perspective. Major Powers view the necessity of Sea Basing from its geo-strategic location and impetus. On the contrary, small littorals evaluate it on need versus cost-benefit analysis. Hence, today's Sea Basing is not limited to military use but is multifaceted, and thereby contested by regional and international interests. So, salient littoral hypothesis in future context can be made, viz:

- Major powers will interfere in regional littoral disputes while small littorals will focus on seaward defense for national security.
- International forums cannot give a unified solution to littoral disputes when claims are overlapping.

⁴ S. J. Tangredi, "Sea Basing - Concept, Issues, and Recommendations", Naval War College Review, Vol. 64, p2, 2011.

⁵ Ibid, p.2-3.

- UNCLOS will make littorals more sea facing but disputing in nature.
- Future peacetime littoral operations will demand a wide spectrum of strategic capacities.

Strategist Mahan in 18th century wanted the American policymakers to believe that *"America would be the safest if threats could be dealt far from own shores. That required not just a navy, but a forward-deployed navy"*.⁶ Hence, he prophesied the idea of forward-bases for trade and power, which England followed in expanding their colonies; the same did the Spaniards, French and the Dutch in different continents, including SE Asia. Another strategist Corbett in 19th century strongly advocated that *"any event at sea must influence the events on land as everything is decided on the land"*.⁷ This primarily prompted the expansionist theory amongst some major powers to use forward Sea Basing militarily during the world wars. Secondly, Corbett's perception vibrated the weak littorals to contest the strong adversaries by 'sea denial' where militarized Sea Basing can augment *forward defense-in-depth* to deny access to incoming threats.⁸ Today's concept of Sea Basing covers, *"the spectrum enabling personnel, material, and command to rapidly integrate, and be projected as a flexible force capable of undertaking both onshore and offshore operations. Such operations could range from humanitarian operations to conflict prevention or larger combat operations. It may serve as a staging point for joint as well as coalition forces"*.⁹ So, Sea Basing becomes an essential interlink in the national trilogy of security, rights and well-being.

⁶ B. J. Armstrong, "A New Sea Power Strategy: What Would Alfred Thayer Mahan Do?", US Naval War College, 18 July 2014; referring from the *Influence of Sea Power upon History: 1660–1783* by Alfred Thayer Mahan, published in 1890, Available at: <https://thestrategybridge.org/the-bridge/2014/7/18/a-new-sea-power-strategy-what-would-alfred-thayer-mahan-do>, accessed on April 2020.

⁷ Sir J. Corbett, "Principles of Maritime Strategy", *Classics of Sea Power*, 1911.

⁸ Malcolm Davis, "Shifting from the 'sea-air gap' toward 'forward defence in depth'", Australian Strategic Policy Institute, 12 June 2019, In evolving Indo-Pacific geo-strategic environment, the Australian policymakers consider a new doctrine of 'forward defence in depth'.

⁹ Ibid.

SCS –Mosaic of Maritime Contest

SCS disputes are critical due to its resources and strategic connectivity. Energy doubles the trouble as the proved, and probable reserve amounts 190 trillion cubic feet gas and 12 billion barrel oil, mostly in the disputed islands of SCS.¹⁰ The overlapping claims are also hampering the Blue Economy prospects of ‘Changwon Declaration’ signed by ten SE Asian littorals.¹¹ Besides, SCS is one of the top five world's most productive fishing zones¹² where more than 50% of the fishing vessels of the world ply.¹³ But as no demarcation is agreed upon, littorals



Figure 1: Sea features in dispute - SCS

¹⁰ Asia Maritime Transparency Initiatives, “South China Sea Energy Exploration and Development”, <https://amti.csis.org/south-china-sea-energy-exploration-and-development>, accessed on 18 May 2020.

¹¹ “Toward an Ocean Based Economy: Moving Ahead with Sustainable Development Strategy for the Seas of East Asia, Fourth Ministerial Forum”, Changwon Declaration, Korea, 2012.

¹² A. Gnanasagaran, “Fishy Business in the SCS”, ASEAN POST, 29 December 2019, Available at: <https://theaseanpost.com/article/fishy-business-south-china-sea>, accessed on 20 November 2020.

