

# **INTEROPERABILITY CONCEPT OF INDONESIAN NAVY-INDONESIAN COAST GUARD IN NATUNA SEA REGION TO IMPLEMENT TOTAL DEFENSE STRATEGY AT SEA**

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## **ABSTRACT**

Defense is part of Indonesian national purposes mentioned in The Constitution of 1945 “to establish the government of Indonesia to protect all of Indonesian people and Indonesian region”. The Constitution of 1945 also mentioned that every (Indonesian) citizen has right and obligation to join the effort of country defense and security then titled as total defense strategy. There are two great powers in maritime sector. First is Indonesian Navy as the representative of military force and Indonesian Coast Guard as the representative of civilian force. This research aims to formulate interoperability concept between Indonesian Navy and Indonesian Coast Guard based on division of tasks supported by optimization of surveillance equipment in scope of Natuna Sea region using qualitative method. Result of the research is concept of total defense strategy system built from interoperability between Indonesian Navy and Indonesian Coast Guard supported by academician and national defense industry.

**KEYWORDS** : total defense strategy, Indonesian Navy, Indonesian Coast Guard, interoperability.

## **1. INTRODUCTION.**

There are several definitions about defense mentioned by the experts from Indonesian Navy Officer and Maritime Legal Expert. Rear Admiral (ret.) Soewarso as Indonesian Navy Officer mentioned that defense is war aims to fend off the opponent’s attack. The underlined point is equality between defense and war (Soewarso, 1981). Professor M. Kusumaatmadja as Maritime Legal Expert mentioned that defense is the effort to protect national sea region or archipelagic marine space from external threats (Kusumaatmadja, 1978). Vice Admiral (ret.) A. Kurnia as Indonesian Coast Guard Officer mentioned that national defense at sea is organization to hold sovereignty, to secure territory intact, and to protect national honor (Kurnia, 2017). Those definitions explain defense from difference point of views, from military, civilian, and semi-military, but basically there are correlation to Indonesian national purposes mentioned in The Constitution of 1945 “to establish the government of Indonesia to protect all of Indonesian people and Indonesian region”.

The Constitution of 1945 also mentioned that every (Indonesian) citizen has right and obligation to join the effort of country defense and security then titled as total defense strategy. Lieutenant General (ret.) J. Prabowo explained that the whole national components, both military and civilian, have role to be the joint strength (Prabowo, 2009). There are two great powers in maritime sector. First is Indonesian Navy as the

representative of military force and Indonesian Coast Guard as the representative of civilian force. Establishment and role of Indonesian Navy is based on the Law No. 34 of 2004, meanwhile Indonesian Coast Guard is based on the Law No. 32 of 2014. Those mean that both Indonesian Navy and Indonesian Coast Guard have equal strong legal basis. Unfortunately, there is a problem about overlapping between authorities of Indonesian Navy and Indonesian Coast Guard (Andrizal *et al.*, 2021) mainly because of overlapping their operation region. Besides that, there isn't any legal basis to regulate interoperability between those (Yolanda *et al.*, 2022). So this research aims to formulate interoperability concept between Indonesian Navy and Indonesian Coast Guard based on division of tasks supported by optimization of surveillance equipment in scope of Natuna Sea region because it is one of international sea line (ALKI I) with highly threat exhalation (Rohana, 2022).

## **2. METHODOLOGY**

This research uses combination of two methodologies, first is qualitative method and second is normative law method. The obtained data and information then analyzed by Miles and Huberman method that contain four steps; Data Collection, Data Condensation, Data Display, and Conclusion (Miles & Huberman, 2014).

### **2.1 Qualitative Method**

Qualitative method is analytical method that place the researcher as the instrument (human instrument) (Sugiyono, 2018) based on concept that human senses are the most reliable instrument to synthesize some relations in complex universe (Soewarso, 1981). Then qualitative method aims to construct phenomena and to develop theory built by field research (Sugiyono, 2018) as literature research to the primary resources and secondary resources.

### **2.2 Normative Law Method**

Normative law method is a legal research method focused on an emptiness that cause uncertainty of law (Christiawan, 2023). The uncertainty of law in this research refers to lack of legal basis to regulate interoperability between Indonesian Navy and Indonesian Coast Guard to implement total defense strategy at sea. It gives recommendation about existence of norm or regulation (Christiawan, 2023), which in this research is interoperability concept of Indonesian Navy-Indonesian Coast Guard to implement total defense strategy at sea.

