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The Strategy for Aircrew Development in Maintenance Squadron No. 022 To Support the Implementation of Maintenance and Air Operations of the Indonesian Air Force

I Wayan Ady Dharmadi[1*], Mhd. Halkis[2], Budi Santoso[3], Hikmat Zakky Almubaroq[4]
Universitas Pertahanan Republik Indonesia
Corresponding Author: I Wayan Ady Dharmadi dharmadi2005@gmail.com

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A B S T R A C T

This study aims to identify and develop strategies for aircrew development in maintenance Squadron No. 022 to support the implementation of maintenance and operations of the Indonesian Air Force which problem identified as extreme workload for aircrew who works in maintenance and flight at the same time also differential of capability compare with aircrew in air squadron. A qualitative method with a case study approach and literature review was used to analyze data obtained through library research, interviews, and documentation The results of the study indicate that a selective and structured recruitment strategy, which includes psychological and technical skill tests, effectively identifies aircrew candidates with the best potential. Continuous training and education programs, including simulation exercises and advanced courses, have been proven effective in enhancing the competence and readiness of aircrew.

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INTRODUCTION

The 022 Engineering Squadron is an important element in the Indonesian Air Force (TNI AU) organization tasked with ensuring the readiness and reliability of aircraft through maintenance and operational activities. The problems that occur in this unit are the high workload where the aircrew carries out maintenance and flight tasks at the same time and the unequal capabilities between the aircrew in the Air Squadron and Engineering Squadron due to differences in flight hours and experience. Like organizations that carry out aircraft maintenance, this unit also carries out maintenance management including its human resources (Dassler, 2016). In this context, the role of the aircrew, consisting of flight engineers and load masters, becomes very vital. Aircrew refers to the personnel who operate the aircraft during flight, including pilots and cabin crew members who are responsible for ensuring the safety, security, and comfort of passengers (Derrickson & Tripathi, 2022, p. 2).

They are responsible not only for maintaining the safety and efficiency of flight operations but also for ensuring that every technical aspect of the aircraft is functioning optimally. The aircraft they are responsible for are aircraft maintained at the 022 Engineering Squadron, namely the C-130 Hercules, C-212 Aviocar and EMB-314 Super Tucano aircraft. Therefore, effective aircrew coaching is key to supporting the implementation of successful maintenance and operations, especially in the 022 Engineering Squadron which is different from the aircrew in the Air Squadron where an aircrew has duties in maintenance and operations. In operations, they carry out tasks in accordance with the applicable flight manual rules, and on the ground, they act as mechanics and personnel responsible for carrying out aircraft ground runs after carrying out maintenance to test the aircraft system before flying again. This can trigger high and excessive work stress so that it greatly affects work and physical conditions, which can trigger work stress (Safitri, 2020).

In the context of developing an aircrew development strategy in the 022 Engineering Squadron, it is important to note that "HR development is a strategic effort made to improve the quality and competence of personnel, including in terms of mapping, recruitment, and improving the quality of conducive and comfortable work. This is very important in the context of work units that have specific and complex tasks" (Kumala, 2022, p. 257). The aircrew development strategy includes various important aspects, including recruitment, training and education, performance appraisal, and compensation. Each of these aspects has a crucial role in forming a competent and committed aircrew. In recruitment, a strict and structured selection process is needed to ensure that only individuals with the best potential can join. In addition, good workforce planning according to the workload has an impact on maintaining work optimization and producing good worker productivity to maintain quality consistency (Irawan) & Leksono, 2021).

Training and education are also key pillars in the aircrew development strategy. Ongoing training programs, including simulation exercises and advanced courses, are designed to enhance aircrew competency and readiness. In a dynamic and challenging environment such as the Indonesian Air Force, adaptive and responsive training to technological developments and operational needs is essential. Formal and non-formal education that focuses on developing technical and managerial skills is also an integral part of the program.

Objective and transparent performance appraisal is another important aspect of aircrew development strategy. These appraisals are conducted periodically to ensure that aircrew maintains the expected level of performance and to identify areas for improvement. A good appraisal system not only provides constructive feedback but also serves as a motivational tool for aircrew to continuously improve their performance. Accurate and fair performance appraisals are also important for career development and compensation determination.

