# THE EFFECT OF THE NUMBER OF AVIATION SECURITY PERSONNEL DURING THE RECOVERY OF COVID-19 ON THE EFFECTIVENESS OF FLIGHT SECURITY

Ghana Kanafaro*, Anton Budiarto, Lusiana Dewi Kusumayati

*Politeknik Penerbangan Surabaya, Jemur Andayani I/73 Wonocolo Surabaya, Jawa Timur, Indonesia, 60236*
*Corresponding Author. Email: ghanakanafaro27@poltekbangsby.ac.id*

**ABSTRACT**
Safety is the main thing in the world of aviation, safety is not only in the air, but from the start of departure, namely at the airport where the plane departs, it is required to be safe and sterile from any danger. So in order to guarantee the security and safety of flights, in guarding from general areas to sterile areas, maximum and good performance of officers is required. With the condition of the airport which is located in the Manado area, North Sulawesi, namely Sam Ratulangi International Airport, Manado, it is experiencing limited Aviation Security personnel in the task of maintaining security for flight safety. This indicates the need to optimize Aviation Security performance activities, especially at Centralize at Sam Ratulangi International Airport, Manado. The research method used is qualitatively descriptive with reference to the regulation SKEP/2765/XII/2010 concerning "Procedures for Checking the Security of Passengers, Aircraft Crew, and Luggage to be transported by aircraft and individuals". By collecting data through observation, literature study, interviews, and documentation, the method used to test the data is by triangulation of sources, methods and theories. By using the Data Analysis technique used in the qualitative analysis has three stages, namely data reduction, data presentation, and conclusion and verification. The results of the study found that aviation security was less effective during the pandemic recovery period, resulting in a less optimal way of ensuring flight security and safety, which was influenced by the limited number of Aviation Security personnel.

*Keywords*           : Flight Safety, Optimization, Aviation Security

## 1. INTRODUCTION

North Sulawesi Province is in a strategic position directly dealing with East Asian and Pacific countries. Manado City as the Capital of North Sulawesi Province which has the potential to become a center of economic growth, must have adequate transportation facilities and infrastructure, both sea, land and air. Sam Ratulangi International Airport in Manado is an IB class airport, and is the second largest airport on the island of Sulawesi after Sultan Hasanuddin Makassar International Airport.

During the Covid-19 pandemic, Sam Ratulangi International Airport in Manado experienced a decrease in the number of passengers and the number of flights, so that several Aviation Security personnel were laid off because of the Covid-19 pandemic. The end of the pandemic, the number of passengers and flights has increased. With the increase in the number of passengers and flights, it has caused a buildup of passengers in SCP2 security at Sam Ratulangi International Airport, Manado, which has 24-hour operating hours. So that will not rule out the possibility of having a potential workload and effectiveness of aviation security if there is a buildup of passengers in SCP2.

In supporting flight security and safety, an airport has several requirements that must be met by airport managers. First, reliable human resources in terms of security, namely all aviation security personnel Aviation

security (Avsec). Aviation Security is a work unit formed by an airport or airport manager in compliance with international and national regulations as a manager and provider of airport security services that already (mandatory) have a license or certificate of competence for officers (STKP) who are given duties and responsibilities in aviation security sector. (Regulation of the Director General of Civil Aviation Number: SKEP/2765/XII/2010 Chapter I point 9). Second, adequate security equipment and according to needs and have safety equipment with good condition and pass the safety test of the device. Third, the procedures used must be clear and well implemented.

Based on initial observations that have been made, the Aviation Security unit has 130 people. The on duty schedule has been set per shift, there are 3 shifts namely morning, afternoon and evening. With a per-shift formation of 25-30 personnel. Officers in the Aviation Security unit certainly have a fairly high workload because they are fully responsible for maintaining flight security. With the number of passengers reaching 2900 passengers per day in the recovery period from the Covid-19 pandemic. Therefore, there is a need for security officers at the airport, namely Aviation Security. Aviation Security officers include officers who often deal directly with passengers, especially at Screening Check Point 2 (SCP) or security checkpoints for passengers,

people, aircraft personnel, and goods that will enter the waiting area at the airport terminal.

