

# Indonesian National Aircraft Maintenance (Policy Study on the Implementation of Military Feasibility to Support National Defense)

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**ABSTRACT:** This study aims to describe and analyze the implementation of policies and the factors that support and impede the implementation of aircraft maintenance policies based on Minister of Defense Regulation Number 33 of 2014 concerning the Implementation of Military Eligibility to Support National Defense for Air Squadron 4. This study will be conducted by Squadron Air 4. This study employs a qualitative approach and a case study design. Location determination This research is predicated on the notion that the 4th Air Squadron is an organization that operates and performs aircraft maintenance on aircraft that are reliable enough to support strategic missions in remote/pioneer locations. Implementation of Ministry of Defense Policy No. 33 of 2014 Regarding the Military Eligibility to Support National Defense in the Implementation of Aircraft Maintenance in the Air Squadron 4 Environment is carried out effectively. This implementation procedure consists of human qualification and maintenance processes based on air engineering regulations from the koharmatau and manufacturer technical directives. There is a favourable effect. As a result of the implementation of Ministry of Defense Policy No. 33 of 2014 regarding the Implementation of Military Eligibility to Support National Defense in the Implementation of Aircraft Maintenance in the Air Squadron 4 environment, inspectors will have a solid foundation to support the implementation of maintenance activities and will increase maintenance implementation performance. Several supportive factors and impediments influence both the internal and external environments of Air Squadron 4. Human resources, maintenance management, and materials contribute to supporting and hindering aspects.

**KEYWORDS:**Aircraft, Maintenance, Military Feasibility

## I. INTRODUCTION

Air transportation is one of the primary requirements for connecting islands. Therefore, aeroplanes are one of the most effective forms of air transportation, aside from serving as a link between islands. Aircraft are also essential to Indonesia's defence system, particularly in the air sovereignty zone. Due to the expansive airspace of the Unitary State of the Republic of Indonesia, this is the case. In the Law of the Republic of Indonesia Number 3 of 2002 About the National Defense System, it is stated that the National Defense is a universal defence system that involves all citizens, territories, and other national resources and that is prepared early by the government and carried out in a total, integrated, directed, and continuous manner to defend state sovereignty, territorial integrity, and the safety of the entire nation against any threats. National defence seeks to preserve and protect the state's sovereignty, the territorial integrity of the Unitary State of the Republic of Indonesia, and the security of the entire nation against all types of danger. Thus, all national defence implementation activities must reference these objectives. Therefore, the purpose of national defence is to materialize and protect the entire territory of the Unitary State of the Republic of Indonesia as a single defensive unit.

The Indonesian Air Force is one of the primary national defence components with missions, functions and duties. The Indonesian Air Force plays a part in implementing state defence as a method of state defence in the air dimension under the national jurisdiction. In dealing with military threats, the Indonesian Air Force is the main component supported by reserve and

supporting components. In contrast, in dealing with non-military threats, the Air Force acts as law enforcement and security in the air, empowering air defence areas and providing government agencies with supporting elements. Outside of the defence industry as the core of the nation's air power, the Indonesian Air Force is tasked with providing air defence for the nation. The Indonesian Air Force perceives the air defence area as a coherent body.

Air Squadron 4, headquartered at Abd. Saleh Air Base in Malang City is one of the Indonesian Air Force units responsible for upholding the Republic of Indonesia's air sovereignty. To support all duties, roles and functions. Air Squadron 4 employs light transport aircraft, specifically C-212 aircraft, with a strength of 16 aircraft to defend the Republic of Indonesia's sovereignty. Regular maintenance must be performed on this aircraft in order for it to function optimally. Law No. 1 of 2009 about Aviation states that licensed aviation maintenance engineers may only perform aircraft maintenance, aircraft engines, aircraft propellers, and their components. Maintenance is a crucial component of aviation safety. This maintenance must be performed since each component has a maximum age, after which it must be replaced. In addition, components that are found to be broken must be fixed. In general, maintenance programs can be separated into two distinct categories: preventive and corrective. Aircraft maintenance is a component of aircraft

maintenance implementation [1]. The Government Regulation of the Republic of Indonesia of 2021 concerning the Implementation of the Aviation Sector also regulates the implementation of aircraft maintenance that aims to create airworthiness and flight safety. Airworthiness is fulfilling the design requirements for the aircraft type and in a safe operating condition.

To assist the implementation of maintenance, it is essential to implement the Minister of Defense Number 33 of 2014 concerning the Implementation of Military Eligibility to Support National Defense. This rule determines the suitability of the equipment and spare components used in military operations. It is taking into account that the systematic and coordinated implementation of military feasibility for diverse national defence commodities will be able to provide operationally-ready facilities and infrastructure. Military Airworthiness is a form of applying the nature of airworthiness to Military Commodities, production facilities, and maintenance facilities so that they can be operated or utilized safely by their basic design and purpose within a specified timeframe. Implementing the Ministry of Defense is anticipated to boost the results of Air Squadron 4's aircraft maintenance. According to the acquired data, Air Squadron 4 operates sixteen aircraft that are all in airworthy condition. These are described in the table below:

**Table 1: Aircraft flown by Flight 4**

No.	Aircraft Type	Amount	Operational Squadron
1.	Casa C-212	16 (Capable of operating 16 units)	4 Air Squadron
<b>Total</b>		16 Aircraft Units	

The following aircraft maintenance flowchart is based on Minister of Defense Number 33 of 2014 concerning the Implementation of Military Eligibility to Support National Defense.



