

CAPABILITY: MARITIME SECURITY – A NAVAL SERVICE ROLE

[Redacted text]

INTRODUCTION

[Redacted text]

[Redacted text]

MARITIME SECURITY A ROLE FOR THE NAVAL SERVICE

The Naval Service is tasked with a wide spectrum of operations from benign tasks such as fishery protection operations to armed maritime interdiction operations as the lead armed seagoing member of the national joint taskforce on narcotics. Although not specifically assigned by government, an implied task as the principal seagoing agency is to provide maritime security. For that reason the NS describes its patrolling posture as conducting maritime defence and security operations (MDSO). However, generating a competent holistic maritime security capability requires resources; namely personnel, training and infrastructure. Without this tasking explicitly assigned, the necessary resources are unlikely to be forthcoming. In contrast, the government assigned task of fishery protection and the operation of a Fisheries Monitoring Centre (FMC) to the NS means the necessary resources are provided. This was clearly demonstrated in 2020 when the FMC was rapidly expanded from 26 to 42 personnel in preparation for BREXIT.

The White Paper on Defence makes reference to national maritime security arrangements citing continued Defence Organisation participation on the Department of Transport, Tourism & Sport (DTTAS) chaired National Maritime Security Committee aimed at addressing the current governance arrangements [for maritime security]². This Defence Organisation approach implies that maritime security is a DTTAS role and the Marine Survey Office (MSO) within DTTAS is assigned as the maritime transport and security regulator³. The MSO website does not provide information on the operational element of maritime security.

²Irish Government. 2015. *White Paper on Defence P40*. Dublin: Government Press Office.

³DTTAS. 2019. *Marine Survey Office*. Accessed March 16, 2021. www.gov.ie/en/organisation-information/111f0e-marine-survey-office.

The DTTAS Irish Coastguard's website⁴ states, "operations in respect of maritime security, illegal drug trafficking, illegal migration and fisheries enforcement are co-ordinated by other bodies within the Irish Government."

There would therefore appear to be a dichotomy of views with respect to maritime security in that DTTAS is responsible for maritime security but does not have the means to conduct maritime security operations whereas the Defence Organisation has the means to deliver maritime security operations but does not have the responsibility. This lack of clear maritime security policy and lack of subsequent operational tasking that should cascade is creating a greyness that can and likely is being exploited by bad actors. The following example highlights the seriousness of this issue and how vulnerable Ireland's waters are from a maritime security perspective.

DERELICT MERCHANT VESSEL – MV ALTA

Such is the lack of maritime security or situation awareness in Ireland that a derelict 77 metre merchant ship can pass through Ireland's maritime domain before grounding on the shoreline east of Cork Harbour. The Marine Casualty Investigation Board (MCIB) report on the MV Alta⁵ describes why the vessel was not reported by the Coast Guard or NS as the vessel was not transmitting electronically. It further incorrectly comments that the tracking of such a vessel is not available through EU agency systems such as the European Maritime Safety Agency (EMSA) SafeSeas Net GUI (SEG), however this is an aside. Although the report recommends the establishment of a working group to establish proposals for identifying, tracking and interdiction of derelict ships, it is outside the MCIB report to pose the question, how could this happen?

⁴Dept of Transport Tourism & Sport. 2019. *The Irish Coast Guard*. Accessed March 16, 2021. www.gov.ie/en/policy-information/eda64a-the-irish-coast-guard/.

⁵Marine Casualty Investigation Board. 2020. *Investigation Into An Incident Involving The Grounding Of The Vessel 'MV ALTA' At Ballyandreen Bay, Ballycotton, Co Cor, 16 February 2020 page 12*. MCIB Report, Dublin: MCIB.

The image below shows a 76 metre uncorrelated vessel with 90% confidence on 10 February 2020 off the Cork coast on the EMSA SEG system, 6 days before the MV ALTA grounded. Uncorrelated means the vessel was detected by remote sensing but has no electronic signature. This was likely the MV ALTA. The EMSA SEG system is available to numerous State and European agencies.

