

Optimization of Logistics Support on Natuna Island as a Base Carrier in Uploading the Sovereignty of the Republic of Indonesia

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Abstract - Natuna Island has a strategic and important geographical position for the Unitary State of the Republic of Indonesia (NKRI), especially in maintaining maritime sovereignty in the North Natuna Sea. In facing complex challenges related to upholding sovereignty in the region, the Indonesian Navy needs reliable and efficient logistical support. Therefore, it is necessary to optimize the logistics support system which includes the procurement, storage, distribution and maintenance of the resources needed to carry out military operations on Natuna Island. This research will use qualitative and quantitative approaches by conducting field surveys, interviews with related parties, and analysis of relevant data. The research focus will include maintenance support on Natuna Island, existing supply support, base facility support, and optimal training and personnel support. The results of this study are expected to provide valuable recommendations for the Indonesian Navy in increasing the effectiveness and efficiency of logistical support on Natuna Island. By optimizing the logistics support system, it is hoped that military operations can be carried out more efficiently, strengthen the sovereignty of NKRI, and maintain security in the strategic area of the North Natuna Sea.

Keywords: logistics support, base carrier, the Republic of Indonesia.

I. INTRODUCTION

The South China Sea has now become one of the flash points in the Asia Pacific region. China as a country that has economic power and weapons is increasingly showing its activities which are marked by a number of incidents that have the potential to damage regional stability.[1][2] Natuna Island, which is located in the North Natuna Sea, has a strategic position in maintaining maritime sovereignty and security of the Unitary State of the Republic of Indonesia.[3][4] This water area is rich in natural resources, such as oil, natural gas and marine products, which are important assets for the country. To ensure the management and protection of these resources and maintain state sovereignty in the region, effective and efficient logistical support is essential. Logistical support includes the procurement, storage, distribution and management of resources and equipment needed to support various activities on Natuna Island.[5] This includes logistical support for military personnel, equipment, fuel, food, medical care, and infrastructure that supports operations and sustainability in the region. In this context, optimizing logistical support on Natuna Island is a key factor in maintaining and increasing the reliability of operations carried out by the Indonesian Navy. This optimization involves increasing the efficiency of the logistics process, improving infrastructure and storage facilities, increasing human resource capacity, and developing a good logistics management system. Good and efficient logistics support on Natuna Island will provide several important benefits. Where the Indonesian Navy troops stationed on Natuna Island have access to the resources and equipment needed to carry out their duties effectively.[6] Availability of adequate logistics will increase the preparedness and operational capabilities of troops, so that they can respond quickly to emergency situations and maintain regional security. So that logistical support will strengthen the sovereignty of the Republic of Indonesia in the North Natuna Sea. By having a reliable logistics support system, the Indonesian Navy can maintain a strong presence in the area, monitor suspicious activity, and enforce law and maritime security.

This will help prevent violations of state sovereignty and protect national interests in this sensitive area.[7] In order to improve logistical support on Natuna Island, research, development and implementation of the right strategy will be the key to success. It is necessary to carry out an in-depth analysis of the logistics needs,

including efficient procurement, secure storage and timely distribution. Infrastructure improvements and logistics facilities should also be considered to support sustainable operations on Natuna Island. By strengthening the logistical support system on Natuna Island, the Indonesian Navy will be able to better carry out its duties in safeguarding the sovereignty of the Republic of Indonesia, protecting natural resources, and facing various security challenges in the North Natuna Sea. Success in logistical support will have an overall positive impact in maintaining maritime stability and security in this strategic area.[8] For this reason, it is important to optimize the logistics support system on Natuna Island, by utilizing it as a base carrier. In this case the base carrier becomes relevant for application on Natuna Island. Base carrier is a strategic concept that describes a place or facility that functions as the main logistics center to support military operations in a certain area. In this case, Natuna Island can be used as a base carrier which plays a key role in providing and distributing the logistical support needed for Indonesian Navy operations in the North Natuna Sea.[9] In order to uphold the sovereignty of the Unitary State of the Republic of Indonesia, the Navy has a very important role. The Indonesian Navy is tasked with maintaining the security of Indonesian waters, protecting sea areas, and conducting operations to defend national sovereignty.[10] In this context, optimal logistical support is a crucial factor in supporting the Indonesian Navy's operations and maintaining the sovereignty of the Unitary State of the Republic of Indonesia.