**Figure 1: Aircraft Upkeep Flowchart**

There are numerous issues and occurrences in the implementation of this policy. Impossible-to-obtain replacement parts are a vital

component of aircraft maintenance, and these issues hurt it. At the same time, the advantage is that it can facilitate routine maintenance. Based on

the implementation of Minister of Defense Order No. 33 of 2014, Implementation of Military Eligibility to Support National Defense. Some of the implementers of this policy include Kasihar, who is responsible for maintenance management, DanflightHar as maintenance implementer, Head of Subsikal as supervisor of spare parts usage, Kasiops and Dan Flightops as pilots/aircraft users, who will provide information and inputs that will undoubtedly be of great assistance in writing this study. This sparked the author's curiosity to research this topic. This topic was chosen since aeroplane maintenance is the primary means of ensuring aviation safety. It is hoped that future aircraft maintenance will be more efficient and that there will continue to be no accidents.

## II. LITERATUR REVIEW

### 2.1 Public Policy Concepts

According to [2], a policy is a written guideline that is a formal, binding decision of the organization that controls conduct to establish new societal norms. Members of the organization or community will mostly turn to the policies when deciding how to behave. Policies are typically proactive and problem-solving. In contrast to Laws and Regulations, policies are more adaptable and interpretive, yet they also regulate "what is permitted and what is not" It is also expected that policies will be generic without sacrificing local features. Policies must allow for interpretation based on the particular circumstances that occur. According to [3], the policy is a permanent choice characterized by the consistent and repeatable behaviour of individuals who adhere to the decisions.

Moreover, [4] concludes that the policy comprises fundamental components, including objectives, proposals, programs, decisions, and safeguards. [5] cites the opinion of James [6] regarding the public policy process, stating that the public policy process includes problem formulation; what is the problem? What makes this a problem of policy? How can the administration incorporate this issue into its agenda? Policy formulation: How to develop options or alternatives for problem resolution. Who contributes to the formulation of policy? How are policy determination (adoption) alternatives defined? What conditions or standards must be met? Who will put the policy into effect? What are the contents of the established policies? Who is involved in the implementation of the policy? How are they behaving? What is the impact of the policy's content? How is the degree of success or influence of the policy measured? Who assesses the

policy? What are the repercussions of evaluating a policy? Is there a need for alterations or cancellations? How is the degree of success or influence of the policy measured? Who assesses the policy? What are the repercussions of evaluating a policy? Is there a need for alterations or cancellations? How is the degree of success or influence of the policy measured? Who assesses the policy? What are the repercussions of evaluating a policy? Is there a need for alterations or cancellations?

### 2.2 The Theory of Public Policy Implementation

Implementation of public policy is defined by [7] as acts in earlier choices. These actions include efforts to convert policy decisions into operational actions within a specified time frame, as well as ongoing efforts to make significant and minor changes decided by policy decisions made by public entities that are intended to fulfil the established goals. A comprehension of implementation might be related to regulations or policies geared at the general public's or society's best interests. Implementation, according to [8], "Those Activities directed toward putting a program into effect" (the process of realizing a program to demonstrate results), while according to Horn and Meter: "Those actions by public and private individuals (or groups) that are achievement or objectives set by prior policy" (actions taken by the government). In the meantime, the Webster Dictionary [9] explains the meaning of implementation as follows: "Implementation, which is a translation of the word "implementation," derives from the verb "to implement." The verb "to implement" derives from the Latin "implementation" from the origin of the word "empire," which means "to fill up" or "to fill in," which means to fill in completely, while "place" means "to fill," In addition, "implement" is supposed to mean: "to put into action, to fulfil, to accomplish. To furnish with the means for carrying out or carrying out completely; to give practical effect. First, to implement means to "bring to fruition (effect), finish and finish." The second meaning of "implement" is to "give the means (tools) to carry out something, to offer actual results for anything." Third, the purpose of implementation is to offer or complete tools. According to [10], four aspects influence implementation performance: environmental conditions, inter-organizational interactions, resources, and the nature of the implementing institutions (characteristic implementing agencies).

### 2.3 Model for Public Policy Implementation

Several models can be used as a guide for the implementation of the policy. According to [11], the literature on policy implementation is often classified into two groups: top-down and bottom-up. Groups with a top-down perspective consider policy creators the most critical players in policy implementation. The top-down group is likewise concerned with centrally-manipulable variables and macro variables.