Fair and appropriate compensation for aircrew contributions is a key element in retaining and motivating personnel. Compensation that includes both financial and non-financial incentives should be designed to reward aircrew performance and dedication. Financial incentives may include, special allowances, and salary increases, while non-financial incentives may include awards, recognition, and career development opportunities. Appropriate compensation not only improves aircrew welfare but also contributes to personnel retention and job satisfaction.

In supporting the implementation of maintenance and operations in the 022nd Engineering Squadron, effective aircrew development cannot be separated from strong management support and the availability of adequate resources. This support includes the provision of complete training facilities, adequate budget allocation, and policies and procedures that support the development of aircrew competencies.

This study aims to identify and develop aircrew development strategies in the 022nd Engineering Squadron with a focus on recruitment, training and education, performance assessment, and compensation. Using qualitative methods and a case study approach, this study will analyze data obtained through in-depth interviews, observations, and documentation. The results of the study are expected to provide significant contributions in formulating policies and improving aircrew development programs in the Indonesian Air Force, so as to improve performance and operational readiness in supporting maintenance and operations tasks.

In a broader context, the findings of this study are also expected to provide insight for other military organizations facing similar challenges in personnel development. Developing a comprehensive and effective development strategy is an important step to ensure that every personnel, especially aircrew, has the competence and motivation needed to carry out their duties optimally. With the expected competence, an aircrew can carry out their duties well in terms of maintenance and operations with aircraft operational parameters that can be carried out optimally.

LITERATURE REVIEW

The training given to aircrew in the 022 Engineering Squadron aims to create aircrew who have the competencies needed to carry out their duties. The desired competencies of aircrew in Skatek 022 include an in-depth understanding of aircraft systems and technical maintenance and repair capabilities, analytical and decision-making capabilities under pressure, compliance with safety procedures, teamwork, and discipline and precision. In addition, aircrew must also have good communication skills, leadership skills, and adaptation to new technologies and continuous learning, including the use of information technology and artificial intelligence. These competencies will later be used as parameters for success in personnel development, to ensure high operational readiness and reliability in supporting the TNI AU mission.

In the aircrew development strategy in the 022nd Engineering Squadron, there are several key concepts that underlie this research by referring to Dessler's human resource management theory which offers a relevant framework for understanding how to optimize personnel potential. According to Dessler, human resource management is the process of acquiring, training, assessing, and compensating employees, as well as taking care of their work relations, their health and safety, and matters relating to fairness. By applying these principles, the 022nd Engineering Squadron can improve the readiness and capability of aircrew optimally by considering recruitment, training, performance appraisal and compensation factors so that a deep understanding of each of these concepts is very important for designing an effective development strategy.

Recruitment

Recruitment plays an important role in aircrew development. Susilo Martoyo (1994) in his book "Human Resource Management" states that recruitment is a process to attract, select, and place individuals who meet the requirements of a particular position in an organization. Selective and structured recruitment ensures that only individuals with the best potential can join as aircrew. The recruitment process should include various tests and interviews to assess the technical skills, physical abilities, and psychological suitability of prospective aircrew. Effective recruitment not only helps in getting competent employees but also in reducing turnover rates and increasing employee retention. A selective and structured recruitment process ensures that only individuals with the best potential can join as aircrew. Tests that include technical, physical, and psychological abilities help in identifying candidates who have a strong mentality and character, important in carrying out stressful tasks in the Indonesian Air Force. However, limited resources and time often make the recruitment process long and tiring. Therefore, efforts are needed to optimize the recruitment process without sacrificing the quality of selection (Aziz, Maarif, & Sukmawati, 2017). The recruitment process is carried out centrally by the Air Force Education Service and is implemented in implementing units, namely Air Squadrons that have been appointed according to the qualifications of the aircraft being manned.

Training

Training is another key element in aircrew development. Donni Juni Priansa (2018) in his book "Human Resource Planning & Development" states that training is a systematic process designed to improve employee skills, knowledge, and competencies so that they can carry out their duties more effectively. Priansa explains that ongoing training that is relevant to operational needs is essential to maintaining aircrew readiness and adaptability to technological developments and work environment dynamics. Effective training not only improves technical competency but also managerial and interpersonal skills needed in flight operations. Training that is carried out very intensively includes balanced theoretical and practical aspects. In addition, aircrew are also given the opportunity to take training abroad to gain more advanced knowledge and skills "(Evans, 2011).