¹³ G.B Poling, “Illuminating the South China Sea’s Dark Fishing Fleets”, 2019, Available at: <https://ocean.csis.org/spotlights/illuminating-the-south-china-seas-dark-fishing-fleets>.

are not unified regionally. Historically, the ownership and sovereignty of Spratly and Paracel fell under different kingdoms, colonial powers and treaties. After the colonial rule, four international documents regarding the settlement of sovereignty viz the *San Francisco Treaty*, the *Cairo Declaration*, the *Potsdam Declaration* and the *Joint Communiqué between China and Japan* failed to generate any clarity regarding the ownership of Paracel and Spratly.¹⁴ During WWII, these islands were not claimed by any state when Japan militarily used them.¹⁵ Chinese claim of '11 Dash Line' by Kuomintang Government in 1947,¹⁶ was revised to '9 Dash Line' by the first Chinese Premier Zhou Enlai in 1949.¹⁷ It overlaps with the claims of Vietnam, Philippines, Malaysia, Brunei and Taiwan (Figure 1). Over the years, there being no accepted consensus, the littorals continued possession, reclaimed lands and built artificial extensions. For examples, Vietnam since 1980 reclaimed about 65,000 square metres land at West London reef and 21,000 square metres at Sand cay.¹⁸ Vietnam has a petition to rename SCS to 'SE Asia Sea' as it belonged to CHAMPA Kingdom (ancient Vietnam) till was named 'The South China Sea' during the Portuguese era in 16th century.¹⁹ Taiwan also reclaimed approximately 20,234 square metres in Itu Aba by 2015. Malaysia maintains possession in Swallow reef since 1983, in Mariveles and Ardasier reef since 1986, in Erica and Investigator shoal since 1999.²⁰ Another major contender Philippines also

¹⁴ T. L. Anh Nguyen, "Origin of the South China Sea Dispute", Territorial Dispute in the SCS, pp. 15-9 collected from "The South China Sea Dispute: Opportunities for ASEAN" by Commodore A. Rustandi, Centre for Defence and Strategic Studies, April 2016.

¹⁵ C. Chris, "Drawing the U-Shaped Line: China's Claim in the South China Sea, 1946–1974", *Modern China*, 42 (1): 2015.

¹⁶ Zhiguo Gao and Bing Bing Jia, "Nine-Dash Line in SCS: History, Status, and Implications", *US Journal of International Law*, January 2013, Available at: <https://doi.org/10.5305/amerjintelaw.107.1.0098>, accessed on 16 April 2020.

¹⁷ U. Granados, "Chinese Ocean Policies towards the SCS in a Transitional Period, 1946—1952", *China Review*, 6 (1), JSTOR 23462012, 2006.

¹⁸ D. Brunnstorm and B. Blanchard, "Images show Vietnam SCS reclamation, and China defends Own", REUTERS, May 2015, Available at: <https://www.reuters.com/article/us-southchinasea-vietnam-iduskbn0nt04820150508>, accessed on 3 June 2020.

¹⁹ K. Everington, "Vietnamese Petition – Calls for change of SCS to SE Asia Sea", *Taiwan News*, 26 July 2019, Available at: <https://www.taiwannews.com.tw/en/news/3752524>, accessed on 11 May 2020.

²⁰ A. David, "How Malaysia's five Naval Stations at Spratly were built", *New Straits Times*, 4 March 2019, Available at: <https://www.nst.com.my/news/nation/2019/03/465854/how-malysias-five-naval-stations-spratlys-were-built>, accessed on 18 May 2020.

reclaimed huge lands and won a verdict by Court of Arbitration in 2016 invalidating the Chinese claim.²¹ Without paying heed to it, China since 2015 reclaimed approximately 3,200 acres in Spratly alone, more land than all other littorals could collectively do in the past forty years.²² Although out of 130,000 km SCS coastline only 2800 km belongs to China²³, ASEAN states are apparently reluctant to antagonize China for economic dependency. However, protests are bubbling up gradually. In 2019, Indonesia triggered military standoff when the Chinese forces appeared in Indonesian waters off Natuna Island. The Philippines retaliated to Chinese hostile intent of pointing guns on their ship and decided boldly to extract oil from disputed Reed Bank claimed by China.²⁴ Vietnam appeared vocal against China for sinking their fishing vessel. Recently, militia fleets are also active in the SCS - Philippines deployed 240 militia vessel in October 2020, US estimates China to have 20000 militia vessels, also Vietnam having 46000 militias.²⁵ Such maritime irregular warfare is also a risky affair.²⁶ However, irrespective of justifications, all littorals are adopting almost the same approaches in the dispute:

²¹ S. W. Crispin, "Will Vietnam file an SCS Case against China?", *The Diplomat*, 3 August 2016, Available at: <https://thediplomat.com/2016/08/will-vietnam-file-a-south-china-sea-case-against-china>, accessed on 11 May 2020.