### 2.4 Maintenance Management

Maintenance management generally involves planning, organization, staffing, program implementation, and control of maintenance activities. Activities aimed at optimizing maintenance performance by increasing the reliability and availability of a system or piece of equipment using effective planning, organizing, workforce regulation, monitoring, and evaluation. Breakdown maintenance, routine maintenance, corrective maintenance, preventive maintenance, and predictive maintenance are distinct types.

### 2.5 Regarding the Implementation of Military Eligibility to Support National Defense.

According to Minister of Defense Regulation Number 33 of 2014 Concerning the Implementation of Military Eligibility to Support National Defense, the eligibility requirements are as follows: The implementation of Military Eligibility must provide accurate and maximum benefits to support the achievement of the material development goals and objectives of the Ministry of Defense and Indonesian National Military. The Military Airworthiness procedure must be able to guarantee a dependable degree of safety by the Design and Construction and material human roles of the Ministry of Defense and the Indonesian National Military. Military Airworthiness Operators must meet the requirements for expertise, a mark of eligibility qualification, and competency standards to enforce eligibility procedures and be held professionally accountable. Military Commodities resulting from the acquisition, maintenance/repair, modifications, grants, production facilities, and maintenance facilities both domestically and internationally within the Ministry of Defense and the Indonesian National Military must be certified as Military Eligible. The Ministry of Defense Baranahan Center must give a certificate of eligibility for the Military Commodities industry to domestic defence industries that produce military commodities. By applicable legislation, the Ministry of Defense and Indonesian National Military Baranahan Center

must procure National Defense-related goods from outside the Ministry of Defense and Indonesian National Military. This Ministry of Defense's guiding principles is Accuracy, Universality, Objectivity, and Centralization. Must possess a Military Commodity Industrial Feasibility Certificate from the Baranahan Center of the Ministry of Defense. By applicable legislation, the Ministry of Defense and Indonesian National Military Baranahan Center must procure National Defense-related goods from outside the Ministry of Defense and Indonesian National Military. This Ministry of Defense's guiding principles is Accuracy, Universality, Objectivity, and Centralization. Must possess a Military Commodity Industrial Feasibility Certificate from the Baranahan Center of the Ministry of Defense. By applicable legislation, the Ministry of Defense and Indonesian National Military Baranahan Center must procure National Defense-related goods from outside the Ministry of Defense and Indonesian National Military. This Ministry of Defense's guiding principles is Accuracy, Universality, Objectivity, and Centralization.

### 2.6 Relevant Past Studies

Several past studies are pertinent to this investigation. Among these is the 2019 study titled Public Policy Implementation from the Perspective of Monitoring Implementation undertaken by IsyaNuriyahAgindawati. According to this study's findings, implementing a government administration policy is an integral part of the entire phases and process of public policy. Conceptually, implementing a policy consists of accumulating resources (natural, human, and financial) and then defining the activities that must be taken to attain policy objectives. In 2020, PutriMutiaraRakista will conduct research titled Implementation of the Smart Indonesia Program Policy (Case Study in Elementary Schools in Banyumas Regency). Implementation of the Smart Indonesia Program at the elementary school level in Banyumas Regency has been proceeding well, as indicated by the excellent implementation of the implementation process, which is analyzed using aspects of goal suitability, policy actor tasks, and policy target suitability. In implementing the Smart Indonesia Program at the elementary school level in the Banyumas Regency, several factors are both supportive and inhibiting.

## III. METHODOLOGY

The outcomes of the research are reported using a qualitative research approach and a case study format. This study employs a qualitative

approach to understand better the occurrences and problems that develop. The researcher interviewed the research participants to comprehend the central phenomenon by posing general and somewhat broad questions. The acquired data then takes the shape of words or text. This information collection is then analyzed. Using the results of the analysis, the researchers compare their findings to those of earlier studies conducted by other scientists. The conclusive findings of qualitative research are reported in a written report. Case study design, as the research outcomes, are context-based, and no attempt is made to generalize. In addition, virtually all qualitative research consists of case studies. Case studies were selected as a research technique because they have their niche in evaluative research [12]. Moreover, case studies enable researchers to engage continuously between the theoretical concerns under investigation and the obtained facts. Case studies also permit the use of many sources of evidence in the study of events occurring in real-world contexts. Case studies allow researchers to interact continuously between the investigated theoretical issues and the acquired facts. Case studies also permit using many sources of evidence to study events occurring in real-world contexts. Case studies allow researchers to interact continuously between the investigated theoretical issues and the acquired facts. Case studies also permit using many sources of evidence to study events occurring in real-world contexts.

**3.1 Investigate Sites**

This study will be conducted by Air Squadron 4. The selection of this study location is based on the fact that Air Squadron 4 runs and performs aircraft maintenance on a dependable aircraft used to support vital missions in remote/pioneer locations. Therefore, Air Squadron 4 must always perform optimal maintenance so that

the Indonesian Air Force can continue to perform its tasks and functions. This investigation was conducted at Abd. Saleh Air Base Malang in East Java. The research period begins in May 2021 and ends in January 2022.