Performance Assessment

Performance appraisal is another important aspect in aircrew development strategy. Suwatno (2014) in his book "Human Resource Management in Public and Business Organizations" states that performance appraisal is a systematic process to evaluate and document employee performance in achieving organizational goals. Objective and transparent performance appraisal is essential to provide constructive feedback, identify areas for improvement, and design employee development plans. This periodic performance appraisal includes skills and competency testing to ensure that aircrew capabilities are always measurable and in accordance with the required operational standards. Periodic testing also allows identification of additional training needs to address existing weaknesses and strengthen required skills. Objective and transparent performance appraisal has a positive impact on aircrew motivation and performance. Periodic evaluations help identify individual strengths and weaknesses, so that development plans can be tailored to the needs of each aircrew. Periodic testing ensures that aircrew capabilities are always measurable and in accordance with the required operational standards. However, there are several obstacles in implementing performance appraisal, such as limited time and human resources involved in the evaluation process. The solution that can be implemented is to use digital technology to simplify and speed up the assessment process (Zulkarnaen & Juara, 2021).

Compensation

Compensation is one of the important factors in aircrew development strategy. According to Mila Badriyah (2015) in her book "Human Resource Management," compensation is all forms of return received by employees as a reward for their contributions to the organization. Compensation can be in the form of salary, benefits, incentives, and non-financial rewards such as recognition and career development opportunities. Badriyah emphasized that fair and competitive compensation is very important to motivate and retain employees, including aircrew, so that they remain committed to their duties and responsibilities. Fair and competitive compensation is also very important in retaining and motivating aircrew. Well-managed compensation can also increase

work enthusiasm and productivity (Hidayat, 2021). . Clearer and more transparent policies are needed to ensure that all aircrew feel appreciated and recognized for their contributions. Competitive compensation can also attract new, quality talents to join the squadron. Therefore, it is necessary to conduct regular evaluations of compensation policies to ensure that they remain relevant and in line with developments in the military aviation industry (Adiyanti & Nugraha, 2023). In the context of aircrew development in the 022nd Engineering Squadron, a strategy that integrates effective compensation, training, performance appraisal, and recruitment will support better implementation of maintenance and operations. By referring to these concepts, this study aims to identify and develop development strategies that can improve aircrew competence, motivation, and operational readiness.

METHODOLOGY

This study uses a qualitative approach with a case study method to identify and develop aircrew coaching strategies in the 022 Engineering Squadron. The selection of this approach is based on the need to deeply understand the context, dynamics, and complexities involved in the coaching process, considering that so far coaching has not been carried out in a structured manner and only occurs during maintenance or flight implementation.

In the data collection process, researchers used three main techniques, namely in-depth interviews, participant observation, and documentation analysis. Interviews were conducted with various sources, including squadron leaders, flight engineers, load masters, and staff involved in the coaching program. The aim was to explore information about their experiences, views, and evaluations of the coaching strategies that had been implemented, especially in the aspects of recruitment, training and education, performance assessment, and compensation.

Furthermore, participatory observation was conducted directly by researchers to observe coaching activities in the squadron environment. Observations included the recruitment process, training sessions, operational activities, and aircrew performance evaluations. This technique was used to obtain a contextual and objective picture of the implementation of coaching strategies. As a complement, researchers also analyzed various related documents, such as coaching policies, training records, performance appraisal reports, and compensation data. This documentation analysis aims to strengthen the findings from interviews and observations and provide relevant quantitative and historical data.

The collected data was then analyzed using thematic analysis techniques. This process begins with the coding stage, where information from various sources is broken down into small data units that are coded based on the main themes that emerge. These codes are then grouped into larger categories, such as training effectiveness, operational constraints, and competency improvement strategies. The next step is to interpret the results of the analysis to understand the implementation of coaching strategies, the challenges faced, and the factors that influence the effectiveness of the coaching. These findings are linked to

relevant literature to strengthen the results of the analysis and produce targeted recommendations.

To ensure the validity and reliability of the data, the researcher applied triangulation of data sources by combining the results of interviews, observations, and documentation. In addition, member checking was carried out by asking for confirmation from the informants regarding the findings obtained, to ensure that the researcher's interpretation was in accordance with the reality in the field. Through this structured approach and method, the study is expected to provide comprehensive insight into the aircrew development strategy in the 022nd Engineering Squadron. The results not only describe the actual conditions and challenges faced, but also provide concrete recommendations for the improvement and development of future development programs. Thus, this study contributes to efforts to improve the effectiveness and efficiency of aircrew development in supporting the operational readiness of the Indonesian Air Force.