²² E. Elizabeth, "China's Maritime Disputes", Council on Foreign Relations presentation by director for Asia Studies, 2017, Available at: https://www.cfr.org/interactives/chinas-maritime-disputes#/chinas-maritime-disputes?cid=otr-marketing_use-china_sea_InfoGuide, accessed on 18 May 2020.

²³ *The Guardian*, "China has reclaimed 3,200 acres in the SCS", *Washington Press*, 13 May 2016, Available at: <https://www.theguardian.com/world/2016/may/13/pentagon-report-china-reclaimed-3200-acres-south-china-sea>, accessed on 18 May 2020.

²⁴ C. Vicedo, "Assessing China's Assertiveness at Commodore Reef", *The Diplomat*, 18 May 2020, Available at: <https://thediplomat.com/2020/05/assessing-chinas-assertiveness-at-commodore-reef>, accessed on 18 June 2020.

²⁵ Jim Gomez, "Philippines Says it will Defend Oil Search in Disputed Seas", *AP NEWS*, 16 October 2020, Available at: <https://apnews.com/article/south-china-sea-philippines-china-manila-rodrigo-duterte-816cd5f70eefdf000c0dec394c4d03e1>, accessed on 17 October 2020.

²⁶ J. Y. Kuek, "Indonesia, Global Maritime Fulcrum: Confronting Maritime Irregular Warfare in SCS", *SAIS Review*, 31 December 2019, Available at: <https://saisreview.org/indonesia-gmf-scs/>, accessed on 18 June 2020.

Military vis-a-vis State Approach: States are deploying military forces to establish footholds by security outposts in designated islands and undertake policing duties. Concurrently, states are continuing to build artificial islands, airfields, barracks and jetties etc. and also pursue to justify own claim using UNCLOS. If analyzed, the Chinese approach in SCS can be termed methodical, diplomatically steady avoiding the international frictions but building islands rapidly. Same way, Philippines, Vietnam, Malaysia are also active in the possession and developing islands, none are lagging behind.

Regional Exercise vis-a-vis Militarization: SCS is vital globally; the US maintains Freedom of Navigation (FON) to balance China, Russia ensures proxy presence, the US-led Quadrilateral Dialogue (QUAD) appears as 'Indo-Pacific NATO' stirring up confrontation amongst the states and regions.²⁷ Extra regional military support is also evident in SCS; for instance, Japan announced £15.3 million for Indonesian Coast Guard to thwart illegal (Chinese) fishing.²⁸ The US in 2016 fostered Philippines to build airbase Bautista opposite to Spratly triggering China's anger.²⁹ China has deployed J-11 fighters and H-6 bombers in Woody Island, SAM and Cruise missile HQ-9, YJ-62 and YJ-12B across Fiery Cross, Mischief, and Subi reef.³⁰ Besides, extra-regional forces are involving themselves even at the tactical level; for example, Philippines fearing the harassment of China involved the US to rotate their military troops in SCS in 2015,³¹ also renewed the

²⁷ B. Jaipragas and T. Sukumaran, "Indo-Pacific NATO: China's Wang Yi slams US-led' Quad' as underlying security risk at Malaysia Meeting", SCMP, 13 October 2020, Available at: <https://www.scmp.com/week-asia/politics/article/3105299/indo-pacific-nato-chinas-wang-yi-slams-us-led-quad-underlying>, accessed on 24 October 2020.

²⁸ S. Osborne, "SCS: Japan Risks Furious Chinese Backlash as Fishing Row Erupts", The Express, 18 February 2020, Available at: <https://www.express.co.uk/news/world/1243935/south-china-sea-latest-china-indonesia-japan-US-fishing-indonesia-natuna-island>, accessed on 20 May 2020.

²⁹ Charlie Bradley, "SCS Crisis: Duterte warns Philippines of Annihilation amid Beijing-US Row", The Express, 24 January 2020, Available at: <https://www.express.co.uk/news/world/1233091/south-china-sea-duterte-philippines-annihilation-beijing-grip-tightens-spt>, accessed on 29 May 2020.

³⁰ A. Macias, "China quietly installed missile systems on strategic Spratly Islands in hotly contested SCS", CNBC, 2 May 2018, Available at: <https://www.cnbc.com/2018/05/02/china-added-missile-systems-on-spratly-islands-in-south-china-sea.html>, accessed on 29 May 2020.

³¹ A. France Presse, "Philippines Seeks US Assistance in SCS", Defence News, 27 August 2015, Available at: <https://www.defensenews.com/global/asia-pacific/2015/08/27/philippines-seeks-us-assistance-in-south-china-sea/>, accessed on 21 May 2020.