Aviation Security officers must provide services and security in accordance with procedures [1]. During the Covid-19 recovery period, Sam Ratulangi Airport experienced a cycle of increasing passengers, resulting in less than optimal security services due to several personnel being laid off during the pandemic. This caused several personnel on duty at the perimeter/protection point to help provide security at SCP2 when there was a buildup of passengers at SCP2. This can result in the escape of items that are prohibited from being brought into the aircraft cabin, such as scissors, matches, etc. due to the buildup of passengers and limited Aviation Security personnel.

The accumulation of passengers in the SCP2 (Screening Check Point) security area is caused by busy hours. With these busy hours, Sam Ratulangi Manado International Airport provides flight security facilities by operating 2 X-ray machines that are in SCP2 security. Busy hours include, morning 04.00-07.30 WITA, afternoon 09.30-13.30 WITA. In an effort to anticipate this, airport managers require evaluation and review with the aim of flight safety during the recovery from the Covid-19 pandemic. Based on the background that has been described, the authors are interested in raising this issue in writing with the title "THE EFFECT OF THE NUMBER OF AVIATION SECURITY PERSONNEL IN THE RECOVERY OF COVID-19 ON THE EFFECTIVENESS OF FLIGHT SECURITY AT SAM RATULANGI MANADO INTERNATIONAL AIRPORT"

## BRIEF THEORY

### 1.1. influence

"Influence is the power that exists or arises from something (people or objects) that contributes to shaping one's character, beliefs or actions." [2]. So, it can be concluded that influence is a power or force that arises from something, both people and objects and everything that exists in nature so that it affects what is around it.

### 1.2 Recovery Period

"An economic recovery following a recession to get the economy back." [3]. Recovery periods are usually marked by very high growth in domestic product, employment, corporate profits and other indicators.

### 1.3 Covid-19

In December 2019, an outbreak of pneumonia of unknown origin was reported in Wuhan, Hubei Province, China. Pneumonia cases were epidemiologically linked to the Huanan Seafood Wholesale Market. Inoculation of respiratory samples into human airway epithelial cells, Vero E6 and Huh7 cell lines, led to the isolation of a novel respiratory virus whose genome analysis showed it to be a novel coronavirus related to SARS-CoV, and therefore named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) [4].Covid-19 is an infectious disease caused by a newly discovered coronavirus. This new virus and the disease it causes were unknown before the start of the outbreak in Wuhan, China, in December 2019. Covid-19 is now a pandemic occurring in many countries around the world. [5]

### 1.4 Personnel

Personnel are people who carry out work in an office/government or private organization to achieve a certain goal, by getting compensation for services in the form of salaries and benefits [6]. Personnel can also be referred to as employees, who play an important role in the running of an organization, because employees are responsible for running organizational programs. Personnel play an important role in carrying out the management process. The success of management lies in the ability of managers to utilize personnel.

### 1.5 Aviation Security

*Aviation Security*are Aviation Security Personnel who have (mandatory) have a license or certificate of competence for officers (STKP) who are given duties and responsibilities in the field of aviation security. (Regulation of the Director General of Civil Aviation Number: SKEP/2765/XII/2010 Chapter I point 9). The main objective of aviation security is the safety of passengers, flight crew, officers and the general public against acts against the law by preventing the transport of goods that can endanger flights. Aviation Security is regulated in Annex 17 concerning security, ICAO DOC 8973, SKEP/2765/XII/2010 concerning procedures for checking the security of passengers, flight crew and luggage to be transported by aircraft and individuals. Decree of the Minister of Transportation number 14 of 1989 concerning controlling passengers,

*Aviation Security*in Indonesia itself Aviation Security Airport security is a work unit formed by PT. Angkasa Pura I / II in fulfilling international and national regulations as a manager and provider of airport security services. Law Number 15 of 1992 dated May 25 1992 concerning aviation, which is related to airport security, namely Chapter VIII article 3, which reads: "Airport operators are responsible for aviation security and safety and the smooth running of their services."