**3.2 Research Emphasis**

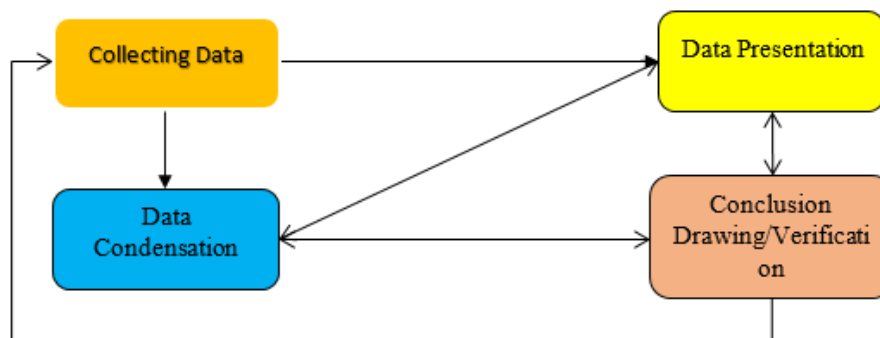
Implementation of Minister of Defense Number 33 of 2014 Concerning the Implementation of Military Eligibility to Support National Defense is the topic of research in this study, with categories covering aircraft maintenance mechanisms, coordination, human resources, and supplies. Based on the philosophy of aircraft maintenance management, Internal Things consist of aircraft maintenance processes, coordination, and people and material resources, among other factors. External variables include aircraft maintenance mechanisms, coordination, and people and material resources.

**3.3 Informants and Data Collection Tactics**

In a study, the research subjects or respondents serve as samples. Several individuals who served in the 4th Air Squadron were this study's participants and acted as data collection informants. Data gathering procedures were utilized, including interviews, observation, and documentation. These three strategies are utilized to acquire data and information that support and complement each other about implementing Minister of Defense Regulation Number 33 of 2014 on military aircraft maintenance.

**3.4 Data Analysis Technique**

In this study, the data analysis method employs the four steps of the interactive analysis model of [13] including data collection, data condensation, data presentation, and conclusion drawing [14].



**Figure 2 : Model Data Analysis Procedure by [13]**

## IV. RESULTS

### 4.1 A Survey of Research Topics

In the 1950s, the predecessor of the 4th Air Squadron was known as the Fourth Ground Reconnaissance Squadron. According to the proclamation of Kasau Number: 28 / 11 / Peng / KS / 51 dated March 21, 1951, the name "Eskadron IV" was changed to "Skadron IV" following the Union (AURIS) period. This was the Assistance Squadron for troops on the ground for reconnaissance and artillery gun shooting guide. Initially, this squadron was comprised of single-motorized Auster Mark X 130 DK Gipsy Major (UK) aircraft, the legacy of the 6e ARVA (Artillery VerkenningAfdeling) that the Indonesian government received from LuchtvaartMilitaire Nederland on March 20, 1950, at the Semplak Air Base (now AtangSanjaya Air Base) in Bogor. The Skep on the reactivation and mutation of the 4th Air Squadron was issued on Thursday, April 4, 1985, with no scepticism / 43 / IV / 1985, TMT 27-04-1985. Major PnbSuharsono, as the Squadron Commander and head of his entourage, is ready to conduct an emigration flight to Abd Saleh Air Base. 2 C-212 Casa 100 series, 8 C-212 Casa 200 series, 6 Cessna A-401/A-402 aircraft, 4 Dakota C-47 aircraft, and 1 SC 7 SKY VAN aircraft are ready to go. The transfer of this aircraft force spanned four days, beginning on April 5, 1985, and ending on April 8, 1985. One SC-7 Skyvan aircraft was left behind in Halim due to its inoperable state. The complete force of twenty aircraft finally arrived in Malang. Four days later, on April 9, 1985, the 4th Air Squadron was reactivated by Air Force Chief Marshal Sukardi. Because the Air Squadron 4 hangar was still undergoing renovations, the opening ceremony was held at the Air Squadron 32 hangar.

### 4.2 Collection of Data Results

The following findings can be reached from the evidence gathered by multiple methodologies, including interviews, observations, and documentation research: Currently, the implementation of policies based on Minister of Defense Regulation No. 33 of 2014 for the Implementation of Military Airworthiness of the 4th Air Squadron may be carried out correctly. As part of implementing this policy, procedures must ensure that staff operating CASA C-212 aircraft are qualified. Each manning personnel has a certificate issued by Dislambangjaau by his field, and in order to obtain the certificate, each personnel must pass a test in their area of expertise. This ensures that the manning personnel have the proper aircraft operating conditions. Implementing aircraft

maintenance policies based on Minister of Defense Number 33 of 2014 about Implementation of Military Eligibility to Support National Defense is very good and agrees to support and determine the aircraft's material/sucad airworthiness based on sucad results (Air Squadron 4). With these rules, inspectors have a solid foundation to support the implementation of maintenance activities, which can positively impact the implementation of policies.