US Visiting Forces' Agreement in 2020 considering the growing tension.³² It can be deduced that the major powers for strategic interests will interfere in the regional littoral affairs and the small littorals will grow alignment militarily for security needs.

ASEAN Friction: ASEAN is formulating the Code of Conduct (COC) for SCS, which is apparently against China. However, China is not the only aggressor in SCS. Vietnam occupied 24 islands in 1996 and 48 islands in 2015, very active in occupying islands without being accused internationally. But in contrast, China and Philippines could occupy only eight, Malaysia five, and Taiwan only one island.³³ The first Chinese construction was an airstrip in Spratly in 2015, while all other littorals (except Brunei) had been constructing military installations since 2009.³⁴ As most of the littorals are active in Sea Basing, it is difficult for ASEAN to unite the contenders or single out China³⁵ or pacify the frictions. The US or QUAD is not in the ASEAN talks, yet their intervention in SCS remains inevitable. Clearly, the regional instruments or forums cannot solve the disputes unless the states are cordial.

Sea Basing - Legal Status

Sea Basing features in SCS may arguably have two core objectives: firstly, developing artificial islands to establish maritime rights and secondly, militarising the islands for seaward defence. Here, the legal status of the islands is the bargaining chip. As per UNCLOS III article 121(1) only an 'island' defined as "*a naturally formed area of land, surrounded by water, which is above water at high tide*" is entitled to have maritime zones.

³² C. Venzon, "Philippines notifies the US keeps Military Deals as Tension Rises", NIKKEI Asia, 3 June 2020, Available at: <https://asia.nikkei.com/Politics/International-relations/South-China-Sea/Philippines-notifies-US-it-will-keep-military-deal-as-tensions-rise>, accessed on 21 May 2020.

³³ A. G. Marghelis, "Tensions in SCS: A Politico-Strategic Overview", Navigation Project in University of Nantes, 17 May 2016, Available at: <https://humanssea.hypotheses.org/518>, accessed on 21 May 2020.

³⁴ G. Austin, "Who is the Biggest Aggressor in the SCS?", The Diplomat, 18 June 2015, Available at: <https://thediplomat.com/2015/06/who-is-the-biggest-aggressor-in-the-south-china-sea/>, accessed on 21 May 2020.

³⁵ Y. Zeisl, "Risks of a COC between China and ASEAN", Global Risk Intelligence, 22 November 2019, Available at: <https://www.globalriskintel.com/insights/risks-south-china-sea-code-conduct-between-china-and-asean>, accessed on 22 May 2020.



Figure 2: Sea Basing in South China Sea

Accordingly, while dealing the arbitration of Philippines, out of 600 reefs, islets, shoals and rocky protrusions of Spratly,³⁶ only 48 islands rise above water at high tide, of which, the Tribunal declared only six features to be islands namely Scarborough shoal, Gaven (North), McKennan, Johnson, Cuarteron, and Fiery Cross. Other reefs, i.e. Subi, Gaven (South), Hughes, Mischief are Low Tide Elevations (LTE). LTE *'cannot sustain human habitation or economic life'*³⁷ and thus cannot claim maritime zones, even though states are active in turning the LTE into artificial islands. UNCLOS III Article 60(8) further states that 'artificial islands' and 'installations' do not possess island status, but it cannot prohibit land reclamation or construction.³⁸ China turned the tiny Mischief rock into an island with 2700 metres airfield within the EEZ of Philippines which as per UNCLOS III

³⁶ Memorial of Philippines of SCS Arbitration, Permanent Court of Arbitration Case No. 2013-19, 30 March 2014.

³⁷ Article 121 (3), United Nations Convention on the laws of the Sea (UNCLOS III)

³⁸ R. Beckman, "China's Island-Building in SCS: Implications for Regional Security", CSCAP Regional Security Outlook 2017, 2016, p41.

article 60(1) is an issue of Philippines, not UNCLOS. In the same way, Vietnam also developed Allison, Cornwallis South, and Pigeon reef in the EEZ of others. However, regardless of status and justification, the states are active in Sea Basing in SCS (Figure2). Some states are candidly using the artificial islands for SAR, military and policing duties, agriculture, habitation, tourism, fishing, exploration of energy etc and that is how UNCLOS makes littorals more sea-facing for own rights, economic emancipation, and nevertheless more disputing too.