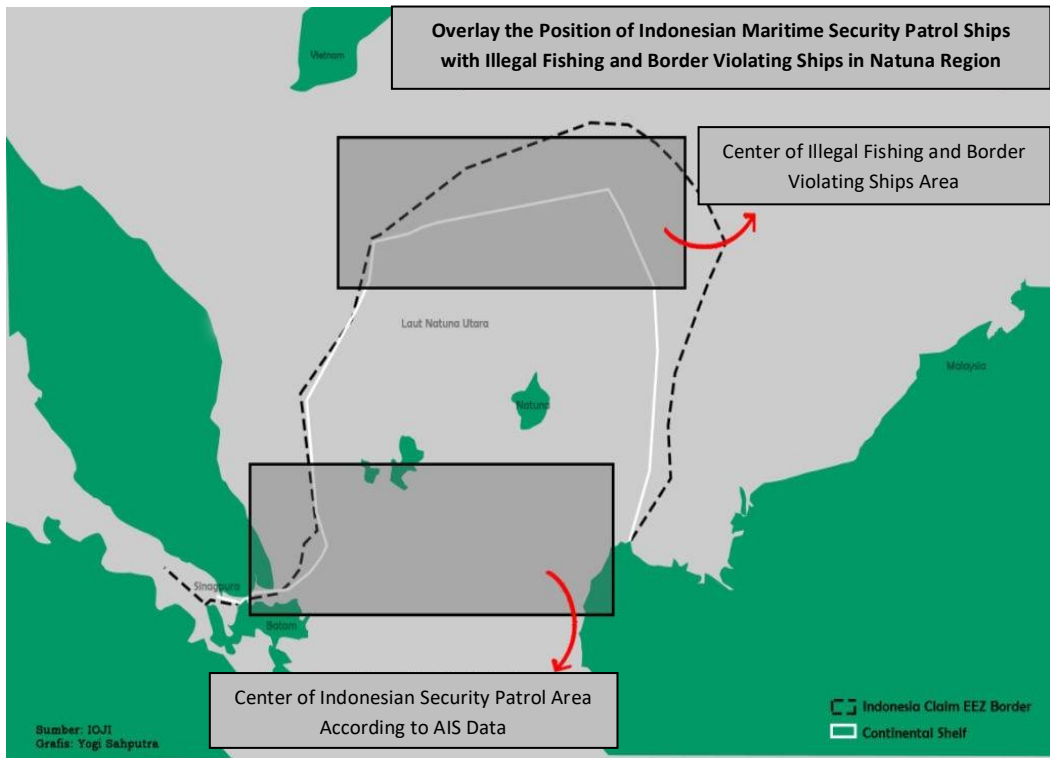
## **3. RESULT AND DISCUSSION.**

### **a. Results**

Natuna is one of Indonesian sea region that mostly called 'Indonesian Maritime Gate' (Rohana, 2022). Beside that this region is also included in maritime high priority zone (Taufiqerrochman, 2018) because of high vulnerability on illegal fishing and maritime border violation done by foreign flag ship. Sooner or later the condition will make Natuna region into Grey Zone Area, an ambiguous condition between peace and war but has potency to grow into real war (Robertson, 2022).

By comparing satellite image that show position of illegal fishing ships to Automatic Identification System/AIS data from patrol ships, there is clear gap that the position of illegal fishing and border

violating ships are on the north of Natuna region but the position of patrol ships are only concentrated on the south (Dewantara, 2019).