Natuna Island, which is located in the North Natuna Sea, is a strategic area that is in the spotlight in maintaining Indonesia's maritime sovereignty.[11] The region has abundant natural resource potential, including oil, natural gas and valuable marine products. Therefore, the presence and operations of the Indonesian Navy on Natuna Island are very important to maintain and protect the wealth of natural resources and uphold the sovereignty of the Unitary State of the Republic of Indonesia.[12] In order to support the Indonesian Navy's operations on Natuna Island, optimizing logistical support is a top priority. Effective logistical support involves procuring, storing, distributing, and managing the logistical resources necessary for the successful conduct of military operations. This includes aspects such as supplies of ammunition, equipment, fuel, food, medical care, and other needs needed by Indonesian Navy personnel. Optimal logistical support on Natuna Island is important to ensure that the Indonesian Navy has the availability and accessibility of adequate resources to carry out its operations. Good logistics infrastructure, reliable storage facilities, and an efficient distribution system are key factors in supporting smooth operations and maintaining a high level of preparedness. In addition, optimal logistical support on Natuna Island also has an important role in maintaining and upholding the sovereignty of the Republic of Indonesia in the North Natuna Sea. By having a reliable logistical support system, the Indonesian Navy can strengthen its presence and presence in this region. Effective military operations, careful monitoring of suspicious movements, and law enforcement and maritime security will significantly enhance the Indonesian Navy's ability to maintain the sovereignty and security of this strategic water area.[13] Research and development of appropriate logistical support strategies will be an important foundation in optimizing logistical support on Natuna Island. A holistic and integrated approach is needed in identifying logistics needs, improving relevant infrastructure and facilities, and involving increasing the capacity of human resources involved in logistics operations. By optimizing logistical support on Natuna Island, the Indonesian Navy will have better capabilities in carrying out operations, protecting natural resources, and upholding the sovereignty of the Republic of Indonesia in the North Natuna Sea. Success in maintaining and strengthening the sovereignty of the Republic of Indonesia in this region will have an overall positive impact on regional stability, national interests and Indonesia's maritime security.[14]

II. METHOD

This research will use qualitative approaches by collecting data through field surveys, interviews with related parties, and analysis of relevant data.[15][16] The data collected will be analysed in a comprehensive manner to provide an in-depth understanding of the logistical conditions on Natuna Island and to identify areas where improvements and optimizations can be made. With the results of this research, it is hoped that valuable recommendations will be produced for the Indonesian Navy in increasing logistics maintenance support on Natuna Island. Optimizing the logistics support system will help ensure that the Indonesian Navy forces have access to supply support, adequate base facility support and adequate personnel and training support, so that they can carry out military operations more efficiently. In addition, success in supporting the Indonesian Navy's operations on Natuna Island will strengthen the sovereignty of the Republic of Indonesia and maintain security in the strategic area of the North Natuna Sea. Thus, this research is expected to make a significant contribution to the development of a logistics support strategy on Natuna Island as a base carrier, and to become a reference for the government's efforts to improve maritime security and uphold the sovereignty of the Republic of Indonesia in the North Natuna Sea region.

III. RESULT AND DISCUSSION

Indonesian Warships will be effective if the distance between projecting power to the operational field or towards the enemy is getting closer. This means that the front axle still functions for the purpose of shortening the distance or as an extension of the base. The demand for the presence of elements of Indonesian warships at sea, which means the demand for increased mobility, of course, must be accompanied by improvements or improvements in the determination of technical conditions. This should also be followed by efforts to increase the pattern of logistical support, especially maintenance support, supply support, base facility support as well as personnel and training support. Base logistical support for the Indonesian Navy's operations units, especially elements of Indonesian Warships, requires higher readiness and alertness, so that these bases must have more productive support capabilities. Going forward, a base is expected to be able to anticipate the development of existing Indonesian Warships accompanied by the implementation of logistics management, namely the support of timely, quality, fast material to the right location, availability of facilities, transportation readiness, inventory, coordination, management, storage and efficiency. On a level basis, it can be said that base logistical support should always adapt to developments in the advancement of weapons systems and technological advances in their own environment or domestically and abroad without neglecting the development of the 5R function (Rebase, Repair, Replenishment, Rest and Recreation).