‘Sea Basing’ in SCS – Needs versus Challenges

Vigilance in SCS is a colossal task as the challenges are many. Firstly, it needs integrated aerial and coastal network, real-time data fusion, constant surveillance and instant response. Here, the criticalities are multiplied by illegal migration, poaching, gunrunning, dumping etc. Terrorists and separatists are also serious threats here as, *“ISIS is looking for a new base of operations – and SE Asia might just be it”*.³⁹ ISIS recruitment is reported in the Philippines, Indonesia and Malaysia latest in 2020.⁴⁰ Secondly, Shipping accidents in SE Asian waters are high, natural calamities are quite regular, making HADR and SAR the obligatory mandates in SCS.⁴¹ In 2014, SAR for crashed MH 370 involved multinational assets, strategic lift, and robust management for prolonged operations. The lesson learnt was that it is pertinent to maximise the SAR coverage and minimise the reaction time for a successful outcome. In this regard, a project study was undertaken in 2019 where the study shows that the Sea Basing facilities are essential for a responsive SAR in SCS.⁴² To support the HADR, SAR and vigilance

³⁹ Amy Chew, “Malaysia warns Isis may shift base to Southeast Asia, as militants seek fake passports”, South China Morning post, 2019, Available at: <https://www.scmp.com/week-asia/politics/article/3039660/malaysia-warns-isis-may-shift-base-south-east-asia-militants-seek>, accessed on December 27, 2020.

⁴⁰ N. Lee “SE Asian Analysts: IS Steps up Recruitment in Indonesia, Malaysia, Philippines”, Benar News, 23 September 2020, Available at: https://www.benarnews.org/english/news/indonesian/SEA_ISIS-Threat-09232020163502.html, accessed on 30 September 2020.

⁴¹ Marine Insurer Allianz, “Shipping accident statistics identify loss hotspot in Asian Seas”, www.ajot.com, 10 January 2018. Also, refer to the World Disaster Report 2014, International Federation of Red Crescent Societies. p. 220.

⁴² Xiao Zhou, Liang Cheng, Fangli Zhang, Zhaojin Yan, Xiaoguang Ruan, Kaifu Min and Manchun Li. “Integrating island spatial information and integer optimization for locating maritime search and rescue bases: a case study in the south China sea”, ISPRS International Journal of Geo-Information 8, no. 2, 2019: 88.

against threats of trans-boundary and asymmetric in nature littorals will require a wide spectrum of capacities to conduct operations free from homeland dependency 24x7. No doubt, Sea Basing with strategic capacities will become the force multiplier in future peacetime Maritime Operations other than War (MOOTW), SAR and HADR.

Project Study - Integrating Island Spatial Information and Optimization for Maritime SAR Bases in SCS.

Trade routes of SCS are frequently threatened by natural and human factors. These factors cause serious maritime incidents and environmental disasters. The researchers made a methodical framework maximizing primary coverage and minimizing mean access time to victim area using Maximal Covering Location Problem (MCLP) model. The subject research area was SCS (3.3 million km²) for selecting optimal locations for SAR response stations out of over 250 small islands, atolls and reefs. In this study, AIS data of 2016 and data on marine casualties and incidents from 1988 to 2017 were collected and analysed. The research methodology also included data of marine environment, ship's location, marine casualty and incidents, sea ports and islands. The density and distribution of the potential rescue demands in SCS were generated by using the 'Spatial Analyst Toolbox'. Since 2010, China, Vietnam, Malaysia, and the Philippines have built several artificial islands which can maximise the outcome from remote sensing visual interpretations were used. In research, 24 artificial islands obtained from remote sensing visual interpretations were used as the 'Candidate Islands'. *The result shows that there would be a decrease of 1.09 hour in the mean access time for SCS following six (06) island rescue bases, whilst the primary coverage would increase from 62.63% to 80.02% when using a 6-hour threshold.*

Sea Basing Trends and Initiatives in SCS

SCS littorals feel the need to be more concerned about the future roles and implications of Sea Basing in this region, and accordingly, all are moving ahead. Besides, technological innovations have generated new ways and means for developing Sea Basing, few of such trends and initiatives are discussed herein.