[7]In accordance with SKEP 2765 concerning Procedures for Security Checks Article 23, some of the duties and responsibilities of Aviation Security Officers are:

1. Document Check
2. Examination of passengers, baggage and cabin baggage
3. Reporting (Check-In)
4. Aircrew inspection
5. Examination of Transit & Transfer passengers
6. Weapon handling
7. Cabin & baggage handling
8. Handling special passengers
9. Examination of Pilgrims, cabin baggage and baggage
10. Supervision of the Check-In line to the waiting area and to the airside
11. Control of the path to and from aircraft
12. Cargo control
13. Classification

14. Delivery
15. Supervision
16. Handling of hazardous materials and/or goods
17. Postal Shipments
18. Diplomatic Dispatches

1.6 Airports

In accordance with the Law of the Republic of Indonesia Number 1 of 2009 [8], an airport is a land or water area with predetermined boundaries and is used as a place for landing or taking off aircraft, loading and landing passengers, stacking and disposing of merchandise, and a place for intra and multipurpose transportation. , which is equipped with an aviation welfare and security office, as well as a fundamental office and other support offices. city air means designated areas and waters (including all buildings, structures and hardware) intended to be used either in whole or to some extent for the appearance, flight and development of aircraft. In accordance with the guidelines of the Head General of Civil Aviation Number SKEP / 77 / VI / 2005 concerning Special Requirements for Airports, depending on the capacity of the air terminal can be isolated into 3, namely:

a. Airports which are visible hubs around the transportation network in accordance with their capacity development, namely airports which are the focus points of deployment and not the focus points of delivery.
b. Airports as entry points to public and global financial practice.
c. The airport is a training ground for changing modes of transportation.

From the problem identification description above, the authors formulate the existing problem, namely: Does the accumulation of passengers affect the workload of Aviation Security personnel and the effectiveness of aviation security at Sam Ratulangi Airport, Manado?

## 2. METHODS
### 2.1 Research Design
In accordance with the author's goal, namely to increase the author's knowledge and insight, in disclosing the problems that the author raises, a qualitative research method is needed that is descriptive, descriptive, and describes the object being studied. Descriptive qualitative research is a research using a case study method or approach [9]. This research focuses intensively on one particular object that is being studied as a case and case data can be obtained from all parties concerned [10]. In addition, the author can describe the facts related to the problems raised by the author. So that the facts and valid data will make it easier for the writer to analyze effective and efficient problem solving.

There are several stages or steps taken in conducting research with an evaluation approach, the following are the stages. This qualitative research is explored and deepened from social phenomena or the social environment which consists of actors, events, place and time [11]. The social setting is described in such a way that in conducting qualitative research it develops basic questions: what happened and how it happened; who was involved in the incident; When did it happen; where did it happen. In order to obtain reliable qualitative research results, there are still several requirements that must be followed as a qualitative approach, starting from data requirements, data search methods or techniques, data management to analysis. [12]

With this qualitative observation method, data will be in the form of photos, existing documents. during the research, observations were also carried out by conducting questions and answers or interviews to complete the research, as well as documenting it. This interview was shown to Aviation Security officers and aircraft passengers.
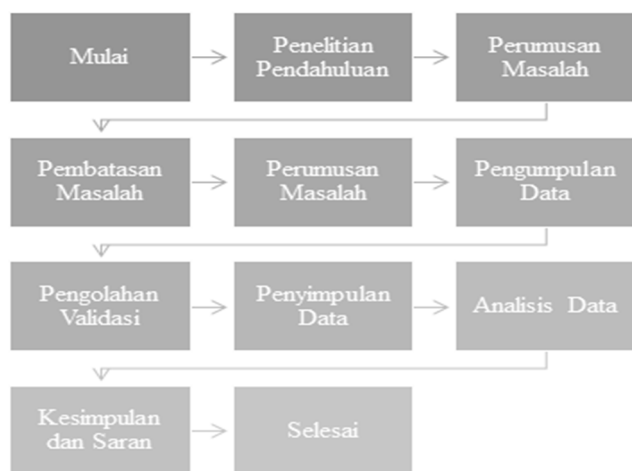


Figure 2.1 Research Design

1. Preliminary research, which is intended to find or compare research that has been carried out by someone with the same topic but the details of the problem are different.
   In this case the main topic is regarding the effectiveness of Aviation Security's performance during the recovery of the Covid-19 pandemic.
2. Problem Formulation, which is a short essay that contains questions about the topic raised by the author.
   In this case questions about the topic use the interrogative sentence whether, is there, how, and what.
3. Limitation of the problem, namely the scope of the problem that the researcher wants to limit because the problem is too broad or widened which can result in research being unable to focus.
   In this case the authors limit the problem only within the scope of tasks and performance of Aviation Security.
4. Problem Formulation, namely short writing that contains questions about the topic raised by the author.

