

Implementation of Safety Culture at the Aviation Security Unit at Betoambari Airport, Baubau City

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Abstract

Aviation security and safety must be considered in every operation. To prevent accidents, actions that increase safety are needed, such as adopting a safety culture. Safety culture is formed through organizational, professional and national culture that is implemented to maintain flight safety. The aim of this research is to find out how far the safety culture is implemented at the Aviation Security unit at Betoambari Airport. This study used a research method in the form of a qualitative approach using primary data in the form of interview and observation data and secondary data in the form of literature studies, report data in the form of SOP (Operational Standard) archives related to safety culture and events that have been documented and are related to the subject matter of the research. Data collection techniques used are observation, interviews and documentation. While the data analysis technique uses data collection, data reduction, data presentation and conclusion. Then in measuring the validity of the researchers used the technique of triangulation of sources and methods. The results of this study look at the implementation of the safety culture at Betoambari Airport with the implementation of AVSEC officers: performance, work shifts, work coordination, safety briefings with other units are in accordance with the applicable SOP in the Ministry of Transportation regulations SKEP 2765/XII/ 2010.

Keywords: *Safety Culture*, AVSEC, Aviation Security



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INTRODUCTION

The industrial development that is currently being experienced in this world globally has entered the revolution 4.0 phase where the era is currently in a period of further technological development such as the internet, computerization, microchips, IoT, artificial intelligence (AI), machine learning, deep learning, cloud analytics. even autonomous vehicles are revolutionizing every process from production to distribution and focusing on sustainability. In line with these increasing developments, safety has become a priority in the implementation of activities in the world of aviation. This applies to individuals or agencies in accordance with the standards issued by the International Agency,

Betoambari Airport (IATA: BUW, ICAO: WAWB), is an airport located near the province of Southeast Sulawesi. The airport is at an altitude of 32 meters (105 ft) and has one runway in the direction of 04/22 with asphalt coating measuring 1950 x 45 meters (6398 ft x 148 ft). Since it was built in 1976 it has served as a pioneer airport. After being abandoned and barely used, in 2001 the airport runway was upgraded. At the end of 2003 a private airline visited this airport with a 54-seater aircraft. At least three times a week there are planes arriving and departing at Betoambari Airport (OTBAN Region V, 2021)

Nationally the rules issued by international bodies were adopted until then the government issued a policy or rule in the form of Law Number 01 of 2009 concerning Aviation which then issued many other regulations that support the implementation of aviation activities, security and safety. To support aviation security and safety, one of the units that plays

an important role in this regard is the Aviation Security (avsec) unit. According to data obtained from (Regulation General of Civil Aviation Number: SKEP/2765/XXII/2010 Chapter 1 point 9) Avsec (Aviation Security) is an aviation security personnel who has (mandatory) has a license or certificate of competency officer (STKP) who is given duties and responsibilities in the field of aviation security. In carrying out their duties,

Existing problems related to AVSEC's performance in implementing safety culture, one of which is the problem that occurred at Juwata Tarakan Airport, which was reconstructed on Wednesday, 21 February 2018. The smuggling of methamphetamine weighing 1 kg took advantage of the negligence and negligence of fellow officers. AVSEC at Tarakan Juwata Airport. According to the Director of Reskoba Polda Kaltim Kombes Pol Drs. Akhmad Shaury, an AVSEC officer, did not carry out his inspection duties according to the standard operating procedure (SOP). With this problem, security at Juwata Tarakan airport has increased, especially for the AVSEC officers themselves. One of the efforts to emphasize is that AVSEC officers use the passenger profiling capability in order to anticipate prohibited items from entering the flight and apply to anyone, there are no exceptions. (Johanny, 2018)

According to Anto (2018) Happened at the Betoambari airport on Thursday, March 29, 2018. Successfully thwarted the smuggling of 18 turtle eggs, with the chronology initially found by SKIPM Baubau officers and Avsec officers at Betoambari Baubau Airport while inspecting passenger goods via X-Ray at departure terminal. The turtle eggs were planned to be departed for Kendari. questioned by the avsec officer because the passenger had fled on the plane that was going to the vehicle.