RESEARCH RESULTS AND DISCUSSIONS

This study aims to identify and develop aircrew development strategies in the 022 Engineering Squadron to support the implementation of maintenance and operations in the Indonesian Air Force (TNI AU). The analysis process is carried out based on data obtained through in-depth interviews, participatory observations, and documentation analysis, with a primary focus on four strategic aspects: recruitment, training and education, performance assessment, and compensation.

Recruitment Strategy

The recruitment process at the 022 Engineering Squadron has been carried out selectively and structured. Starting from an open announcement that reaches candidates from various backgrounds, the selection is carried out through a series of tests covering technical abilities, physical fitness, and psychological aspects. This is done to ensure that the aircrew accepted not only have technical competence, but are also able to work under pressure and demonstrate high commitment to the task. Analysis shows that this strict recruitment system provides many benefits, especially in recruiting quality individuals. Psychological tests are an important instrument in assessing the mental endurance and character of personnel. However, the long and time-consuming process remains a challenge, especially when operational needs are urgent. Therefore, efficiency in selection still needs to be improved without sacrificing quality standards.

Training and Education

Training and education in the 022nd Engineering Squadron are carried out continuously and comprehensively. The programs implemented include simulation exercises, advanced courses, technical training according to aircraft type (C-130 Hercules, C-212 Aviocar, and EMB-314 Super Tucano), as well as overseas training opportunities. Observations show that training is carried out intensively with a balanced portion of theory and practice, and training documentation proves a significant increase in the technical and managerial competencies of the aircrew. Such training has proven to be critical in maintaining personnel readiness. Flight simulations provide a realistic experience of dealing with emergency situations, while modern technology-based training has been widely recognized for its pedagogical advantages and cost-efficiency. However, limited training facilities are a real challenge, so investment in state-of-the-art simulators, virtual reality devices and digital classrooms needs to be a priority.

Performance Assessment

Performance assessments are conducted periodically and comprehensively, covering technical skills, operational capabilities, and teamwork. Evaluations are conducted through simulations and routine exercises, and the results are used as a basis for career development, promotion, and compensation. Aircrew generally feel that this assessment system has been running objectively and transparently. Consistent evaluation can identify the strengths and weaknesses of personnel, allowing for more targeted individual development plans. However, this process still faces constraints of time and human resources. Therefore, the adoption of digital technology for the assessment system is considered a promising solution because it can increase efficiency and accuracy, while strengthening transparency in the evaluation process.

Compensation Provision

Compensation received by aircrew includes basic salary, flight allowance, and non-financial incentives such as awards and recognition. Based on interviews and documentation, the compensation system implemented is considered fair and competitive, which has a positive impact on work motivation and personnel loyalty. Fair compensation is essential to retain and motivate aircrew. However, challenges still arise in terms of clarity of criteria for granting allowances and bonuses. Therefore, there needs to be a more transparent compensation policy that is in line with military industry standards, so that it can attract quality talent and retain superior personnel.

Challenges and Recommendations

In its implementation, aircrew development in the 022nd Engineering Squadron still faces various challenges. Limited resources, minimal modern training facilities, and time-consuming recruitment and assessment processes are the main obstacles. In addition, equality in access to career development and compensation is also a concern.

To address this, the study recommends several strategic steps:

1. Optimizing recruitment by utilizing digital systems such as the Applicant Tracking System (ATS) so that the process is more efficient and the candidates recruited are more targeted.
2. Investing in modern training facilities such as state-of-the-art flight simulators, virtual classrooms and virtual reality-based technology, to improve the quality of training.
3. Digitalization of performance assessments, which can provide a faster, more objective and transparent evaluation process, while increasing the accuracy of decision making.
4. Reformulate compensation policies, with a more open and equitable approach, so that all personnel feel appropriately valued for their contribution.

By implementing these recommendations, it is expected that the aircrew development strategy in the 022nd Engineering Squadron can develop into a more effective, adaptive system that supports the operational readiness of the Indonesian Air Force as a whole. Planned and modern development will increase the professionalism, motivation, and combat readiness of aircrew in carrying out strategic tasks for national air defense.

