

THE RESURGENCE OF THE CONTESTED ZONE

Rear Admiral Monty Khanna, NM

The use of the sea by human beings can be traced back to ancient history. While the primary purpose of entering the maritime domain was trade, it was not long before ships of the day began being utilised to ferry troops for conquests of distant lands. During the Peloponnesian wars, both Athens and Sparta utilised large ships powered by oars and square sails. The travails of such vessels have been captured in our imagination by epics such as Homer's *The Iliad* and *The Odyssey* which tell us the story of 'Helen of Troy – the face that launched a thousand ships'. However, oars and square sailing rigs limited the ability of these vessels to traverse long distances in desired directions.

It was not until the advent of the Caravel with its fore and aft sails in the early fifteenth century that the age of discovery truly began. With the ability to sail close to the wind, sailors on such vessels set out to explore unexplored waters. The first off the mark were

seafarers from the Iberian Peninsula. During the latter half of the fifteenth century, ships from Spain and Portugal were on an average able to extend their reach by one degree of latitude every year.¹ In 1488, Bartolomeu Dias accomplished the first modern era rounding of the Cape of Good Hope. In 1492, the Spaniard Christopher Columbus became the first Christian European to make landfall in the Americas and in 1498, Vasco da Gama from Portugal set foot on the Indian subcontinent in Calicut.

Discovery was followed by conquest. The world thus witnessed a series of new colonies being set up by European powers. The Portuguese, for example, were in Quilon by 1502, Cannanore by 1505, Socotra by 1506, Muscat by 1507, Diu by 1509, Brazil and Goa by 1510, Malacca by 1511, Timor by 1512, Macau by 1557 and Nagasaki by 1570!

The potential economic benefits of the

¹Russell-Wood, A.J.R. (1968). *Fidalgos and Philanthropists: The Santa Casa da Misericórdia of Bahia, 1550–1755*. University of California Press. ASIN B0006BWO3O. p.9

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colonies resulted in a contest amongst the colonisers. As the primary instrument for colonisation and reaping subsequent benefits through trade was the ship, this contest but naturally extended offshore. The era of the contested zone at sea had begun. Rivalries at sea were either resolved by coming to an understanding through treaty or by the outcome of battle. Spain and Portugal for instance, de-conflicted their westward expansion by signing the *Treaty of Tordesillas* in 1494. This was an exclusive duopoly where outside Europe, Portugal was obliged to restrict their westward expansion to the North-South line passing 370 leagues west of the Cape Verde Islands (about 46.5 degrees west of Greenwich) as everything west of this line would fall under the purview of Spain.² A similar arrangement for the east was struck in 1529 with the signing of the *Treaty of Zaragoza* wherein the limiting line was the anti-meridian of the *Treaty of Tordesillas*. In a sense, these two nations of the Iberian Peninsula with only 100 to 200 ton Caravels at their disposal had carved up the world between themselves!

These arrangements were, however, not destined to last for long. With the Dutch, French and English entering the fray, the contest for colonies intensified and conflict became the predominant theme. We thus witnessed an intense period of colonial rivalry, which brought about several wars such as the Anglo Spanish War (1585-1604) and the numerous Anglo French Wars during which warships of opposing powers were fair game anywhere. This situation has been excellently picturized by Peter Lindsay Weir in his film 'Master and Commander' wherein a British frigate (HMS Surprise) and a French man-of-war (Acheron) get into a series of engagements, which start in the South Atlantic and continue past Cape Horn culminating off the Galapagos Islands.

This period of rivalry came to a head in the seminal Battle of Trafalgar of 1805 wherein Nelson devastated the combined Spanish Armada and French Fleet. This set the stage for Napoleon's decline who was finally defeated in the Battle of Waterloo in 1814. We now had the period of Pax Britannica where

²Bethencourt, Francisco; Curto, Diogo Ramada (2007). *Portuguese Overseas Expansion, 1400–1800*. Cambridge University Press. ISBN 978-0-521-84644-8. p.165

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the Royal Navy ruled the seas. Britain exploited this control over the maritime commons by consolidating its power over its territories. Continental powers that attempted to challenge British supremacy were ruthlessly dealt with as were emperors of the Qing Dynasty of China during the Opium Wars that extended from 1839 to 1860. However, with prolonged supremacy came complacency and in the early part of the twentieth century, the continental powers of Europe were in ascendancy once again. During this period, even Japan, post the Meiji Restoration emerged as a major power. Her prowess in the maritime field was dramatically thrust on the world in 1905 wherein Admiral Togo's ships destroyed the Russian Fleet at the Battle of Tsushima Straits. This fresh contest for power brought about two World Wars in rapid succession. The industrial age and its associated military inventions and innovations resulted in violence on an unprecedented scale. Though the allies leveraged their control over the maritime domain to eventually come out victorious, Britain emerged a spent

nation having expended most of her resources in fighting these prolonged conflicts.

