

Federated Maritime Intelligence Operations from the North Atlantic to the South China Sea: Expecting the Unexpected

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On 6 October 2015, as I prepared a speech for a group of German, Polish, Scandinavian, and Baltic Army and Special Operations officers, as well as government defence experts, regarding the importance of NATO nations developing a federated maritime operations intelligence programme, I unfortunately had no idea the next day a Russian Navy squadron in the Caspian Sea would launch 26 SS-N-30A (Kalibr-NK) cruise missiles (range 1,500–2,500 kilometers) at Islamic State targets in Syria. This unanticipated Russian strike provided me with a compelling case for why NATO must act now to develop the tactics, techniques and procedures for sharing and federating intelligence operations across the maritime domain of the European theatre.¹

That incident reinforced my personal experience of nearly 30 years of conducting maritime operational intelligence (OPINTEL) that the *unexpected* must always be *expected*. During the past five years, that challenge has only increased as European nations have come to recognise the vital importance the maritime domain holds for their national security interests. This maritime domain importance is increasingly clear to them from their near shores to the far reaches of the Pacific, especially in the vital international waters of the South China Sea. Examples of the relevance of the maritime domain in Asia range from the seizure of Scarborough Shoal in 2012, the building and militarisation of seven artificial islands in the Spratly's since late 2012, or the recent reports of the PLA Strategic Rocket Force firing a salvo of anti-carrier ballistic missiles (DF-21D and DF-26) into the South China Sea. When combined with increasing military cooperation with Russia in the form of Joint Sea Exercises, these strategic indicators point to the threat the People's Republic of China (PRC) and Russia present to NATO member states throughout the Indo-Pacific.

1 Sam LaGrone, "Kurdish Video Lends Credibility to Russian Navy Caspian Sea Strike Mission Claims", *U.S. Naval Institute News*, 7 October 2015.

This chapter explores five factors related to why a federated maritime OPINTEL programme among NATO and its allied nations is absolutely essential for their future security. They are:

- *Expect the unexpected*, the intelligence professional's prime directive.
- Federated maritime operational intelligence in the 21st century.
- Intelligence sharing for allied navies and how this sharing can be used to further strategic thinking and decision-making.
- How the strategic community (governments, think tanks, universities, etc.) can provide input through information, intelligence and research to help address maritime security and strategy challenges.
- The benefits to NATO of sharing an common operational picture in terms of adversaries.

Expect the Unexpected

Intelligence professionals must understand how strategic foresight and predictive analysis at the operational and tactical level can influence an emerging allied maritime strategy. The story of the Russian Navy launching cruise missiles from the Caspian Sea across Iran into Syria in 2015 is not the first time a nation has used its naval forces to surprise an opponent. As a former Director of Intelligence and Information Operations for the US Pacific Fleet, I went to work each day passing by the remains of the USS Arizona, which was sunk by the Imperial Japanese Navy's surprise attack on 7 December 1941. While there are other examples of how naval power has been used to surprise an adversary, the study of these events is intended to help defence planners and decision makers to decide how best to diminish the likelihood of this kind of strategic surprise in the future. From my experience, the best way for NATO and allied nations to minimise this threat vector from the sea is to build a federated maritime OPINTEL programme. By building such a functional programme among NATO and allied members, the combined power of these nations can maximise the use of increasingly scarce resources for substantially more effective maritime domain awareness.

Federated maritime OPTINEL is the systematic approach used by naval intelligence teams to track ships, submarines and aircraft at sea 24/7, 365 days a year. By using fine-grained analysis from all sources in a networked arrangement, individual nodes are able to contribute to and receive a common operational picture. Today in the US Pacific Fleet, a federated maritime OPINTEL programme provides broad and deep situational aware-

ness of threats at sea, as NATO intelligence also does for land-based threats today, if not better. The creation of such a programme is the first line of defence in diminishing the likelihood of NATO being surprised by future attacks from the sea. The daily, disciplined tracking of ships, submarines and aircraft provides commanders, planners and decision makers with a current snapshot of the threats at sea. This data forms the very foundation of all defence decision-making regarding the maritime interests of all member nations.