A. Maintenance Support

Maintenance support for elements of the Republic of Indonesia Ships as part of the base logistics support that is carried out is expected to be more optimal than the current conditions. For this reason, it is also necessary to be accompanied by an additional adequate budget allocation in accordance with the planned proposal, so that the readiness of the elements of the Republic of Indonesia's Vessels to operate will be more. Faced with the existence of the Republic of Indonesia's new Ship Armament System which is owned by the Indonesian Navy, in order to support the implementation of maintenance and repairs carried out by the Ship's Crew, the fulfilment of the supply of spare parts or On Board Spare is very necessary. Meanwhile, maintenance and repair facilities are needed if the ship cannot carry out repairs on its own. For non-defines equipment support so that budget allocations can be given to improve the function of the base in supporting the base function by planning the maintenance and maintenance of the base.

B. Supplying Support

The method of organizing the logistics of the Indonesian National Armed Forces, namely centrally and organically, can be put to good use in supporting the fulfilment of material supplies and is expected to be able to fulfil several classes or even almost all of them: Procurement of supplies from class I to class X organically is expected to be able to support the needs in material development to increase the ability of the Republic of Indonesia Ship Weapon System Main Tools and non-Main Weapon System Tools to be more effective, right quality, right amount, right on time and right on target for then quickly distributed. In terms of the effectiveness and efficiency mentioned above, the role of local or decentralized procurement can be utilized more, provided that the type of material procurement has been determined and complies with the terms and conditions. This can be carried out with existing procurement/derived from local sources, the considerations for implementing local procurement are to be able to save time and transportation, obtain cheaper prices, accommodate emergency matters, ensure that obstacles in the field of supplies can be pressed as little as possible; Fulfilment of material which is still limited to class III, especially in terms of fuel support in order to overcome the quantity, and there are still delays in it is hoped that the fulfilment of provisions can already be fulfilled in all class I to X provisions on a medium scale. The material shift of these supplies from the Central Supplies Depot to the Sub-Supply Depot if in large quantities can be empowered by Republic of Indonesia Vessels from Military Maritime Command or can be deposited in stages to elements of Republic of Indonesia Ships operating in the Natuna Sea departing from Jakarta. To fulfil the quantity of fuel and lubricants, fulfilment must be carried out which must exceed previous years with reference to the total shortage requested by the Republic of Indonesia Ship elements.

C. Base Facility Support

The Indonesian Navy's base as an integral part of the Integrated Fleet Weapons System is the spearhead in supporting the success of the tasks of the Indonesian Navy's operations units in peacetime as well as in war/emergency times. So that the Base should be able to carry out its functions to provide optimal logistical support for the smooth operation of the Indonesian Navy along with other components of the Integrated

Fleet Weapon System, namely Republic of Indonesia Ships, aircraft and marines, among others: Docking Facilities In order to be able to optimally support the KRI operations which will carry out the re-stocking process, it is necessary to improve the anchoring facilities; Provisioning Facilities The concept of an integrated base built on Natuna Island must be able to support the logistics needs of three dimensions, namely land, sea and air. Therefore efforts must be made to solve problems in the pattern of material support for class I to X class supplies on Natuna Island as an integrated base; Maintenance and Repair Facilities are all businesses and activities whose role is to maintain materials and facilities in a ready-to-use condition or to return them to a ready-to-use condition. In the absence of maintenance and repair facilities on Natuna Island, it is necessary to develop maintenance and repair facilities.

D. Personnel Support and Training

With the dynamics of increasingly difficult tasks resulting from an increase in potential threats in the South China Sea, an adequate composition of personnel is needed. Therefore, in order to be able to carry out their duties properly as an integrated base, it is hoped that in terms of quantity, the List of Personnel Compositions can be fulfilled at least above 75% and for the fulfilment of the criteria for personnel who are able to carry out their duties and responsibilities, the placement of personnel must be in accordance with their abilities and expertise according to their competence. . In addition, the placement of positions must be in accordance with the rank of personnel in the List of Personnel Composition so that the implementation of their duties does not encounter obstacles. To obtain the quality of personnel according to their abilities, this can be done by taking courses or education for both Officer and Non-Officer and Private levels in accordance with the expertise needed to occupy existing positions in supporting the implementation of their duties.