As part of repayment for military hardware loaned to her under the lend-lease programme, Britain transferred the control of numerous island territories including Diego, Garcia to the U.S. This coupled with the fact that at the end of World War II, the U.S. emerged as the dominant economic and maritime power, resulted in the baton of the maritime supremo changing hands. This is best described by George Friedman in his book, 'The Next 100 Years' wherein he states, "The United States Navy controls all the oceans of the world. Whether it's a junk in the South China Sea, a dhow off the African coast, a tanker in the Persian Gulf, or a cabin cruiser in the Caribbean, every ship in the world moves under the eyes of American satellites in space and its movement is guaranteed – or denied – at will by the U.S. Navy. The combined naval force of the rest of the world doesn't come close to equalling that of the U.S. Navy."³

³Friedman, George; *The Next 100 Years: A Forecast for the 21st Century* (2009). Anchor Books. ISBN 978-0-7679-2305-7. p.17-18

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Seventy years after the unconditional surrender of the Axis Powers, the winds of change are blowing again. Having emerged from its century of humiliation, China's growth in modern times has been unprecedented. Its GDP has already surpassed that of the U.S. in PPP terms. Recent hick-ups notwithstanding, by all estimates even in nominal terms, China's GDP is likely to sail past that of the U.S. in the next 15 to 20 years. Further, the relationship between the U.S. and China is starting to unravel. While cold-war dynamics during the Nixon era had brought about close cooperation, economic competition and growing political assertiveness has resulted in the theme of the relationship changing from cooperation to competition and possibly confrontation. Cognizant of its growing vulnerabilities in free-riding on a U.S. centric architecture of global maritime security, China has significantly ramped up investment in its maritime capabilities. Further, peeved by the aggressive and intrusive nature of U.S. surveillance off its coastline, it has leveraged the other global commons i.e. airspace, outer space and cyber space to develop a robust A2AD capability thereby significantly

extending the dimensions of the contested zone. It has also embarked on a colossal island building campaign that has the potential to extend the reach of shore-based anti-access forces by several hundred miles. Apart from geopolitics and changing economic fortunes, the expansion of the contested zone is also being driven by technology. The cyber domain with its related command and control networks and ability to sift vast amounts of data in real time has created fresh vulnerabilities. Cyber space is the least regulated of the global commons and requires minimalistic wherewithal to intrude. Rules of engagement are ill-defined and targeted attacks have the potential to cause mega disruption.

The ability to exploit outer space is on the threshold of significant change. The lift capacity of rockets such as the Long March 5 is now approaching a mind boggling 25 tons. Private companies such as SpaceX are pushing at the frontiers of science to drive down launch costs by innovative means such as incorporating reusable rocket stages that land vertically on floating platforms. Satellites are becoming lighter and much more capable. Start-ups such as Planet Labs have already

successfully launched more than 50 earth observation nano-satellites as part of Flock 1 and are now going ahead with Flock 2.⁴ Once rolled out in its entirety, they will provide 365 day coverage of any part of the globe at a resolution not very different from that provided by established commercial operators. More so, they will do so at a fraction of the cost and intend to provide open access to their databases. Elon Musk's SpaceX plans to launch a constellation of close to 4,000 satellites to provide global internet services.⁵ Google is toying with the idea of providing similar services through payloads suspended on high altitude balloons.

Insofar as airspace is concerned, we are on the threshold of persistent flight that will allow large winged solar powered electrically propelled airplanes to remain airborne indefinitely. The ongoing expedition by the Solar Impulse has already demonstrated the maturity level of this technology. To top it all is the exploding use of increasingly smart autonomous vehicles. While the capabilities of

UCAVs and UAVs are well known, there is a similar silent revolution taking place in the underwater domain. Mobile submersible platforms powered by buoyancy engines will soon be plumbing the oceans for months together collecting acoustic and hydrological data thereby creating veritable mobile SOSUS arrays. Unmanned continuous trail submersibles will latch on to submarines as they leave their bases and pursue them throughout their deployment, cueing forces to prosecute them when necessary. All these technologies and more have significantly upped the exploitation of the commons to address emerging security concerns.

It can thus be seen that we are once again approaching a period of turbulence. Changing power equations primed by technological developments are upsetting the status quo. Well established spheres of influence in the maritime space are being challenged resulting in a significant expansion of the contested zone. We as a nation would be wise to closely follow and study these changes, identify the fresh

⁴Gunter's Space Page; http://space.skyrocket.de/doc_sdat/flock-1.htm (accessed on 25 Sep 15)

⁵Stone, Jeff (2015). *Elon Musk's SpaceX Plans to Launch 4000 Satellites, Broadcasting Internet to the Entire World*. <http://www.ibtimes.com/elon-musks-spacex-plans-launch-4000-satellites-broadcasting-internet-entire-world-1960546> (accessed on 25 Sep 15)

opportunities and challenges that they create, and define our strategy to capitalise on the opportunities while simultaneously mitigating vulnerabilities. Given the pace and magnitude of change, this will always be work in

progress. However, we would need to devote the necessary resources to ensure that we are always ahead of the curve and do not find ourselves in a position where our interests have been irrevocably compromised.



About the Author

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