Trends of Artificial Islands

Land reclamation in deltaic coastal fringes would be comparatively easier and economical due to huge flow of silt. But in the dispersed sea, it is costly, challenging and requires robust supports. However, dredging and offshore construction engineering at sea have become available and efficient in current years. China is a forerunner in such mega projects in SCS; for example, Chinese self-propelled dredger TIANJING has reclaimed about 10 million cubic meters sand in five reefs of Spratly in consecutive 193 days in 2013.⁴³ Commonly, while building artificial islands, the reefs and shoals are used as the foundation,⁴⁴ and then offshore construction starts following a sequence of assembling steel frame and towing it to the site, sinking of steel mold, filling of concrete of island wall, piling, and placing of revetment etc.⁴⁵ A general idea of SCS artificial island development, i.e. the revetment Slope type (Figure 3) and Caisson-type (Figure 4) are appended below:

Revetment Type Island: It is a concrete structure, built to protect the inland area against sea surge and coastal erosion. It is composed of gravel, sandbags or stone pitching. First, the barge sends gravel and then stacks sandbags to form underwater ‘Cofferdam’.⁴⁶ Finally, gravel is used to fill the slopy island. This procedure requires constant earth filling and piled foundation.

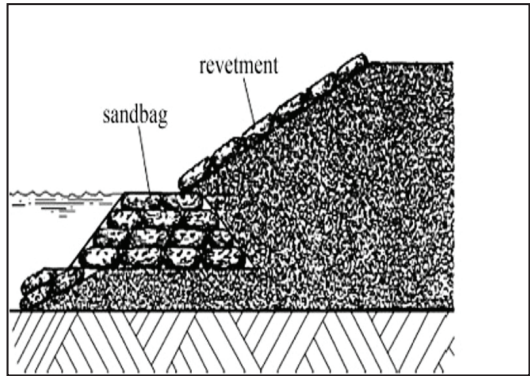


Figure 3: Revetment Type Island

⁴³ Ben Dolven, Jennifer K. Elsea, Susan V. Lawrence, Ronald O'Rourke and Ian E. Rinehart, "Chinese land reclamation in the South China Sea: Implications and policy options", Washington, DC: Congressional Research Service, 2015, P.19. Available at: <https://fas.org/sgp/crs/row/R44072.pdf>

⁴⁴ H.Fang and M. Duan, "Special problems in sea petroleum engineering for beaches and shallow sea areas", Offshore operation facilities: Equipment and procedures, 2014.

⁴⁵ Ibid.

⁴⁶ A Cofferdam is an empty box fitted to the seafloor.

Caisson Type Island: It is a watertight retaining structure used as a concrete dam. Commonly, a prefabricated hollow box is sunk and then filled with concrete to form a foundation. It is an enclosed-type artificial island of steel or reinforced concrete. After making the retaining wall, concrete and sand are filled in the enclosed structure.

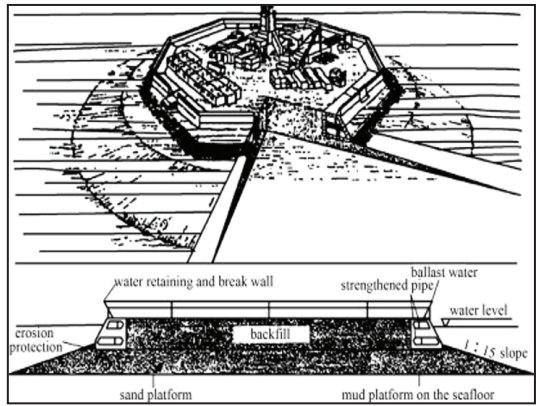


Figure 4: Caisson Type Island

Innovative Sea Basing Structure: Malaysia was innovative with new Sea Basing concept through erecting operational structures at sea. The idea was generated when armed militants/separatists from the southern Philippines attacked Malaysian state Sabah and captured areas of Lahad Dato.⁴⁷ To deter such threats before it reaches the mainland, Malaysian Navy with PETRONAS and Shipping Corporation jointly reconfigured a decommissioned oil rig into Sea Basing platform named PANGGKALAN LAUT SHARIFA RODZIAH (Figure 5). Malaysian Defense Minister Datuk Seri Hishammuddin stated, “*It is an out-of-the-box approach, and was the first of such model for other countries*”,⁴⁸ a unique Sea Basing at 70 metres depth. Interfaced with sea and shore-based Joint Operation Centers, it can coordinate and direct distant operations by the Navy, Special Force, Police and other Maritime Agencies. The platform can adjust its height above the swell and has communication center, accommodations, RO plant, generators, helipad, jetty, fire brigade, provision of fuel and ration for sustained operations etc.

⁴⁷ Abu Sayaf Group, BANGSAMORO and Separatists, operate in Simunul and Tawi Tawi islands in Southern Philippines. Ancient ‘Sulu Sultanate’ ruled Malaysian state Sabah from Mindanao, Philippines. Hence, the separatists captured Lahad Dato of Sabah in 2013 to re-establish their ancient Sultanate.