E. Contribution

By achieving the optimization of logistical support for the Indonesian Navy on Natuna Island as a base carrier, it will contribute to the readiness of the Indonesian Navy to carry out operations in order to uphold the sovereignty of the Republic of Indonesia the South China Sea region:

- 1) With good maintenance support in the form of achieving maintenance schedules according to time and sauced which are fulfilled according to needs and supported by the completeness of maintenance and repair facilities on Natuna Island, it will contribute to the readiness of the Indonesian Navy to carry out operations in this case Republic of Indonesia Ships to uphold the sovereignty of the Unitary State of the Republic Indonesia.
- 2) With the support of good supplies ranging from class I to class X supplies starting from procurement to distribution on time and in quantity, it will contribute to the readiness of the Indonesian Navy to carry out operations in this case Republic of Indonesia Ships I to uphold the sovereignty of the Unitary State of the Republic of Indonesia.
- 3) Support for base facilities that are in accordance with the standardization of the Indonesian Navy base starting from anchoring facilities, maintenance and repair facilities, personnel maintenance facilities, debriefing facilities and base training facilities will contribute to the readiness of the Indonesian Navy to carry out operations in this case Republic of Indonesia Ships to uphold State sovereignty Unitary Republic of Indonesia.
- 4) Good personnel support and training in the form of achieving the quantity of personnel according to the DSP and the quality of personnel who are able to carry out logistical support in a reliable and professional manner will contribute to the readiness of the Indonesian Navy to carry out operations in this case the Ship of the Republic of Indonesia to uphold the sovereignty of the Unitary State of the Republic of Indonesia.

F. Indicator of Success

An indicator of the success of the pattern of logistical support for the Indonesian Navy on Natuna Island is the fulfilment of maintenance support, supply support, base facility support and personnel support and training for the Indonesian Navy's operational units, in this case the Republic of Indonesia Ships which are carrying out operations in the South China Sea region to uphold the sovereignty of the Unitary State of the Republic of Indonesia. Indicators of success in fulfilling maintenance support, supply support, base facility support and personnel support and training include:

- 1) Maintenance support. Fulfilment of maintenance on schedule and repair according to needs as well as complete maintenance and repair infrastructure facilities.

- 2) Provisioning support. Fulfilment of the need for stock materials ranging from class I to X in full normal manner without obstacles to the process of re-stocking and fulfilling it correctly and completely according to the needs proposed by the Republic of Indonesia Vessel.
- 3) Base facility support. Fulfilment of anchoring facilities starting from the wharf of various capacities complete with berthing facilities. Fulfilment of the maintenance and repair facilities required by the Republic of Indonesia Ships with complete facilities and infrastructure for Maintenance and Repair Facilities, so that when elements of the Republic of Indonesia Ships require handling repairs that cannot be carried out by the Ship's Crew, the Maintenance and Repair Facilities can help solve repair problems and not technicians need to be sent by the central municipality. Fulfilment of provisioning facilities for classes I to X that are complete and adequate. Fulfilment of personnel care facilities. Starting from health facilities and adequate shelter/messages for personnel carrying out operational duties. Fulfilment of base training facilities in the form of service and transportation facilities for transportation facilities that can support the logistics function for the needs of supplies and maintenance of Republic of Indonesia Ship elements.
- 4) Personnel support and training. The fulfilment of the quantity of personnel according to the List of Personnel Composition reaches a minimum of above 75% and the quantity of personnel who are reliable and professional in carrying out logistical support activities

G. Solution to problem

The potential for attacks on the cyber sector is currently the case both throughout the world and in Indonesia itself is currently increasingly massive. Cyber-attacks themselves are of various types when viewed from the perpetrators and also their goals. Cyber-attacks can be carried out by individuals or even at the organizational or corporate level, maybe even at the country level. Meanwhile, the objectives are also very diverse, from trivial purposes such as curiosity from individuals or even to very serious goals such as espionage or sabotage in a more macro scope such as state information. Cyber-attacks in quantity are currently very massive followed by potential losses that are quite large if the objectives also vary from harmless to very dangerous in the national defence sector. When viewed from a macro perspective, namely national defence, cyber-attacks are of course a pretty serious threat. The use of technology, especially the internet, has now penetrated all sectors of human life, including the government sector. Assets in the form of digital information are things that have the potential to be taken and misused by other parties. Therefore it is very crucial for the country to have the capability and system to prevent cyber-attacks in the national defence effort. The Indonesian National Armed Forces as the front guard institution in the structure of national defence, ideally also has the ability to be able to expand the scope of focus on preparations in the national defence effort.