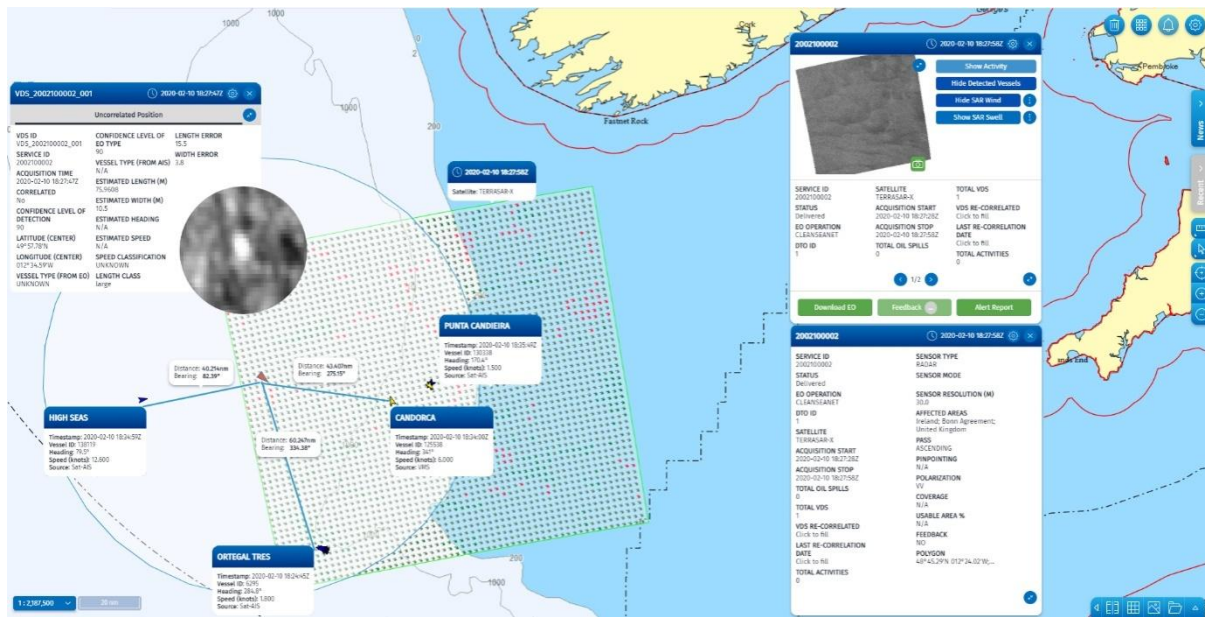


Figure 1 – EMSA SEG REPORT 10 FEB 2020

The information was available but it would appear no one was looking; this is how a derelict 77 metre ship made its way slowly through the Irish maritime domain unnoticed and unchecked. Thankfully in this case there was no significant consequence in terms of environment or casualty impact but this incident does highlight the low level of actual maritime situation awareness in Ireland and must pose the question; how many other *dark* vessels transit our waters regularly unchecked? Without a clear maritime security strategy, cascading policy, and assigned operational maritime security authority this situation will continue. Such lack of structure combined with multiple agencies managing segments of the maritime domain with *siloed* interests is resulting in inadequate maritime situational awareness or response capability. A solution to overcome this

maritime *silo* situation adopted by other maritime nations is to develop a national maritime information centre.

NATIONAL MARITIME INFORMATION CENTRE (NMIC)

The NMIC model comprises of a multi-agency centre where officials from multiple maritime authorities are co-located and work together to build maritime situation awareness (MSA). Information is then passed to the correct relevant authority within the NMIC. This model provides a collaborative approach to generating and maintaining MSA with amplifying information available through the on-site officials. The NMIC can then manage and securely disseminate the full range of information from black layer highly sensitive information to white layer information such as maritime safety. In the UK, the NMIC was established as a temporary measure to ensure a collective approach to maritime security and MSA during the 2012 Olympics hosted by the UK. The value of this approach was quickly realised and formally established. The UK NMIC has since evolved into the Joint Maritime Security Centre⁶ (JMSC) and is described as the “UK government’s centre of excellence for maritime security. Its mission is to increase awareness and understanding of maritime security threats and enable cross-government coordination to deliver a whole-system approach.” The JMSC is manned 24/7 with personnel from across the maritime domains, the senior leadership is drawn from the Royal Navy, Ministry of Defence, Border Force and the Marine Management Organisation.