⁴⁸ Indo Pacific Defence Forum, “Eyes on Water: Malaysia employs Sea Bases to guard against Terror Threats”, 31 July 2017, Available at:

<https://ipdefenseforum.com/2017/07/eyes-on-the-water/>, accessed on 24 May 2020.

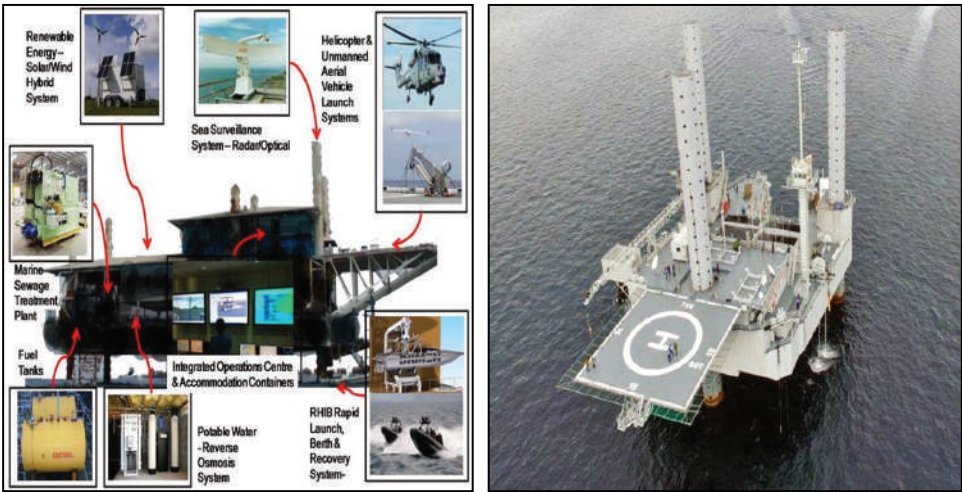


Figure 5: PLD Sharifah Rodziah

Future Sea Basing Projects: During Langkawi International Maritime and Aerospace (LIMA) Exhibition 2017, Malaysian Marine Tech unveiled the future projects offshore Base Stations viz 'Self-propelled Barge' and '8-point Mooring Barge'.⁴⁹ The first one is of 62 meters length, 18.6 meters width and 3 metres draft. The second project with the same dimension but a lesser draft of 1.5 meters can be placed alongside a shoal to be used as Sea Basing. Further advanced is the idea of Chinese' Multi-purpose floating Sea Basing' project by JIDONG Company which is originated from the British HABBAKUK project of WWII.⁵⁰ However, JIDONG plans small Sea Basing of 300 meters long while the larger one of 900 meters with full displacement below 1.5 million tons having a cruising speed up to 18 kilometres per hour. Definitely, if materialised, such Sea Basing can be a unique military power projection platform in the region.

⁴⁹ “LIMA 2017: MTC unveils Mobile Offshore Base Stations for Malaysian Navy”, 23 March 2017, Available at: <https://www.navyrecognition.com/index.php/news/naval-exhibitions/2017-archives/lima-2017-show-daily-news/5016-lima-2017-mtc-unveils-its-mobile-offshore-base-stations-for-royal-malaysian-navy.html>, accessed on 24 May 2020.

⁵⁰ J. Detsch, “China Is Building Giant Floating Islands in the South China Sea”, The Diplomat, 24 April 2015, Available at: <https://thediplomat.com/2015/04/china-is-building-giant-floating-islands-in-the-south-china-sea/>, accessed on 24 May 2020.

Sea Basing - Derived Lessons

Sea features are strategic assets depending on their geo-strategic location and impact. Hence, littoral disputes vis-a-vis Sea Basing in SCS have triggered complex diplomacy, military interference and needs of security preparedness. The tiny reefs, once ignored, are now artificially developed, militarised and purposefully used as Sea Basing. Certainly, Sea Basing has many other significant roles to play in a new era aside its military and security roles. After examining the disputes and trends of the contest in SCS, the paper derives the following salient lessons for other littorals:

- a. Extra regional interference in littoral disputes cannot be overruled. Hence, future littorals need prudent diplomacy side by side a strong seaward defense for national security.
- b. Equitable solution in littoral dispute is difficult unless agreed by the contestant states. But the historical aspects of the claim and habitual use of the island by inhabitants are important for a claim to be recognised.
- c. Regional instrument is vital for mediating disputes. But, disputant states should have to be candid for solutions avoiding frictions.
- d. Technology has turned the reefs into islands and habitats. It also opens the new prospect for the deltaic littorals to reclaim huge lands by dredging soft silt. Innovations like reconfigured gas/oilrigs for military use, floating Sea Basing etc are also adding momentum.
- e. Constant vigilance and instant response are crucial to counter trans-boundary and asymmetric threats for which seaward vigilance from forward Sea Basing can play a crucial role. Above all, it can strongly foster the opportunities of eco-tourism, agriculture, and the prospects of blue economy.
- f. Strategic capacity and robust operational management free from mainland/homeland dependency are essential to managing future HADR, SAR and MOOTW. Sea Basing can be the force multiplier to meet such future demands of military, humanitarian and economic emancipation.