**Fig. 1** Map Shows the Position of Illegal Fishing and Border Violating with Security Patrol Ships

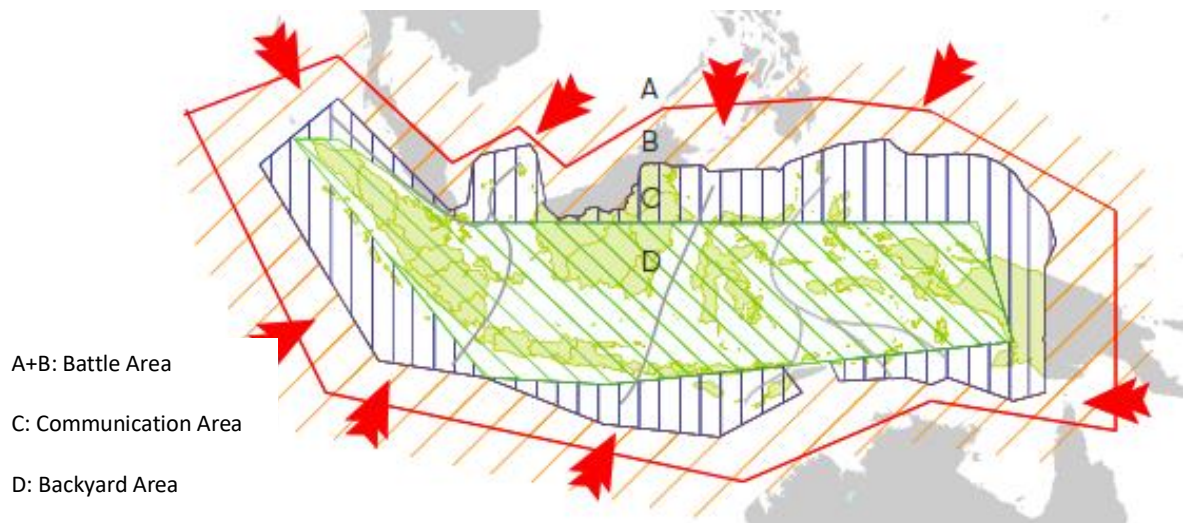
Placement of the patrol ships having still been concentrated around Batam region because there is 4<sup>th</sup> Indonesian Main Navy Quarter (Lantamal IV) equipped by class A maintenance and repair facility that available to all of war vessel (KRI) type even its weapon and command sensor, meanwhile there is only class B facility in Natuna that only available in moderate level of maintenance and repair (Suharyo & Purnomo, n.d.). Also, Indonesian Coast Guard Patrol Ships having been still placed around Batam that cause the emptiness of Natuna region (Sudiro & Jupriyanto, 2022).



**Fig. 2** Position of Indonesian Coast Guard Patrol Vessel, around West Zone (include Natuna)

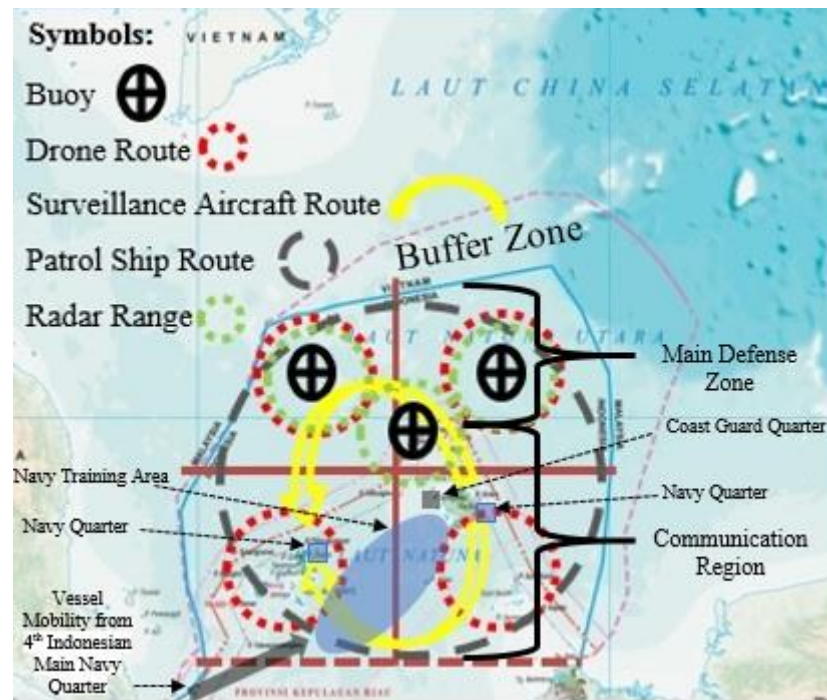
b. Discussion

That gap should be solved by formulating concept of interoperability of Indonesian Navy-Indonesian Coast Guard. Interoperability is collaboration among elements in a defined system (Dewantara, 2019). The defined system in this research refers to total defense system in Natuna region. From legality point of view, the interoperability of Indonesian Navy-Indonesian Coast Guard should be established. The Law No. 34 of 2004 mentioned that Indonesian Navy is tasks executor in sea defense field detailed as war military operations and non-war military operations. Meanwhile, the Law No. 32 of 2014 mentioned that one of Indonesian Coast Guard functions is to organize surveillance system. Both are supported by Indonesian Sea Defense Strategy that place Natuna as communication region (Widjajanto *et al.*, 2023) so that there must be built the surveillance equipment to establish security and safety at sea. In arranging the interoperability concept, strengthening its communication and coordination system are crucial (Rohana, 2022).