Of course actions related to aviation security and safety are the main thing and prioritized in the operation of flight activities. As a form of mitigating the occurrence of accidents and incidents, actions are needed to improve aviation security and safety. One of them is through safety culture. Safety culture is something that is obtained through a combination process between organizational culture, professional culture and also from national culture.

Literature Review

SafetyCulture(Safety Culture)

In the world of aviation, the term safety culture is known as a strategic effort to achieve aviation safety. ICAO (International Civil Aviation Organization) in Human Factor Digest 10 provides a definition of safety culture, namely safety culture in an organization can be considered as a set of beliefs, norms, attitudes, roles, and related social and technical practices by minimizing exposure to employees, managers, customers and members of the general public against conditions deemed dangerous or dangerous.

Safety culture or Safety culture according to ICAO and Human Factor Digest 10 in Anggraeni (2020) is something that is obtained through a combination process between organizational culture, professional culture and also from national culture. One of the efforts to implement this aviation safety culture is to introduce this culture to stakeholders in aviation activities by providing education in the form of education and training where all employees of agencies engaged in aviation activities are given this training so that they have knowledge in carrying out which can later understand and know very well what aviation safety culture is and how to implement it. Where by providing relevant understanding for stakeholders (stakeholders) in aviation activities can be carried out through the process of education and training, so that safety culture can run effectively. Safety culture can be formed when workers are involved in effective procedures to control safety. Safety culture in the workplace is closely related to the nature, attitudes, and safe behavior of every organization and worker. Therefore, in building a safety culture, every organization and worker needs a process of socialization,

internalization and enculturation to strengthen the building of the safety culture they want to create. Safety culture is a set of beliefs, mindsets, attitudes, and certain feelings that underlie and direct the behavior of individuals or organizations to create safety. This safety culture needs to be built in the form of a culture of reporting, a culture of mutual information, a culture of learning and a culture of not blaming. According to Balk (2009) in realizing a safe culture or safety culture there are six characteristics that must be applied, namely: Commitment, Truth, Information, Awareness, Adaptability and Behavior. .

Aviation Security

The definition of AVSEC (Aviation Security) according to the Minister of Transportation Decree Number KM 54 of 2004 dated May 21, 2004, explains that Aviation Security is a combination of human resources, facilities and material as well as procedures to protect civil aviation from acts of disturbance against the law. According to the Regulation of the Directorate General of Civil Aviation Number: SKEP/2765/XXI/2010 Chapter I point 9 explains that Aviation Security is aviation security personnel who are required to have a license or certificate of competence for officers (SKTP) who are assigned and responsible for the field of aviation security. In carrying out their duties an Avsec is guided by ICAO (International Civil Aviation Organization) regulations, which is an international civil aviation organization under the United Nations (United Nations).

Law of the Republic of Indonesia Number 1 of 2009 concerning aviation, Chapter 1 point 49 explains that aviation security is a condition that provides protection to aviation from unlawful acts through the integrated use of human resources, facilities and procedures. In Annex 17 Security regulates the main objective of AVSEC (Aviation Security) is to maintain the safety of passengers, aircraft crew, officers and the general public against acts against the law by preventing the transport of goods that can endanger flights.

Betoambari Airport

Airport is an area on land or water with certain boundaries that is used as a place for airplanes to land and take off, take off passengers, load and unload goods, and place for intra and intermodal transportation, which is equipped with aviation safety and security facilities, as well as basic facilities and other supporting facilities (DJPU, 2019). According to the Law of the Republic of Indonesia Number 1 of 2009 concerning Aviation, the definition of an airport is an area on land and/or waters with certain boundaries that is used as a place for aircraft to land and take off, board and drop passengers, load and unload goods, and place for intra and between modes of transportation, equipped with aviation safety and security facilities,

Betoambari Airport (IATA: BUW, ICAO: WAWB), is an airport located in the province of Southeast Sulawesi. The airport is at an altitude of 32 meters (105 ft) and has one runway in the direction of 04/22 with asphalt coating measuring 1950 x 45 meters (6398 ft x 148 ft). Since it was built in 1976 it has served as a pioneer airport. After being abandoned and barely used, in 2001 the airport runway was upgraded. At the end of 2003 a private airline visited this airport with a 54-seater aircraft. At least three times a week there are planes arriving and departing at Betoambari (Regional Airport Authority V, 2021). Betoambari Airport is included in the class III domestic airport, serving routes from Baubau City to other areas in Southeast Sulawesi Province or other areas of other provinces. Betoambari Airport was built since the beginning of Pelita II in 1975/1976. Betoambari Airport is currently managed by the Airport Management Unit (UPBU) under the Ministry of Civil Aviation.