Recommendations

Littorals should focus on Sea Basing to enhance and extend the seaward defence for national security. Littorals may consider reclaiming lands in suitable sea/littoral features/coast to develop islands/coastal fringes and placing operational structures as forward Sea Basing. States should emphasise on developing Sea Basing to meet the future mandates of security, economic well-being, other constabulary and benign challenges.

Conclusion

SCS is considered the 'throat of global sea routes' connecting the east with the west. It is lucrative for energy reserve, strategic connectivity and vested interests of many littorals. In earlier centuries, the SCS littorals with weak littoral defense were subjugated by the colonial powers. But the tide has changed as UNCLOS pronounces rights for all littorals where sea features are cardinal for maritime zones' claim. This has eventually made the SCS a 'hot spot'. Accordingly, the sea features viz islands, off-lying coasts, reefs etc. are now heavily contested for; states are developing artificial islands, habitats and also militarising it. Meanwhile, the Chinese' 9 dash line' has further pushed the SCS littorals towards an unprecedented race of island possession and Sea Basing in recent decades.

This paper has focused particularly on Spratly and Paracel and the legal status of the islands under dispute. Legally, a 'fully entitled island' under UNCLOS III article 121(2) has to be naturally formed and above high water. But amongst nearly 600 reefs and shoals of Spratly and Paracel, the Tribunal recognised only six features with 'island' status and rests are not eligible to claim maritime zones by definition. However, irrespective of the status, the states are active in turning the rocks into artificial islands and constructing military structures facilities as UNCLOS cannot restrict any offshore construction legally. So far, China since 2015 has reclaimed more than 3200 acres lands in Paracel and Spratly. Other contenders like Vietnam, Malaysia, Taiwan and Philippines have also reclaimed lands and developed artificial islands for Sea Basing. Malaysia has added new approach in Sea Basing by stationing a reconfigured oil rig in the deep sea to deter incoming threats. The innovation of mega floating island is also in the pipeline to enhance unique power projection capability.

The traditional use of Sea Basing for power projection has greater operational roles and strategic significance in the new age. Today's Sea Basing can ensure the wartime necessity of seaward defence and can pursue constabulary, benign and other roles of economic emancipation in peacetime. SCS littorals feel the need to undertake MOOTW to deal transnational and asymmetric threats with an instant response, meet HADR and SAR with greater capacity and prolonged sustained operations free from homeland dependency.

SCS is now an epicenter of militarization, gunboat diplomacy and complex international dynamics. It is not only the neighbouring littorals but also the extra-regional states which have interests in this region. Amid disputes, the US enters with Freedom of Navigation to balance China, Russia ensures shadow presence, and the QUAD appears to be the 'Indo Pacific NATO'. In the US-China rivalry, ASEAN is trying to formulate COC but no unified consensus could be reached. Resultantly, the tension is gauging up with military muscle-flexing and extra-regional interference. The contestant states are not sitting idle, rather active in ensuring military possession, building artificial islands and seeking international resolution – all are plated together.

Lastly, Sea Basing is vital both for wartime preparedness and peacetime well-being. Hence, SCS is experiencing the unique race of Sea Basing with artificial islands, innovative operational platforms, growing habitats at sea to ensure operational cum economic emancipation. Apparently, an equitable solution in multilateral disputes is complicated. Here, the regional forum is of course vital, but states should also be candid to avoid frictions. The most interfering and intermingles issue is the involvement of extra-regional dynamics. Hence, littorals are more security concerned, and Sea Basing becomes vital for littorals to safeguard their own rights and sovereignty. Besides, UNCLOS brings hope for the littorals, making them more sea-facing for resources and opportunities. In addition, to meet national mandates of HADR, SAR and MOOTW, future littorals will have to ensure constant maritime vigilance, instant response to crisis, strategic capacity and robust management free from homeland dependency. The needs and impetus of Sea Basing are clearly felt, and its significance will undoubtedly be multiplied in future. To conclude, littorals are recommended to focus on Sea Basing to enhance national security, economic well-being and meet future tasks and challenges.

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