Practically, a federated maritime OPINTEL system also provides the formulation of a high-fidelity database of maritime operations. When combined with the use of artificial intelligence, this database provides a deeper understanding of the changes in an adversary's naval force structure, its force disposition and minute changes to its operating posture. This knowledge is vitally important at the tactical and operational levels of war at sea.

Perhaps more importantly, at the strategic level this data can be used for long-term resource allocation decisions regarding the future size and disposition of member states' naval forces. By utilising this rich database of maritime operations, NATO nations can develop an understanding of the strategic trend lines of the Russian or PRC navies' capabilities and intentions. This understanding, which is currently lacking, is essential for NATO to educate elected officials and to make the case to their civilian populations as to why more resources should be allocated faster for the building of their own naval force structures.

The failure of NATO to provide this rigorous and systematic focus on the day-to-day tactical operations of an adversary's naval movements is a disservice to their nations and to the alliance. Lacking this intelligence, governments cannot make the kinds of hard decisions required to allocate resources to build the requisite naval force, thus putting member states in a continual position of vulnerability and strategic surprise.

Federated Maritime Intelligence Operations in the 21st century

US Navy OPINTEL was rapidly created in the immediate aftermath of the devastating attack on Pearl Harbor on 7 December 1941. Although in its infancy, its installation underpinned the dramatic victory at Midway—the turning point in the War in the Pacific—just six months later. Throughout World War II, the US Pacific Fleet's group of codebreakers and intelligence analysts refined the art and science of tracking the Imperial Japanese Navy. The Navy Intelligence community learned how to share this highly classified intelligence with operational US Navy warships and submarines

to great effect. It was from these origins that the US Navy created the Ocean Surveillance Information System (OSIS), which was used during the Cold War. The prime deliverable of the OSIS system was a shared, worldwide “plot” of the Soviet Navy from a network of US intelligence centres and facilities. It was this intelligence plot that enabled the US to compete with the Soviet Navy from the strategic level of force structure development down to the tactical level of “bumping-and-grinding” from the Kola to the Kamchatka peninsulas.²

Throughout the long Cold War, the US Navy’s OSIS system continued to refine and codify tactics, techniques and procedures based on the principles of all-source analysis, maintaining an intelligence plot and creating a link to operational forces and commanders’ intelligence requirements. Following the end of the Cold War in the early 1990s, as the Russian Navy retreated from the world’s oceans, the US Navy’s OSIS network began to erode. With the promise of a “peace dividend” and the shrinking defence budgets associated with it, along with the strategic shift in US national interest towards the Middle East, the structure of maritime OPINTEL devolved to the point of being extinguished within the US Navy. However, by 1999 it became evident to the US Pacific Fleet that the PRC was on a strategic trajectory to build a rival naval force, one that required the US Navy and its allies to be able to find, fix and track. Initially, the area of concern was in and around the First Island Chain, but over the course of the next two decades that area enlarged itself into a global concern.

After another decade of devolution, in 2012, the US Navy ushered in a new era of maritime OPINTEL with the formal establishment of the Pacific Fleet Intelligence Federation (PFIF).³ The PFIF provided detailed direction for the organisation and collaboration of the Pacific Fleet’s intelligence and cryptologic resources to support the maritime OPINTEL mission of the US Pacific Fleet’s area of responsibility. The PFIF represents a level of focus and systematisation not seen since the Cold War. What is unique about this ‘federated’ system is its collaborative nature, involving coordination from sailors across multiple organisations at various echelons, afloat and ashore, working in unison 24 hours a day, seven days a week to provide the most precise maritime OPINTEL to our afloat forces.

2 For more on the history of US Navy OPINTEL from WW II to the Cold war, see Christopher Ford and David Rosenberg, *Admiral’s Advantage: U.S. Navy Operational Intelligence in World War II and the Cold War*, (Annapolis: U.S. Naval Institute Press, 2014).

3 James E. Fanell, “The Birth of the Pacific Fleet Intelligence Federation”, *Naval Intelligence Professionals Quarterly*, October 2013.