The implementation of this strategy will have a positive effect on the aircraft maintenance performance of the 4th Air Squadron. As an aircraft's age is inversely proportional to its capabilities, proper maintenance is required. Proper maintenance ensures that the aircraft's dependability is maintained and that military supplies stay in a state of readiness. Proper maintenance procedures boost confidence and expand capabilities, ultimately enhancing aircraft maintenance performance. Because the user (Air Squadron 4) is responsible for the technical guidance and supervision of the implementation of the feasibility of the components or materials received, the impact of the implementation on aircraft maintenance performance in the environment of Air Squadron 4 is related to the provision of aircraft spare parts is very good.

Internal substantiating factors Currently, the Indonesian Air Force is capable of performing its own light, medium, and heavy maintenance without involving third parties. With the Minister of Defense, the quality of inspectors and legality are sufficient to declare all permits eligible. The CASA C-212 aircraft must be crewed by competent and professional personnel. The availability of spare parts to support the required maintenance process and the availability of facilities not owned by the 4th Air Squadron. An Inspector authorized to conduct functionally and technically valid inspections based on technical publications or applicable procedures with supporting data/certificates accompanying the material to assist the Department of Defense in the implementation of aircraft maintenance within Air Squadron 4. From an External standpoint. Air Squadron 4 currently utilizes regional aircraft and defence equipment. Therefore the existence of the Minister of Defense in Indonesia has an impact on the defence business there. To support the operations of the CASA C-212 aircraft, personnel outside the 4th Air Squadron, particularly in the Indonesian National Military-AU scope, must be competent and professional. The availability of spare parts to support the required repair process

and the availability of facilities not owned by the 4th Air Squadron.

Internal factors that create impediments Currently, very few inspectors of feasibility are in the field or lower-level units; thus, only these individuals do any feasibility tests. Inadequate human resources produce poor maintenance results, causing the aircraft to have certain remarks (within acceptable limits) but still operate. Additionally, the aircraft's performance is not optimal to support operations and training, thereby decreasing the air crew's confidence and comfort in operating. The lack of adequate maintenance facilities to support the maintenance process is an internal barrier to the maintenance policy. Without adequate facilities, the maintenance policy will be impossible to decide. Spare parts that have not been adequately supported are detrimental to the maintenance process and the readiness of the existing aircraft from an external standpoint. This will affect missions without support and planning exercises. In the 4th Air Squadron, the lack of spare parts required to support the maintenance process and the lack of facilities required for the maintenance process are obstacles.

In principle, policy implementation is a means for a policy to achieve its objectives. Neither more nor less. There are two options for implementing public policy: implementing it directly in the form of a program or formulating derivative policies or derivatives of these public policies. Beginning with the program, the project, and then the activities, the sequence of policy implementations may be easily noticed. The approach adapts conventional management processes, particularly public sector management. Policies are developed in the form of programs, which are then reduced to projects, and ultimately manifest in actions, whether carried out by the government, the community, or the government and the community in collaboration.

On the basis of this idea, the Ministry of Defense policy number 33 of 2014 regarding the Implementation of Military Eligibility to Support National Defense will be implemented. The results of the collected data collection demonstrate the application of this policy. Based on an interview with the commander of the 4th Air Squadron, it has been determined that the policies outlined in Minister of Defense Order No. 33 of 2014 on the Implementation of the 4th Air Squadron's Military Feasibility may be executed effectively at this time. Air Squadron 4 is responsible for implementing this policy to achieve the stated objective, which in this instance is the implementation of military flights in airworthy circumstances. In this context,

"military aircraft" refers to aircraft operated by the Indonesian National Army. Elementappropriateness Military is the condition of Military Commodities that become production facilities and maintenance facilities so that they may be operated or utilized with a reliable level of safety in accordance with their fundamental design and function within a specified timeframe. Optimizing implementation management maintenance is one of the policies associated with military feasibility. In this context, maintenance management is typically concerned with the planning, organization, personnel, program implementation, and control methods of maintenance activities. Activities aimed at optimizing maintenance performance by increasing the reliability and availability of a system or piece of equipment using effective planning, organizing, workforce regulation, monitoring, and evaluation.

The capacity of maintenance production facilities to maintain material conditions so that they continue to perform their essential tasks and production outcomes can be evaluated for safety. Air Squadron 4 has been certified based on the capability of its human resources, facilities, and defensive equipment, as well as the fulfilment of safety standards or requirements, as well as the performance of essential functions by Puslaiklambangjaau in the Indonesian Air Force. Determination of the policy referred to in Article 18 letter a regarding the implementation of military airworthiness through data collection and processing activities, formulation, and review of feasibility material and its ratification enables the implementation of policies in Air Squadron 4 as users can present accurate data and proper implementation in the maintenance process based on air engineering regulations from the koharmatau and technical orders from the th. They wanted occurrences that would be repeated while preserving the material circumstances necessary to serve its primary role of keeping military supplies in a state of readiness.