CONCLUSIONS AND RECOMMENDATIONS

This research aims to identify and develop aircrew development strategy in the 022nd Engineering Squadron in supporting the implementation of maintenance and operations of the Indonesian Air Force (TNI AU). Based on the results of the study Which involving interview deep, observation participatory, and documentation analysis, several key conclusions can be drawn from four main aspects of coaching strategy: recruitment, training and education, performance appraisal, and compensation.

a. Aircrew recruitment in the 022nd Engineering Squadron is carried out selectively and structured to ensure that only the best individuals join. The selection process includes technical, physical, and psychological ability tests designed to comprehensively assess the candidate's abilities. This rigorous recruitment ensures that selected aircrew have strong technical, mental, and character skills, which are essential in carrying out stressful tasks in the Indonesian Air Force. Although process This eat time and source Power Which Enough large, the result is the procurement of competent personnel who are ready to face operational challenges.

b. Aircrew training and education is conducted continuously with a program that includes simulation exercises, advanced courses, and specific technical training. This program has succeeded in improving the technical and managerial competencies of aircrew, enabling them to adapt to technological developments and changing operational needs. However, there is challenge in matter limitations facility and tool training to address this, further investment in state-of-the-art training facilities is needed to ensure that aircrew can train with the latest equipment and technology.
c. Performance appraisals are conducted periodically and include skills evaluation. Technical, knowledge operational, And ability Work within the team. This objective and transparent assessment provides constructive feedback to the aircrew and helps in identifying areas for improvement. Periodic testing ensures that the aircrew's capabilities are always measurable and in accordance with the required operational standards. However, constraints in terms of time and resource constraints for process evaluation still There is. Solution which can applied is to use digital technology to accelerate and improve the assessment process.
d. The compensation provided includes basic salary, special allowances, and non-financial incentives such as awards and recognition. A fair and competitive compensation system has succeeded in increasing aircrew satisfaction and motivation. However, the challenge in determining the right criteria for giving bonus and allowance Still There is. Policy Clearer and more transparent compensation is needed to ensure that all aircrew feel valued and recognized for their contributions.

Based on the results of the research and analysis that have been conducted, there are a number of recommendations that can be applied to improve the effectiveness of the aircrew development strategy in the 022 Engineering Squadron. These recommendations aim to address various existing challenges and encourage the creation of a more modern, fair, and efficient development system.

First, the recruitment process needs to be improved and accelerated through the use of digital technology and an efficient recruitment management system. By integrating applications such as *the Applicant Tracking System (ATS)* , squadrons can screen and select aircrew candidates more quickly, accurately and objectively, without sacrificing quality.

Second, adequate budget allocation needs to be prepared for the procurement of modern and sophisticated training tools and facilities. This is important so that aircrew can train with the latest technology that is relevant to the development of the systems and types of aircraft they operate. This investment will not only improve the quality of training, but will also strengthen operational readiness and flight safety.

Third, the performance assessment process must be supported by digital technology to speed up and simplify its implementation. A digital-based assessment system will also ensure that every aspect of the evaluation is carried out objectively and transparently, so that the results truly reflect the actual performance of each aircrew.

Finally, a clearer and more transparent compensation policy needs to be developed that reflects the real contribution of each aircrew member. Fair and targeted compensation will not only increase motivation and job satisfaction, but also help retain the best talents and create a positive and productive work culture. By implementing these four recommendations, it is hoped that the aircrew development strategy in the 022 Engineering Squadron can be more effective and able to adapt to the challenges and demands of the Indonesian Air Force's future duties.

ADVANCED RESEARCH

Further research on aircrew development strategies in the 022 Engineering Squadron needs to be directed at strengthening the personnel development system based on modern technology and management to support the readiness of maintenance and air operations of the Indonesian Air Force in a sustainable manner. In-depth studies can be focused on the integration of digital training systems, such as flight training devices (FTD), full mission simulators (FMS), and the use of learning management systems (LMS) to support the effectiveness of competency-based training. Future studies also need to explore data-based recruitment models and artificial intelligence to improve the accuracy of aircrew candidate selection that is in accordance with the technical and psychological needs of the mission.