Efforts are ‘federated’ across nodes in Japan, Hawaii, San Diego and Washington DC, along with relevant data collected by regional allies. The result is the adversary Common Operational Picture (RED COP). Through the RED COP, the PFIF provides Fleet Commanders and deployed forces precise geo-coordinate level intelligence regarding the location of maritime platforms across the Pacific Fleet’s area of responsibility. It also contains a detailed pedigree of the sources used to identify the location of an adversary unit.

By dividing tasks functionally and geographically, the ‘federated’ approach increases focus and deepens analysis of maritime threats. The end-goal is to more effectively and efficiently deliver intelligence on adversary naval operations intentions to commanders and decision makers at every echelon.

The Key Ingredient—Allies

As originally conceptualised, in the years since its creation the fleet intelligence federation has expanded from being a US-only enterprise to one that integrates maritime OPINTEL from allied and friendly navies, such as Quadrilateral Security Dialogue (the Quad) members Japan and Australia, with India poised to join soon. Since its beginnings in 2007, the Quad between Japan, the United States, India and Australia has operated both as a meeting format for senior officials to discuss regional security issues and has increasingly engaged in numerous naval exercises across the Indo-Pacific.⁴

Over the past decade, the US Pacific Fleet, the Japanese Maritime Self-Defense Force (JSMDF) and the Royal Australian Navy have benefited from this fleet intelligence federation whether by sharing open-ocean surveillance information collected by maritime reconnaissance platforms or by sharing and integrating RED COP data. With the recent India–USA 2+2 talks and the signing of information-sharing protocols, India is now poised to join an existing fleet intelligence federation. India’s participation will provide the architecture for achieving information superiority across the vastness of the Quad’s Indo-Pacific fleets, improving tactical intelli-

4 Patrick Gerard Buchan and Benjamin Rimland, “Defining the Diamond: The Past, Present, and Future of the Quadrilateral Security Dialogue”, *CSIS*, March 2020.

gence support to deployed naval forces and thus increasing their ability to deter aggression on the high seas.⁵

By developing its own maritime OPINTEL programme, NATO would be poised to join this emerging federated maritime OPINTEL system. NATO would clearly demonstrate that the shared value of “freedom of the seas” is a strong bond for democracies in the face of revisionist practices of exclusion and intimidation on the high seas.

The Role of the Strategic Community

What can the ‘strategic community’ (governments, think tanks, universities, etc.) do to contribute to the federated maritime OPINTEL environment? It is important to note here that, as in the Cold War, useful and timely OPINTEL is the result of efforts by the whole of society. While US naval intelligence professionals in the Pacific pay close attention to the comings and goings of the PRC’s maritime forces, experts in think tanks and academia have also contributed to the scholarship regarding Chinese activities at sea. The tactical movements of PRC naval, coast guard and militia forces are generally derived from classified sources (e.g. imagery, communications and acoustic intelligence). The European strategic community can contribute to the corpus of PRC maritime domain awareness through the existing and emerging number of unclassified sources available in the 21st century digital age.

The underlying story of the PRC’s maritime activities and expansionism is available from a variety of open sources. To satisfy the Politburo’s mandates and a patriotic public, China’s state-owned and state-controlled media routinely report about the operations and capabilities of PRC naval forces.⁶ In addition, Chinese academics publish detailed analytic reports regarding a broad array of the PRC’s maritime forces and their impact on

5 James E. Fanell, “Operationalise Quad through Federated Maritime Operational Intelligence”, *The Sunday Guardian*, 24 October 2020. <https://www.sundayguardianlive.com/news/operationalise-quad-federated-maritime-operational-intelligence>.

6 Examples of PRC media reporting on maritime warfare: Liu Xuanzun, “China reveals large destroyer’s replenishment training for 1st time”, *Global Times*, 12 May 2020; Zhao Lei, “Navy sends its most capable combat ship on escort mission, *China Daily*, 10 September 2019; “Two Chinese aircraft carriers complete routine training and sea trials”, *PLA Daily*, 24, September 2020.

the PRC's grand strategy.⁷ Likewise, PRC government agencies release reports cataloguing achievements, key objectives and the nation's new tasks across the maritime domain. Indeed, the quality and consistency of this data has enabled foreign analysts to use quantitative methods to test theories about shifts in Chinese diplomacy.⁸ The PLA, for its part, communicates through service publications, seeking to instil a collective consciousness of the PRC's stated desire to become a maritime power.⁹ All of these sources are open to the strategic community for research, analysis and reporting in support of a federated maritime OPINTEL programme.