According to an interview with Major (Pnb) AndikaArdyagana, Chief of the 4th Air Squadron, conducted on July 11, 2022, at the 4th Air Squadron, the implementation of policies based on Minister of Defense Number 33 of 2014 concerning the Implementation of Military Feasibility of the 4th Air Squadron can be appropriately implemented at this time. Dan FlightopsAir Squadron 4 Major (Pnb) SyamsulAlam conducted on July 11, 2022, for flight personnel at Air Squadron 4. They are implementing Minister of Defense Regulation No. 33 of 2014 concerning the operating performance of CASA C-212 aircraft. The people operating the

CASA C-212 aircraft are qualified personnel. Every crew member has a certificate issued by Dislambangjaau by their field, and in order to obtain this certificate, they must pass a test based on their area of expertise. This ensures that the crew members are genuinely qualified to operate the aircraft. According to interviews with DanflightHarAir Squadron, 4 Captain (Tek) WahyuLegowo conducted on July 11, 2022, at Air Squadron 4, the implementation of aircraft maintenance policies based on Minister of Defense Regulation Number 33 of 2014 concerning the Implementation of Military Eligibility to Support National Defense has been ongoing. Well. Air Squadron 4 has been certified to meet the requirements and regulations as a maintenance operator for the NC-212 light aircraft, beginning with the specification of capabilities, organization, fashion, defence equipment, and inspectors to be declared airworthy. The maintenance process for the NC-212 light aircraft begins with the collection and processing of data, followed by the formulation, review, and approval of feasibility material so that the aircraft can perform effective and efficient maintenance in support of Air Squadron 4's operational readiness.

According to an interview with Kasubsikal Sahar Air Squadron 4 First Lieutenant (Kal) Irfan Rochmanto conducted on July 11, 2022, at Air Squadron 4, the implementation of aircraft maintenance policies based on Minister of Defense Regulation Number 33 of 2014 concerning Implementation of Military Feasibility to Support State Defense in the implementation of aircraft maintenance within the Squadron Air 4 related to the supply of aircraft spare parts material is very good and approved (Air Squadron 4). The adoption of the policy has had a positive impact on the outcomes. Describe a number of the positive results resulting from the implementation of this policy. According to an interview with Kasihar Air Squadron 4 Major (Tek) SatriaAnggara conducted on July 11 2022, at Air Squadron 4, the implementation of this policy will positively affect aircraft maintenance performance in the Air Squadron 4 environment. As an aircraft's age is inversely proportional to its capabilities, proper maintenance is required. Proper maintenance ensures the aircraft's dependability and that military supplies stay in readiness. Proper maintenance procedures boost confidence and expand capabilities, ultimately enhancing aircraft maintenance performance.

According to an interview with Dan Flightops Air Squadron Major (Pnb) SyamsulAlam conducted on July 11, 2022, at Air Squadron 4 for

pilot personnel, the impact of implementing policies on aircraft maintenance performance about the operational performance of CASA C-212 aircraft is the formation of good solidity between maintenance personnel and operational so that the CASA C-212 aircraft can be started well. Personnel non-aviators, based on interviews with DanflightHarAir Squadron 4 Captain (Tek) WahyuLegowo conducted on July 11, 2022, at Air Squadron 4, reported that the maintenance field is currently operating well in terms of carrying out an effective and efficient maintenance process as well as a neat maintenance administration process that can be used as the basis for file forms. Responsible for its validity The viability of the 4th Air Squadron is evaluated based on its competent personnel, adequate facilities, and sufficient defence equipment. Owned have dependability as a result of a maintenance procedure. This indirectly indicates that the 4th Air Squadron's maintenance performance is vital. According to an interview with Kasubsikal Sahar Air Squadron 4 First Lieutenant (Kal) Irfan Rochmanto on July 11, 2022, at Air Squadron 4, the performance of aircraft maintenance in the Air Squadron 4 environment is related to providing material aircraft spare parts because the user (Air Squadron 4) is responsible for the technical guidance and supervision of the implementation of the airworthiness of the components or material received. Consequently, the user/Air Squadron 4 requires an aircraft maintenance policy based on Minister of Defense Order No. 33 of 2014 regarding implementing Military Eligibility to Support National Defense.

This policy's good impact is not limited to a single stage or kind of maintenance but is evenly dispersed throughout multiple stages and types of maintenance. The types of maintenance or upkeep include (breakdown maintenance), which is performed only when the machine is broken. There are no fees for preventive maintenance. This condition is only applicable when adequate spare components are available. Periodic maintenance is performed by repeated operating cycles, which can be daily, weekly, or based on operating hours (running hours). Activities may consist of cleaning (sweeping), adjusting (adjustment), lubricating (oiling), or replacement. This maintenance is intended to prevent damage and lower repair expenses. Corrective maintenance is performed on non-functioning equipment until the required conditions are met, at which point an increase in equipment productivity is anticipated. Periodic checks are performed as part of this preventative maintenance to prevent premature damage.