RESEARCH METHODS

This study uses a research method in the form of a qualitative approach. According to Cresswell (2016), a qualitative approach has the function of exploring, researching, and understanding from part of a social and humanitarian problem. This study focuses on explaining and describing research data by conducting observations and interviews with the AVSEC Unit at Betoambari Airport. The research data is in the form of primary data and secondary data which will be analyzed using a qualitative descriptive analysis method. According to Sugiyono (2016), descriptive analysis functions as a data analysis method by describing and describing research data that has been collected correctly without changing or making general conclusions.

Research Subjects and Objects

The subjects in this study were Aviation Security officers at Betoambari Airport. While the object of this study is the safety culture in the Aviation Security Unit at Betoambari Airport.

Place and time of research

This research was conducted at the AVSEC (Aviation Security) Unit at Betoambari Airport. This research was conducted for one month from 1 to 31 March 2023.

Data Types and Sources

1. Primary data. According to Moleong (2015) primary data is data whose sources are obtained directly by researchers, respondents, and informants or resource persons. So that in collecting or retrieving primary data, direct communication between researchers and data sources is needed. In the primary data of this study, in the form of interview and observation data.
2. Secondary Data. According to Moleong (2015) secondary data in research is data that is not obtained directly by researchers. In this study, secondary data was used in the form of literature studies, report data in the form of SOP (Operational Standard) archives related to safety culture and events that have been documented and related to the subject matter of the research.

Data collection technique

1. Observation Techniques. In research with qualitative methods, observation techniques are observation techniques that are carried out directly on the object of research. The purpose of observation in research is to find out facts, reality, situations, conditions, meaning, and context in an effort to collect research data. Based on this observation technique, the researcher made direct observations at the AVSEC unit at Betoambari Airport. In this study, observations were focused on security and safety-oriented performance and behavior with limitations on the implementation of a safety culture for 5 AVSEC officers consisting of Unit Heads, Supervisors, AVSEC Seniors, AVSEC Juniors and AVSEC Basics.
2. Interview Techniques. According to Moloeng (2015) an interview is a dialogue activity by asking a number of questions for a specific purpose carried out by the interviewer and the interviewee as the answerer. In interview activities in research, researchers generally prepare interview guidelines before conducting interview activities. Interviews in this study were carried out by means of a list of questions prepared in advance, which were then submitted to the informant or resource person. The sources' answers to these questions were then recorded or recorded using a tape recorder. Interviews will be submitted to 5

informants, namely 5 AVSEC officers consisting of Unit Heads, Supervisors, AVSEC Seniors, AVSEC Juniors and AVSEC Basics.

3. Documentation Data Collection Techniques. According to Ibrahim (2015), document or documentation techniques are a method by collecting research-related data in the form of notes, photos, videos, recordings, archives or similar document data obtained by researchers. In this study, researchers used Standard Operating Procedure (SOP) documents, related rules or regulations and photos related to activities that support the security and safety of flight activities at the airport AVSEC unit.

Data Analysis Techniques

According to Sugiyono (2016), research analysis activities are carried out in an interactive way and take place continuously until they produce valid data. In qualitative research a data analysis can be carried out directly to the field or make observations during and after the implementation of the research in the field. In this study, the research data was obtained from observation data, interview data, and documentation data. According to Sugiyono (2016), the components of interactive model data analysis include:

1. Data collection. Researchers collected data derived from observation data or direct observations conducted by researchers, interview data, and documentation data in the form of SOP data and photo documents related to the subject of research at the AVSEC Unit at Betoambari Airport.
2. Data reduction. The data that has been obtained by researchers from observation data, interview data, and documentation data are then reduced. Data reduction is done by summarizing, sorting, and focusing data based on the research objectives. In the research data reduction stage, the researcher screened the data, grouped the data, and made abstractions from the research data.
3. Data Presentation. After data reduction, data presentation was carried out. The data obtained was presented in the form of interview notes (CW), documentation notes (CD), and field notes/observations (CL). Grouping data into 3 parts aims to make it easier for researchers to analyze quickly and easily. The three data were then analyzed in the form of reflection and presented in text form.
4. Conclusion Drawing. At the research stage with qualitative analysis of the interactive model, the last step that was carried out was making conclusions, which had previously been verified by data. The conclusions in this study refer to the answers to the formulation of the research problems. According to the data that has been reduced and presented, the researcher draws conclusions based on strong evidence at the research data collection stage.