To follow Chinese activities at sea, one does not need to rely on Chinese sources alone. Other foreign governments also release data regarding such issues as the PLA Navy, PLA Maritime Militia, China Coast Guard, the PRC's massive fishing fleet, global Belt & Road Initiative (BRI) port and airfield construction and access/control agreements, and PRC aviation activities across maritime regions.

Often this information is associated with a particular incident. For instance, in mid-2014, the Vietnamese press published numerous articles in English covering China's provocative deployment of an advanced new drilling rig (HYSY-981) in disputed waters south of the Paracel Islands.¹⁰ Likewise, Indonesia has released informative reporting about how it is responding to illegal Chinese fishing and coast guard activities taking place in their exclusive economic zone (EEZ) near Natuna Island.¹¹ More recently, Taiwan has been providing detailed reporting on the PLA's incursions into its southern Air Defense Identification Zone (ADIZ), which provides valuable insights into the PRC's grand strategy, as well as an appreciation of the operational capabilities of its armed forces. Japan has also played a leading role through the systematic publication of data on the PRC's maritime forces in the East China Sea, specifically around the Senkaku Islands, as well as out into the Philippine Sea. "Graphical depictions of these data vividly show Chinese expansion over time, from the inaugural intrusion of

7 Examples of PRC academic analysis on maritime warfare: Hu Bo, "'Asian NATO' is difficult to achieve, but we must be highly vigilant", *Global Times*, 9 September 2020; *Journal of Military Operations Research and Systems Engineering*, vol. 33, No. 1, March 2019.

8 James Fanell and Ryan Martinson, "Countering Chinese Expansion Through Mass Enlightenment", *CIMSEC*, 18 October 2016.

9 "Xi advocates efforts to boost maritime power", *Xinhua*, 31 July 2013.

10 "Chinese vessels try to scare Vietnam's ships further away from illegal rig", *Tuổi Trẻ*, 9 June 2014.

11 Haeril Halim, Anggi M. Lubis and Stefani Ribka, "RI confronts China on fishing", *The Jakarta Post*, 21 March 2016.

two CMS vessels in December 2008 to the regular patrols that started in September 2012” and continue to today.¹²

Even the PRC has provided an example of how to exploit the use of open-source materials through their newly established “South China Sea Probing Initiative” (SCSPI). The SCSPI “is an open think tank and cooperative network of Chinese and foreign scholars aimed at comprehensively and objectively grasping the dynamics and news in the South China Sea by accurately probing the military, political, economic and environmental situation there”.¹³ The SCSPI tracks maritime and aerial platforms and releases fine-grained data on their movements from countries within and outside the region. In other words, the PRC has realised the importance of providing fine-grained, open-source data on the maritime domain of the South China Sea.

Any effort by NATO and its allies to conduct effective and safe operations in the Pacific, particularly in the South China Sea, would reap great benefit from being supported by a ‘strategic community’ that maximises the use of open-source materials. This information would inform NATO’s elected officials, policymakers and general publics about the environment in these troubled international waters—waters 1.5 times the size of the Mediterranean Sea that are increasingly important to their collective national security.

Sharing the RED COP

In addition to the European strategic community contributing to a better understanding of the maritime domain, NATO should also consider how it can translate its own RED COP into information for public release. While NATO naval forces use a classified RED COP, this does not prevent them from being able to issue standardised unclassified reports of the PRC’s maritime force disposition across the Indo-Pacific region. Technology used today by NATO intelligence centre watch-standers can automati-

12 “Trends in Chinese Government and Other Vessels in the Waters Surrounding the Senkaku Islands, and Japan’s Response”, *Government of Japan Ministry of Foreign Affairs*, 7 January 2021.