The NMIC/JMSC model would address the significant shortcomings to maritime domain management, maritime situation awareness and maritime security in Ireland. The model removes the exploitable gaps between authorities currently in existence which allows a 77 metre derelict to transit our waters unchecked. To be responsive across the entire information spectrum from highly

⁶UK Government. n.d. *Joint Maritime Security Centre*. Accessed March 18, 2021.

<https://www.gov.uk/government/groups/joint-maritime-security-centre>.

sensitive black layer information to benign white layer information, the NMIC should be hosted within the maritime defence component at the Naval Base Haulbowline similar to the approach of the UK and other nations. Being co-located with the Naval Service would also ensure a swift coordinated response from naval assets as required. In Ireland the NMIC could comprise of the Naval Service, Revenue, An Garda Síochána, and Coast Guard.

With an ever evolving domain maritime security is no longer two dimensional, maritime cyber-security is now a growing threat to an island that depends on shipping for 99% of its imports, and shipping as an industry depends on technology to deliver its services.

MARITIME CYBER SECURITY – WIRELESS SERVICES

Technology is a critical enabler to maritime activity whether policing, commercial or private activity. Satellite-Based Navigation Systems such as the well-known Global Positioning System (GPS) are depended upon for navigation from the kayaker to the ultra large crude carrier (ULCC) merchant ship. Automatic Identification Systems (AIS) are used to notify vessels in vicinity of each other of their location, course, and speed etc for collision avoidance. While systems such as these are regularly labelled as aids to navigation, the reality is they are highly depended upon for safe navigation. However, one thing they have in common is that they can be jammed or more dangerously spoofed⁷. A cyber-attack such as GPS spoofing on a ULCC at the entrance to Cork Harbour in poor visibility could be disastrous.

The internet-of-everything as a ubiquitous phenomenon is depended upon as much in the maritime as it is on land. For instance, shipping containers are remotely monitored by suppliers, fish are

⁷Ball, Ben. 2020. *Why GPS spoofing is a problem (and what to do about it)*. November 12. Accessed March 18, 2021.

<https://nextnav.com/gps-spoofing>.

auctioned before landing from fishing vessels, weather information is almost real-time, ULCC cargoes are re-routed depending on oil price, the reliance is exhaustive. Offshore, internet services are largely delivered by commercial satellite based providers beaming footprints on to the Earth's surface from space. Just like any wireless communication service, satellite internet services can be jammed. As an island nation so dependent on maritime commerce, the effect of internet service denial at sea could be harmful to our seafarers, our national economy and way of life.

I am unaware of the authority responsible for the maritime cyber safe environment policy for Ireland or the operational monitoring; it is perhaps a service that would reside comfortably within maritime security and a role for the State's principal seagoing agency.

CONCLUSION

The purpose of this short food for thought submission is to highlight the irregularities that exist in the operational monitoring of Ireland's maritime domain and consequently the lack of real situation awareness that exists as evidenced by the derelict MV ALTA. The siloed nature of the government departmental approach to maritime security is enabling bad actors to exploit our open borders. The means and capabilities exist to provide maritime security through infrastructural capability models ashore such as the NMIC, and at sea through a well-resourced naval presence on patrol providing a range of services as the principal sea going agency. The Naval Service is well placed to expand into new roles including maritime cyber threat detection in wireless services. Sub-sea cabling is deliberately excluded as I am aware of a further submission on this topic by a Naval colleague.

The single service coordinated approach is both efficient and cost saving for a small economy such as Ireland. Maritime security is a role that must be considered for the Naval Service from an operational perspective. I am available to engage further with the Commission on the Defence Forces to explore this topic further if required.