Data Validity Check Techniques

In this research, the data checking technique used is the triangulation technique. The triangulation technique is an examination of data from other sources, techniques, and time with the aim of achieving the truth of the research results (Sugiyono, 2016). The use of the triangulation technique was chosen because of the suitability between the results to be achieved in this study and the paradigm used. The triangulation technique used in this study uses the data validity technique of source and method triangulation. Source triangulation has the meaning of comparing and re-examining the degree of trust in an information that the process of obtaining it from different times and tools in qualitative research. Method triangulation is checking the degree of trust in research findings from several different data collection techniques. In this data validation technique, the researcher triangulated the data by making comparisons of the three main categories, namely interviews, observation, and

documentation. Based on these three categories, the researcher re-examined to achieve the truth or validity of the data based on different data sources. In its application, the researchers carried out these three categories for the Betoambari Airport AVSEC unit.

RESEARCH RESULTS AND DISCUSSION

This study aims to determine the implementation of safety culture at the Aviation Security unit at Betoambari Airport, Baubau city. This research was conducted on March 20 2023 to March 25 2023. The results of this research were obtained from observations, interviews and documentation and will be presented in this chapter.

Research result

Interviews in this study were conducted with Aviation Security (Avsec) officers at Betoambari Airport, Baubau City. The results of this study aim to answer the formulation of the research problem. Researchers interviewed 4 (four) sources as follows:

Table 1. Biodata of Informants

No.	Initials	Age	Years of service	Position
1	sy	44 Years	9 years	Unit Head
2	LA	46 Years	10 -15 Years	Senior Avsec
3	FK	30 years	9 years	Junior Avsec
4	HE	25 years	5 years	Basic Avsec

Source: Primary data processed (2023)

The interview process was conducted on four sources separately. From the results of these interviews the researcher then re-examined to achieve the truth or validity of the data based on the results. Data analysis in this study aims to identify what the actual implementation of Safety Culture is like and what are the obstacles in implementing Safety Culture for AVSEC officers in the Field. The indicators found from the results of the interviews are then entered into tables and analyzed in accordance with the Characteristics of Safety Culture.

The role of Aviation Security officers is very important in the aviation industry to protect civil aviation security against actions and disturbances that could disrupt flights and the safety of all passengers, crew, ground personnel and the general public. Safety and security in the aviation industry is very important because the aviation industry globally contributes to economic development. Not only increasing economic development but also making the movement of passengers and goods easier and faster, then providing jobs for millions of people, one of which is Aviation Security officers.

Discussion

This research was conducted to find out how the implementation of safety culture (safety culture) at the Aviation Security unit at Betoambari Airport. In this study, there are 2 problem formulations that need to be answered through the research that has been done. The discussion of the results of this study will be described as follows:

Implementation of a safety culture at the Aviation Security unit at Betoambari Airport

Betoambari Airport (English: Betoambari Airport) (IATA: BUW, ICAO: WAWB), is an airport located near Bau-Bau, a city in the province of Southeast Sulawesi, Indonesia. The airport is located at an altitude of 32 meters (105 ft) above sea level. The airport has one tarmac runway 04/22 measuring 1950 x 45 meters (6398 ft × 148 ft). Aviation Security is a unit at the

airport that has the task of being the front guard in terms of flight security, guaranteeing the security and safety of prospective passengers on the ground and in the air. For airplane passengers, Aviation Security is certainly no stranger to traveling by airplane.