13 Liu Xuanzun and Guo Yuandan, “Interview with South China Sea think tank head shows three possibilities risking China–US military conflict”, *Global Times*, 2 August 2020.

cally produce such unclassified reports without posing a risk to their sources and methods.¹⁴

Releasing such data would benefit NATO nation's overall effort to better understand the PRC's maritime strategy and its implications for member state national security interests. It could also open up a whole new dimension of scholarship in which the PRC's maritime actions could be directly correlated against Chinese Communist Party (CCP) propaganda. Dangerous incidents could be placed in context, thus easing tensions or alerting NATO states to potential shifts in the strategic and operational environment, as well as better informing resource allocation to force disposition decisions.

While scholarship is valuable in and of itself, the ultimate purpose of such an initiative would be to improve the ability of democratic nations to respond to the challenge from a risen PRC. Elected officials, who ultimately decide policy, take cues from public discourse. Thus, if wise policies are to be crafted, the broader public must be cognisant of the PRC's pursuit of maritime power and the threat that it poses to our shared national interests.

This is especially important given that any proper response would require the collective whole of NATO to bear additional costs and risks. Unlike Russia, the PRC's actions have been carefully calibrated to not arouse the international community. The PRC's sophisticated Political Warfare operations are designed to help it achieve its objectives short of kinetic conflict, deceiving some key officials into believing China's maritime expansion is not a threat.¹⁵ This reality forces NATO to place a very high premium on the disciplined publication of open-source information about the PRC's actions in the maritime domain.

Open-source information alone is not a cure-all, but it certainly is an essential element of keeping track of the PRC's aggressive and expanding maritime power, which is spreading outwards from the Indo-Pacific. Indeed, today there is already enough information available in the public domain for Europeans to see and comprehend these key trends. As the NATO maritime intelligence federation develops data, even reluctant policymakers, government officials and politicians will have to either adjust

14 James Fanell and Ryan Martinson, "Countering Chinese Expansion Through Mass Enlightenment", *CIMSEC*, 18 October 2016. <http://cimsec.org/countering-chinese-expansion-mass-enlightenment/28781>.

15 Kerry Gershaneck, *Political Warfare: Strategies for Combating China's Plan to "Win without Fighting"*, Marine Corps University Press, Quantico, Virginia, Chapters 1 & 3.

previously ill-informed and incorrect perspectives or risk self-marginalisation.

Sharing detailed data about the PRC's maritime activities at sea would also likely have an impact on regional and other foreign public citizens and governments which can use it to draw more realistic conclusions about the implications of China's rise. Further, by pursuing these recommendations, a network of informed nations would enable and enhance NATO's diplomatic efforts in the Indo-Pacific region. Making such information widely available to the international community would also help to counter the CCP's false narrative that America and its allies are the root cause of instability in the Indo-Pacific.

Conclusion: A Word of Warning

Those within the NATO and European strategic community who accept these recommendations should be aware of a cadre of professional bureaucrats who assert that focusing on the RED COP will cause intelligence teams to underperform at the operational level of war. These naysayers assert that the pursuit of and focus on fine-grained maritime OPINTEL will come "at a cost in time and effort that cannot be devoted to the analysis of alternatives needed to be predictive".¹⁶ This view also asserts the following self-serving straw man, "if past remains prologue, the failure will be blamed on the intelligence chief [...] not the commander's lack of operational vision."¹⁷

After nearly 30 years of experience of working in the field of maritime OPINTEL, I reject such assertions and argue the contrary: by adopting a robust and federated maritime OPINTEL programme, commanders in the fleet up to decision makers at the highest levels will make better decisions based on facts, not on uninformed assumptions.

As some NATO nations begin to significantly expand their naval operations in the waters of the Indo-Pacific, it would be in their best interest to take the time to develop and dedicate resources to the building of a truly federated maritime OPINTEL programme. The implementation of this programme would also have the desired benefit of enticing European stra-

16 B. Lynn Wright, "Naval Intelligence: Listen to the Fleet", *U.S. Naval Institute Proceedings*, vol. 147/1/1, 415, January 2021.

17 *ibid.*

tegic thinkers to devote more time and attention to the study of these turbulent waters. Ultimately, the benefit is for the people of these nations and their desire to live and sail freely throughout the world.

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