In addition, the development of a real-time and transparent performance assessment system, based on analytical data and sensor technology, will strengthen objectivity and accountability in HR development. Cross-agency collaboration, such as between the Indonesian Air Force, the Ministry of Defense, and training technology providers and military education institutions, must also be further studied to create a sustainable development ecosystem. Evaluation of the effectiveness of compensation and incentive policies that are adaptive to performance is also important to maintain the motivation and retention of superior aircrew. Furthermore, a research approach based on performance forecasting and predictive talent development needs to be developed as an anticipatory strategy in facing the dynamics of modern air operation’s needs. The results of further research are expected to provide a basis for innovative policies and models for aircrew development, adaptive to technology, and support the operational readiness of the Indonesian Air Force in the context of increasingly complex and strategic national air defense.

REFERENCES

Abdullah, Abu Hanifah Haji,Ir, Hanifah, Nadzrul Niezar Abu. 2023. Understanding Aircraft Airworthiness Business Ecosystem.

Adiyanti, SA, & Nugraha, E. (2023). The Effect of Financial Compensation and Non-Financial Compensation on Employee Performance. Remik: Research and E-Journal of Computer Informatics Management, 7(1).

Aláez, D., Olaz, X., Prieto, M., Porcellinis, P., & Villadangos, J. (2022). HIL flight simulator for VTOL-UAV pilot training using X-Plane. Information, 13(12), 585.

Aziz, TA, Maarif, MS, & Sukmawati, A. (2017). The Influence of Recruitment and Selection on Performance. Journal of Business and Management Applications, 3(2), 246-253.

Badriyah, M. (2015). Human Resource Management. Bandung: Pustaka Setia.

Derrickson, W., & Tripathi, K. (2022). Difference in risk perception of onboard security threats by aircrew and aviation security experts. Transportation Research Interdisciplinary Perspectives, 16, 100666.

Dessler, Gary., 2016, Human Resources Management, Salemba Empat, Jakarta.

Evans, S. (2011). MC-130 Aircrew Training Scheduling. Air Force Institute of Technology.

Florio, Fillppo. Airworthiness An Introduction to Aircraft Certification. 2006. Massachusetts: Elsevier Ltd. Kinnison, Hary A., Ph.D. 2004. Aviation Maintenance Management. New York. The McGraw-Hill Company.

Hidayat, A. (2021). The effect of compensation and motivation on employee performance with job satisfaction as an intervening variable. Magister Manajemen, 6(2), 165-176.

Irawan, A., & Leksono, EB (2021). Analysis of workload in the quality control department. INTECH Journal of Industrial Engineering, Serang Raya University, 7(1), 1-6.

Kumala, DAR (2022). Human resource development strategies. Journal of Science and Humanities Research and Development, 6(2), 254-261.

Martoyo, S. (1994). Human Resource Management. Yogyakarta: BPFE.

Mulyeni, S., Masitoh, IS, Nurliah, L., Santi, S., & Sikki, N. (2023). The effect of compensation and motivation on employee performance: A case study at PT. ASM West Bandung. Indonesian Journal of Economic and Business (IJEB), 1(2), 59-67.

Pranowo, Ignatius Deradjat, 2019, Maintenance Management System, Yogyakarta, Deepublish.

Priansa, DJ (2018). Human Resource Planning & Development. Bandung: Alfabeta.

Safitri, HU (2020). The relationship between workload and work stress. Psikoborneo, 8(2), 174- 179.

Somerville, A., Lynar, T., & Wild, G. (2023). The nature and costs of civil aviation flight training safety occurrences. Transportation Engineering, 12, 100182.

Suwatno. (2014). Human Resource Management in Public and Business Organizations. Bandung: Alfabeta.

Thoha, Miftah., 2020, Organizational Development Analysis, Rajagrafindo Persada, Depok. TO C-130 Hercules Flight Manual TO 1C-130H-1.

Thulasy, TN, Nohuddin, PNE, Nusyirwan, IF, Rahim, NA, Amrin, A., & Chua, S. (2022). Skills assessment criteria for aircraft maintenance technicians in the context of Industrial Revolution 4.0. Journal of Aerospace Technology and Management, 14, e3322.

TO EMB-314 Super Tucano Flight Manual TO 1A-29B-1. TO C-212i Aircraft Operations Manual 12M.0001.145.

Zulkarnaen, BH, & Juarna, A. (2021). Application of the Simple Additive Weighting Method in the Application of the Best Work Unit Performance Assessment at the Ministry of Public Works and Public Housing. EXPLORE – Journal of Research and Development of Science and Humanities, 11(2), 113-121.