Predictive maintenance is performed by anticipating the moment of equipment failure and replacing or fixing it beforehand [15].

The positive impact of this policy has been consistent with the theory of Lester and Stewart (Nastia, 2014:201), which states "that implementation as a process and an outcome (output) the success of a policy implementation can be measured or observed from the process and achievement of the final results (output)" The ultimate objective of implementing this policy is, of course, to establish flight and workplace safety in Air Squadron 4. From this explanation, it can be concluded that the 4th Air Squadron's implementation of Ministry of Defense policy number 33 of 2014 regarding the implementation of military airworthiness is optimal and has a positive impact on the implementation of aircraft maintenance. This policy's implementation is also capable of achieving the objective, which is the implementation of flight and work safety. According to [16], Implementation theory [17], implementation is the implementation of fundamental policy decisions, typically in the form of laws, but it can also take the form of orders or important executive decisions or other judicial bodies. These decisions identify the problem to be solved, explicitly state the goals or objectives to be achieved, and structure or regulate the implementation process in various ways. Properly implemented is the description of the implementation of the Aircraft Maintenance policy based on Minister of Defense Number 33 of 2014 concerning the Implementation of Military Eligibility to Support National Defense in the Implementation of Aircraft Maintenance in the Air Squadron 4 Environment. The implementation process is carried out as necessary to overcome the challenges that have been identified and to attain the goals or objectives that have been established or determined. The findings of this research policy on Aircraft Maintenance Based on Minister of Defense Regulation No. 33 of 2014 Concerning Implementation of Military Eligibility to Support National Defense have a positive impact on the process of maintaining military aircraft in the Air Squadron 4 environment, and it is recommended that an evaluation be conducted to improve the implementation of this policy's optimal outcomes.

According to an interview with Chief of the 4th Air Squadron Major (Pnb) AndikaArdyagana conducted on July 11, 2022, at the 4th Air Squadron, the Indonesian Air Force is currently capable of performing light, medium, and heavy maintenance on its own without involving other parties. With the Minister of Defense, the

quality of inspectors and legality of every granted permit are sufficient to be deemed admissible. Based on an interview with Dan Flightops Air Squadron 4 Major (Pnb) SyamsulAlam conducted on July 11 2022, at Air Squadron 4 for flight personnel, he stated that the internal factor supporting the operation of CASA C aircraft is the availability of capable and qualified personnel. -212. As for non-pilot personnel, according to an interview with DanflightHar Air Squadron 4 Captain (Tek) WahyuLegowo conducted on July 11 2022, at Air Squadron 4, the internal scope supporting components include human resources in the maintenance process and facilities in supporting the process. The results of well-executed maintenance are dependable defence equipment and administration and orderly and clean maintenance administration.

According to an interview with Kasihar Air Squadron 4 Major (Tek) SatriaAnggara conducted on July 11 2022, at Air Squadron 4, he stated that the supporting factors from an external perspective were capable and professional human resources outside the Air Squadron 4, particularly in the Indonesian National Military-AU scope, to support the ongoing maintenance process, the availability of spare parts to support the ongoing maintenance process and the availability of facilities that the 4 Air Squadron does not own. The 4th Air Squadron Kasar is in charge of the maintenance process carried out within the 4th Air Squadron. The availability of spare parts to support the required maintenance process and the availability of facilities not owned by the 4th Air Squadron. The 4th Air Squadron Kasar is in charge of the maintenance process carried out within the 4th Air Squadron. The availability of spare parts to support the required maintenance process and the availability of facilities not owned by the 4th Air Squadron. The 4th Air Squadron Kasar is in charge of the maintenance procedure carried out inside the 4th Air Squadron.

An interview with Chief of the 4th Air Squadron Major (Pnb) AndikaArdyagana conducted on July 11, 2022, at the 4th Air Squadron, stated that the supporting factor from an external perspective is that the 4th Air Squadron currently operates domestic aircraft/defence equipment. Hence, the Minister of Defense also impacts the Indonesian defence industry. The result is that Indonesia's military industry can become more independent. Based on an interview with Dan Flightops Air Squadron 4 Major (Pnb) SyamsulAlam conducted on July 11 2022, at Air Squadron 4 specifically for flight personnel, he stated that the external factors supporting the

operations of the CASA C-212 aircraft were capable and professional human resources outside of Air Squadron 4 in particular. within the Indonesian Air Force.

Based on an interview with Kasubsikal Sahar Air Squadron 4 First Lieutenant (Kal) Irfan Rochmanto on July 11, 2022, at Air Squadron 4 said that the supporting factors from an external perspective were related to the implementation of aircraft maintenance policies based on the Minister of Defense Number 33 of 2014 concerning Implementation of Military Eligibility to Support Defense The state in carrying out aircraft maintenance in the Air Squadron 4 environment related to the supply of aircraft spare parts is a political policy that must remain committed and consistent so that the consequences of implementing aircraft maintenance policies based on the Minister of Defense Number 33 of 2014 concerning Implementation of Military Eligibility to Support National Defense in the implementation of aircraft maintenance in the 4th Air Squadron environment related to the supply of aircraft spare parts material. Maintaining the availability of spare parts is vital and strategic because it impacts the success of creating airworthy conditions on the aircraft.