According to the results of interviews conducted with informants, the AVSEC unit is divided into 3 shifts and briefings are held every day at 05.30 and 12.30 which is led by the AVSEC commander. There are a total of 26 personnel, consisting of 5 civil servants and 21 contract employees. During operation, of course, these activities are supervised by Senior AVSEC because there is no Supervisor at Betoambari Airport and every task that is owned by AVSEC, of course, the officers will be provided with some equipment to support their work while providing security at the airport, such as: detection devices metal, X-ray scanner, explosive detection device, radio communication device connected to every AVSEC officer. Based on Government Regulations Concerning Aviation Security and Safety PP No.



Figure 1. Implementation of Safety Briefing at the AVSEC Unit
Source: Researchers, 2023

Based on SKEP 2765/XII/2010 the security check point (SCP) is divided into 2 areas, namely:

1. The first security checkpoint (SCP 1), is located at the entrance to the check-in counter area and must have at least 1 inspection line.
2. The second security checkpoint (Security Check Point/SCP 2), is located at the entrance area to the waiting area and checkpoint using aviation security equipment such as: X-ray machine, Walk Trough Metal Detector/WTMD and Hand Held Metal Detectors. Detectors/HHMD).

Then based on the results of interviews with informants, there is a Daily Checking on each tool before being used for surgery, whether the tool is feasible. The feasibility of the Avsec work unit equipment must of course be followed by good maintenance in accordance with the Regulation of the Director General of Civil Aviation Number: KP 241 of 2014 concerning:

1. Operation guide
2. Equipment maintenance
3. Aviation security facility reporting.

The Betoambari Airport applies Standard Operating Procedures for the eligibility of equipment in accordance with applicable regulations, all Avsec work unit equipment at Security Check Point 1 and 2 are well cared for, equipment is cleaned every day and its function is checked. The check is carried out according to the parts of the equipment divided into daily,

weekly, monthly, quarterly, semi-annual and annual checks. Aviation Security officers carry out Standard Operational Procedure (SOP) at Betoambari Airport, in carrying out their duties and responsibilities for Passenger Security Check Points. According to the results of interviews conducted with informants,

Implementation of a safety culture at the Aviation Security unit at Betoambari Airport

Performance of Aviation Security unit personnel in carrying out security duties at airports, especially Betoambari Airport. Of course there are no obstacles that are always present in their duties. This was proven by researchers when conducting direct research at Betoambari Airport, researchers found several obstacles found in the AVSEC unit at each position level. Based on the results of the researcher's interview with the Head of Unit, he said that the current constraints were HR, on the operational side, there was a shortage of personnel according to the desired standards, especially for Senior AVSEC, there were no supervisors or supervisors due to a lack of human resources, so senior AVSEC doubled as supervisor. .



Figure 2. Findings of Marine Products by AVSEC Officers at Betoambari Airport

Source: Researchers, 2023

In addition to marine products, AVSEC officers also collect goods that cannot be carried by passengers.



Figure 3. Findings of Dangerous Goods by AVSEC Betoambari Airport

Source: Researchers, 2023

The second obstacle is the incomplete facilities. Based on the results of the researcher's interview with Senior AVSEC, the obstacles experienced as seniors are not wanting to make pressments to subordinates and hoping to work discipline and in accordance with SOPs so that every day the work is maximized. Based on the results of the researcher's interview with Junior AVSEC, the obstacles experienced were that there were passengers who still did not understand the flight regulations, while based on the results of the researcher's interview with Basic AVSEC, the obstacles experienced were many passengers who were not educated about flying requirements and passengers who had a strong character at every level experienced The obstacles are different according to the level of work of each AVSEC, for example passengers who go berserk and kick equipment when checking. And based on the observation sheet, all indicators were implemented well.

CONCLUSION

3 of 2001 aviation security and safety has an important and strategic role in the operation of aviation so that its implementation is controlled by the state and its guidance is carried out by the government in a unified civil aviation security and safety service system, AVSEC officers carry out a safety briefing before starting to carry out their duties and after carrying out task. The Aviation Security Unit, while on duty, of course, does not always go well as desired at every level of position, of course, it experiences different obstacles, such as a lack of human resources, facilities, discipline that must always be maintained.

Based on the conclusions above, there are several suggestions that the authors hope can build a positive effect and are expected to bring good changes in the future, including: For AVSEC Officers at Betoambari Airport, it is hoped that they will continue to improve performance, be friendly and hold educational boards or information boards such as flow check-in so that passengers can prepare themselves and prepare their identity before arriving at the check-in counter. For future researchers, for future researchers, because there are still many deficiencies in this study, the variables used tend to be small.