1) Policy

To increase the readiness of the Indonesian Navy to carry out operations in the South China Sea operational area in order to uphold the sovereignty of the Unitary State of the Republic of Indonesia, it is necessary to formulate a policy on the pattern of logistics support for the Indonesian Navy on Natuna Island as the base carrier. Policies are prepared based on the current conditions and problems found in the pattern of logistical support for the Indonesian Navy. However, with the development of a very dynamic, fluid and fluctuating strategic environment, opportunities and constraints are inevitable in achieving the desired goals. These opportunities and constraints must be utilized as well as possible in order to achieve the desired goal, namely the upholding of the sovereignty of the Unitary State of the Republic of Indonesia. Therefore, the formulation and arrangement of a pattern of logistical support on Natuna Island as a base carrier in order to increase the readiness of the Indonesian Navy to carry out operations in the framework of upholding the sovereignty of the Republic of Indonesia needs to be directed towards policies, namely:” The realization of optimizing the pattern of logistical support for the Indonesian Navy on Natuna Island as a base carrier through increasing maintenance support, supplying support, base facility support and personnel support as well as training to support the Indonesian Navy's operational title in order to uphold the sovereignty of the Unitary State of the Republic of Indonesia”.

2) Strategy

The meaning of the strategy is essentially an activity plan designed to achieve the ultimate goal of a goal along with an assessment system for achieving it. In general, the strategy can be interpreted as a way to achieve a goal with the available means. Based on the policies that have been stipulated, a strategy is then determined to be taken in order to optimize the pattern of logistical support on Natuna Island in order to support the Indonesian Navy's Navy operations in order to uphold the sovereignty of the Unitary State of the Republic of Indonesia. Based on the policy directions that have been formulated, then an analysis is carried out on the logistical theories that are in the rationale to determine the right strategy to

optimize the pattern of logistical support on Natuna Island to support the Indonesian Navy's operations in the context of upholding the sovereignty of the Unitary State of the Republic of Indonesia. The strategy set is as follows:

- a) Strategy 1: Realizing increased maintenance support through regulation, coordination, evaluation and cooperation by means of maintenance on schedule, fulfilment of maintenance sauced according to needs and fulfilment of complete maintenance and repair facilities to support the readiness of the Indonesian Navy to carry out operations in order to uphold the sovereignty of the Unitary State of the Republic of Indonesia: The Indonesian Navy carries out evaluations of the Planned Maintenance System on a regular basis based on technological developments and the latest capabilities of the main weapons systems owned by the Indonesian Navy.
 - b) Strategy 2: Realizing increased supply support through regulation, coordination, socialization and cooperation by means of determining needs, procurement, storage, distribution, maintenance and disposal that are good and in accordance with the rules to support the readiness of the Indonesian Navy to carry out operations in order to uphold the sovereignty of the Unitary State of the Republic of Indonesia.
 - c) Strategy 3: Realizing increased support for base facilities through regulation, modernization and cooperation by modernizing base facilities, building facilities and infrastructure and fulfilling base logistical support to support the readiness of the Indonesian Navy to carry out operations in order to uphold the sovereignty of the Unitary State of the Republic of Indonesia.
 - d) Strategy 4: Realizing an increase in personnel support and training through regulation, evaluation and education by fulfilling the quantity of personnel according to the DSP, training and education of personnel to support the readiness of the Indonesian Navy to carry out operations in order to uphold the sovereignty of the Unitary State of the Republic of Indonesia.
- 3) Effort: Efforts that must be carried out in following up on the policies and strategies mentioned above to optimize the pattern of logistical support on Natuna Island in order to support the Indonesian Navy's operations in order to uphold the sovereignty of the Unitary State of the Republic of Indonesia are:
- a) Efforts to realize strategy 1, namely realizing increased maintenance support through regulation, coordination, evaluation and cooperation by means of maintenance on schedule, fulfilment of maintenance according to needs and fulfilment of complete maintenance and repair facilities to support the readiness of the Indonesian Navy's operational degree in order to uphold the sovereignty of the Unitary State of the Republic of Indonesia:
 - b) Efforts to realize strategy 2, namely realizing an increase in supply support through regulation, coordination, socialization and cooperation by means of determining needs, procurement, storage, distribution, maintenance and disposal that are good and in accordance with the rules to support the readiness of the Indonesian Navy's operational degree in order to uphold the sovereignty of the Unitary State of the Republic of Indonesia; The Indonesian Navy prepares a plan for needs that is appropriate and in accordance with the requests of the user units so that it is hoped that the material provisions will be right on target and useful for user units operating in the Natuna Island area. What class of supplies are appropriate and needed by the KRI carrying out operations on Natuna Island must be planned precisely and thoroughly
 - c) Efforts to realize strategy 3, namely realizing increased support for base facilities through regulations, modernization and cooperation by means of modernizing base facilities, building facilities and infrastructure and fulfilling base logistical support to support the readiness of the Indonesian Navy to carry out operations in the context of upholding the sovereignty of the Unitary State of the Republic of Indonesia: Carry out planning in modernizing base facilities on Natuna Island in accordance with the current capability of the Indonesian Navy's main weaponry system; The Indonesian Navy plans and implements the construction of facilities and infrastructure capable of supporting Natuna Island as a base carrier to support operational unit logistics; The Indonesian Navy is carrying out logistical support on Natuna Island. Proper base logistical support will increase the operational capabilities of combat units so that the defence and security of the national jurisdictional sea area, especially in the Natuna Sea, will be maintained.
 - d) Efforts to realize strategy 4 are realizing an increase in personnel support and training through regulation, evaluation, and education by fulfilling the quantity of personnel according to the list of personnel composition, training and education of personnel to support the readiness of the Indonesian Navy's operations degree in order to uphold the sovereignty of the Unitary State of the Republic of Indonesia: The Indonesian Navy stipulates regulations in the distribution of personnel positions,

especially to fill bases that are considered vulnerable and a priority; The Indonesian Navy conducts education and training for personnel to increase the professionalism of soldiers.

IV. CONCLUSION

To achieve optimization of logistical support on Natuna Island as a base carrier, it is necessary to make improvements in the maintenance and maintenance of Republic of Indonesia Ship elements, fulfilment of adequate supply of spare parts, and improvement of maintenance facilities. In addition, an adequate budget allocation is also an important factor in supporting the base function in maintaining the sovereignty of the Unitary State of the Republic of Indonesia. Thus, this effort will make a positive contribution in maintaining maritime security, protecting natural resources, and upholding the sovereignty of the Republic of Indonesia in the North Natuna Sea.

The need to optimize the method of organizing the Indonesian National Armed Forces logistics in fulfilling material supplies on Natuna Island, including local procurement and fulfilment of fuel and lubricant quantities. With the right steps, it is hoped that logistical support can be increased to support the Indonesian Navy's operations in maintaining the sovereignty of the Republic of Indonesia in the North Natuna Sea.

The need to increase supporting facilities for the Indonesian Navy base on Natuna Island, including berth facilities, material supply facilities, and maintenance and repair facilities. This increase will help improve the effectiveness of logistical support and operational capabilities of the Indonesian Navy in maintaining the sovereignty of the Republic of Indonesia in the North Natuna Sea.

Fulfilment of adequate and qualified personnel composition in the integrated base is very important. In this case, the fulfilment of the number of personnel is expected to reach predetermined targets, and the placement of personnel must be in accordance with their abilities and expertise. Through appropriate training and education, personnel can improve their quality and ability to support tasks in an integrated base. Thus, the conclusion from the material above is the importance of personnel support and training in maintaining the success of the Indonesian Navy's operations on Natuna Island and upholding the sovereignty of the Republic of Indonesia in the North Natuna Sea.

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