**Fig. 3** Illustration of Indonesian Sea Defense Strategy

According to Memorandum of Understanding (MoU) between Indonesian Navy and Indonesian Coast Guard in 2015 (maybe should be renew), there are three main points related directly to interoperability of Indonesian Navy-Indonesian Coast Guard; first is organizing security and safety operation at sea, second is using equipment, and third is sharing necessary data and information (Andrizal *et al.*, 2021). Those points, according to the Law No. 34 of 2004 and the Law No. 32 of 2014 show interoperability duty sharing between them. As the surveillance system organizer, Indonesian Coast Guard operates surveillance equipment to get all real time information about security and safety at sea. But at the increase of exhalation time, the information collected by those equipment can be shared to Indonesian Navy task force to implement war military operations and non-war military operations. Then at the normal time, the task force can be focused in operation training or maintenance and repair.



**Fig. 4** Map Shows Interoperability of Indonesian Navy-Indonesian Coast Guard

The figure 4 above shows interoperability concept of Indonesian Navy-Indonesian Coast Guard which divide Natuna region into three parts according to Indonesian Sea Defense Strategy; Buffer Zone, Main Defense Zone, and Communication Region. Inside Main Defense Zone, there are two surveillance equipment; Passive Radar and Drone operated from Floating Buoy. Passive Radar as passive equipment and Drone as active/mobile equipment monitor and control the sea region periodically. Each equipment is connected to the Coast Guard Quarter (Sudiro *et al.*, 2023) inside Communication Region. When the equipment detects an anomaly (e.g. presence of illegal ships), it will send its detection image to the Coast Guard Quarter as basis of decision making. The Coast Guard Quarter also connected with two Navy Quarters (one in Ranai and the other in Tarempa) in order to prepare for countering if there is increase of exhalation. Beside the surveillance equipment, there are patrol armada both from Indonesian Coast Guard and Indonesian Navy. Indonesian Coast Guard will operate Patrol Vessel around whole Natuna region and Surveillance Aircraft across two main islands (Natuna and Anambas), then Indonesian Navy will operate its war vessel (KRI) from the 4<sup>th</sup> Indonesian Main Navy Quarter in Tanjung Pinang into Navy Training Area (according to the Presidential Decree No. 41 of 2022) for training and preparing.

Determination of the surveillance equipment is made also based on capacity and capability of national defense industry as implementation of the Law No. 16 of 2012. Using the national products to decrease foreign dependencies will make deterrent effect. Besides that, Indonesia needs to develop the technologies independently to prevent the having fallen behind (Kumalasari, 2016). There are several national industries with capacity and capability to produce the equipment shown by Fig. 4. The industries contain of national company, private company, and research institution which connected each other in form of multi-helix relation with the government and funding institution. Those relations also implement the Total Defense Strategy as form of participation in every effort to support national defense and security according to The Constitution of 1945 and as joint role of all the national components into the joint strength (Prabowo, 2009).

The following table shows list of national industries with capacity and capability to produce (or develop) the equipment used by the interoperability concept of Indonesian Navy-Indonesian Coast Guard.

**Table 1.** List of National Industries with Capacity and Capability to Produce Surveillance Equipment

No	Industries	Equipment
1	Republic of Indonesia Defense University	Floating Buoy (produced by PT WISE)
2	Ministry of Defense (Research and Development Division)	Passive Radar (collaborated with PT LAPI ITB)
3	PT Bhinneka Dwi Persada	Drone
4	ORPA BRIN	Surveillance Aircraft
5	PT Palindo Marine	Patrol Vessel
6	PT PAL	War Vessel (KRI)

#### 4. CONCLUSION.

Conclusion of this research is the effort to prevent Natuna region into Grey Zone needs interoperability of Indonesian Navy-Indonesian Coast Guard as implementation of Total Defense Strategy at sea ordered by The Constitution of 1945. The Total Defense Strategy at sea contains of Indonesian Navy as representation of military force and Indonesian Coast Guard as representation of civilian force. The strategy also contains of multi-helix relation among national company, private company, research institution, the government, and funding institution in order to establish independency of national defense industry in producing necessary equipment (include surveillance equipment).

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## 6. ABOUT AUTHORS.

Pratondo Ario Seno Sudiro (usually called Ario or Seno) is grandson of Rear Admiral (ret.) Soewarso, M.Sc. as one of STTAL's pioneers. After graduated from the Republic of Indonesia Defense University (RIDU or UNHAN RI), started the career as strategic consultant at two institutions, the Ministry of National Building Planning (Bappenas RI) and the Ministry of Defense at the Defense Industry Policy Committee (KKIP). Since April 2024 started duty as researcher officer at Indonesian Coast Guard (Bakamla RI). Until present have published 15 scientific articles mostly about maritime security.