In addition to variables that assist, some factors operate as obstacles. The internal scope inhibiting factors are as follows: According to an interview with Kasihar Air Squadron 4 Major (Tek) SatriaAnggara conducted on July 11 2022, at Air Squadron 4, the Human Resources aspect is one of the internal obstacles impeding progress. The aircraft maintenance process has been impeded by Human Resources, who are not yet professional due to a lousy regeneration process and the influence of personal problems. Facilities and infrastructure-related factors. The lack of adequate maintenance facilities to support the maintenance process is an internal barrier to the maintenance policy. Without adequate facilities, the maintenance policy will be impossible to decide.

Based on an interview with Dan Flightops of the 4th Air Squadron Major (Pnb) SyamsulAlam conducted on July 11, 2022, at the 4th Air Squadron, he said that the inhibiting factor from the internal scope was that human resources were not capable of providing poor maintenance results, causing the aircraft to have certain remarks (within limits) but still able to operate. The performance is not optimal to support operations and training, so the aircrew becomes less confident/confident and comfortable in operating. Based on an interview with Kasubsikal Sahar Air Squadron 4 First Lieutenant (Kal) Irfan Rochmanto on July 11 2022,

at Air Squadron 4, First Lieutenant (Kal) Irfan Rochmanto stated that the internal scope was the limiting factor in implementing aircraft maintenance policies by Minister of Defense Number 33 of 2014 concerning Implementation of Military Feasibility to Support National Defense in Indonesia. The implementation of aircraft maintenance in the Air Squadron 4 environment is hindered by the lack of Human Resources (HR), facilities, and infrastructure in relation to the provision of aircraft spare parts material. Infrastructure and facilities impede the implementation of the policy. Infrastructure and facilities impede the implementation of the policy.

Based on an interview with Air Squadron 4 Major (Pnb) SyamsulAlam conducted for pilot personnel on July 11 2022, at Air Squadron 4, he stated that the external scope's limiting factor was a lack of fully supported spare parts, which prevented the maintenance process from being completed, thereby affecting readiness. This will have an effect on missions without assistance and planned drills. According to an interview with Kasubsikal Sahar Air Squadron 4 First Lieutenant (Kal) Irfan Rochmanto conducted on July 11 2022, at Air Squadron 4, the external factor hindering the implementation of aircraft maintenance in the Air Squadron 4 environment is the delivery of aircraft spare parts. It is a political, diplomatic policy that affects the policy's implementation. In accordance with Purwanto's theory, the development of these factors, which affect the success or failure of an implementation process, are as follows: The effectiveness of the policy itself. In this case, the quality of aircraft maintenance policies. Suitability of policy inputs (especially budget). The 4th Air Squadron's policy inputs include facilities and infrastructure, personnel quality, and human resources. Implementor capacity (organizational structure, HR support, coordination, supervision, and so on). In this example, the organizational system, support for personnel capabilities, and unit coordination of Air Squadron 4. The implementation presents geographical, social, economic, and political environmental conditions. Related to this, geographical and political conditions affect the implementation of the tasks and needs of the unit in flight operations, in this case, the Air Squadron 4 military flight.

## V. CONCLUSIONS

Implementation of Ministry of Defense Policy No. 33 of 2014 Regarding the Military Eligibility to Support National Defense in the Implementation of Aircraft Maintenance in the Air Squadron 4 Environment is carried out effectively.

This implementation procedure consists of human qualification and maintenance processes based on air engineering regulations from the koharmatau and manufacturer technical directives. The implementation of maintenance can be modified or enhanced based on the dynamics that occur by examining a more suitable maintenance process and approving it so that maintenance will be safer in anticipation of unwanted events and events that will reoccur while maintaining material conditions so that they continue to perform their fundamental functions for the purpose of military commodities. Remain in a state of readiness for use. The implementation of Ministry of Defense policy No. 33 of 2014 concerning the Implementation of Military Eligibility to Support National Defense in the Implementation of Aircraft Maintenance in the Air Squadron 4 environment has a positive impact in the form of inspectors possessing a solid foundation to support the implementation of maintenance activities and an increase in the performance of maintenance implementation. Multiple supporting and inhibiting factors influence the internal and external environments of Air Squadron 4. Human resources, maintenance management, and materials contribute to both supporting and hindering aspects. Several recommendations can be made based on the findings of this study, including the need for more adequate resources and time to support a more comprehensive study of the implementation process of Ministry of Defense policy number 33 of 2014 concerning the implementation of military feasibility to support national defence in the implementation of aircraft maintenance in the environment air squadron 4. To improve the maintenance results by increasing the supporting factors and overcoming the inhibiting factors.

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