BIBLIOGRAPHY

- Anggraeni, D. (2020). Pengaruh Safety Culture terhadap Keselamatan Penerbangan di Bandar Udara Tunggal Wulung Cilacap. Yogyakarta: Sekolah Tinggi Teknologi Kedirgantaraan.
- Balk, A., Montjin, C., & Piers, M. (2009). Safety Management System adn *Safety culture* Working Group (SMS): *Safety culture* Frame Work For The ECAST SMS-WG. Dutch National Aerospace Laboratory (NLR).
- Creswell, J. W. (2015). Research Design: Qualitative, Quantitative and Mixed Methods Approaches. Second Edition. California: SAGE Publication.
- Direktorat Jenderal Perhubungan Udara . (2019). Pengertian, Fungsi dan Peran Bandar Udara. Direktorat Jenderal Perhubungan Udara. (2019). Data Bandar Udara.
- Ibrahim. (2015). Metodologi Penelitian Kualitatif. Bandung: Alfabeta.
- Johanny. (2018, Februari 22). Pura-Pura Antar Teman.
- Keputusan Direktur Jenderal Perhubungan Udara Nomor: SKEP/40/II/95. (n.d.). Tentang Petunjuk Pelaksanaan Keputusan Menteri Perhubungan Nomor KM. 14 Tahun 1989 Tentang Penertiban Penumpang, Barang dan Kargo yang Diangkut Pesawat Udara Sipil.
- Keputusan Menteri Perhubungan Nomor KM 54 Tahun 2004. (n.d.). Tentang Program Nasional Pengamanan Penerbangan.
- Keputusan Menteri Perhubungan Nomor: KM 14 Tahun 1989. (n.d.). Tentang Penertiban Penumpang, Barang dan Kargo yang diangkut Pesawat Udara Sipil.

- Moleong, L. (2015). *Metodologi Penelitian Kualitatif (Edisi Revisi)*. Bandung: PT Remaja Rosdakarya.
- Otoritas Bandar Udara Wilayah V. (2021). *Sejarah Singkat Bandara Betoambari*.
- Peraturan Direktur Jenderal Perhubungan Udara Nomor: SKEP / 2765 / XII /2010. (n.d.). *Tentang Tata Cara Pemeriksaan Keamanan Penumpang, Personel Pesawat Udara dan Barang Bawaan yang Diangkut Dengan Pesawat Udara dan Orang Perseorangan*.
- Peraturan Direktur Jenderal Perhubungan Udara Nomor: SKEP/2765/XII/2010. (n.d.). *Tentang Tatacara Pemeriksaan Penumpang, Personel Pesawat Udara dan Barang Bawaan Yang Diangkut Dengan Pesawat Udara dan Orang Perseorangan*.
- Peraturan Direktur Jendral Perhubungan Udara Nomor: KP 241 Tahun 2014 . (2014). *Tentang Pedoman Pengoperasian, Pemeliharaan dan Pelaporan Fasilitas Keamanan Penerbangan*.
- Peraturan Menteri Perhubungan No. KM 20 Tahun 2009. (n.d.). *Tentang Sistem Manajemen Keselamatan*.
- Peraturan Menteri Perhubungan Republik Indonesia Nomor PM62 Tahun 2017. (n.d.). *Tentang Peraturan Keselamatan Penerbangan Sipil Bagian 19 (Civil Aviation Safety Regulations Part 19) tentang Sistem Manajemen Keselamatan (Safety Management System)*.
- Peraturan Pemerintah Nomor 03 Tahun 2001. (n.d.). *Tentang Keamanan dan Keselamatan Penerbangan*.
- Riolugus. (2020, Juli 6). *Sejarah AVSEC dan fungsi lisensi AVSEC Bandara*.
- Senong, A. A. (2021, Februari 11). *Digagalkan, penyeludupan telur penyu lewat Bandara Betoambari Baubau*.
- Sugiyono. (2016). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta.
- Undang-Undang No 1 Tahun 2009. (n.d.). *Tentang Penerbangan*.