In this case the author has prepared several questions regarding the effectiveness of Aviation Security's performance.

5. Data Collection, namely a method or technique carried out by researchers to collect data.
   In this case the author uses interview and observation methods aimed at Aviation Security officers.
6. Data analysis, namely data processing with the aim of finding useful information that can be used as a basis for decision making.

## 2.2 Research Subjects and Objects
### 2.2.1 Subject

Research subjects according to [13]defines the research subject as an object, thing or person where the data for the research variable is attached, and which is at issue. In a study, the research subject has a very strategic role because the research subject is the data about the variables that the research observes.

In this study, the research subjects were Aviation Security officers who were still active around 130 personnel at Sam Ratulangi International Airport in Manado. So that the information retrieval in this study is more accurate and directed if you take it from experts or elders or seniors.

### 2.2.2 Objects

In the Big Indonesian Dictionary, objects are things, cases, or people that are the subject of discussion. In other words, the object of research is something that is the focus of a study. [14]the main source of data in qualitative research is words, and the remaining actions are additional data such as documents and others. In line with Lofland's opinion, Moleong also said that the words and actions of the people who were observed or interviewed were the main data sources, in the form of notes or recordings, videos and photos or films. [15]

The research object is as follows "Research object is a variable or what is the point of attention of a study, while the research subject is a place where the variable is attached" [16]

In this study, the object includes the effectiveness of Aviation Security personnel during the recovery period for the Covid-19 pandemic when developments occurred in the world of aviation, including the accumulation of passengers.

## 3. RESULTS AND DISCUSSION
### 3.1 Field Observations                    (1)

Observation in the Big Indonesian Dictionary means careful observation or observation. According to [17], "observation is a data collection method used to collect research data through observation and sensing."

The purpose of observation is to describe the setting being studied, the activities that take place, the people involved in the activity, and the meaning of the event seen from the perspective of those seen in the observed event.

In this case the author made observations on the effectiveness of the performance of Aviation Security personnel during the recovery from the Covid-19 pandemic, because at this time there was often a buildup of passengers during rush hours, and to improve supervision the assistance personnel carried out to assist the shift guard.

At Sam Ratulangi International Airport in Manado, there are problems regarding the effectiveness of the performance of Aviation Security officers who are considered to be less than optimal and the need for optimization of Aviation Security officers, according to the results of observations carried out by the author during the implementation of On the Job Training (OJT) at Sam International Airport. Ratulangi Manado, among others:

1. Several Aviation Security officers were laid off due to the Covid-19 pandemic, so that during the pandemic recovery period there was a shortage of Aviation Security officers.
2. There were several posts that should have been on standby for Aviation Security officers but were empty because they had to help other posts.
3. There is an aid shift to help with the morning shift, where the crowds are busier.
4. Causing a duty schedule that confuses other officers.

During the implementation of On the Job Training (OJT) at the Aviation Security unit for 3 months, the shortage of Aviation Security personnel was caused by several personnel being laid off for pandemic reasons, and the aviation world had started to wake up or had started the recovery phase, but there had been no steps to start improving security. to face the recovery phase. With these explanations, it is necessary to optimize terminal security at Sam Ratulangi Manado International Airport.

### 3.2 Interviews

Interviews are conversations with a specific purpose. The conversation was conducted by two parties, namely the interviewer (interviewer) who asked questions and the interviewee (interviewer) who provided answers to the questions. [18].

The purpose and function of the interview is to obtain data or information from the source. Interview Objectives [19]:

1. Obtaining information directly to explain a matter or certain situations and conditions.
2. Obtaining data in order to influence a particular situation or person.
3. Complete an investigation

In this study, interviews were conducted directly, openly and unstructured to field personnel when carrying out field observations and observing documentation related to Aviation Security (AVSEC) activities to support aviation security, this intends to reassure the events and results of observations that were actually observed occurring. , as well as knowing the details of what

happened, where, when, why it happened, who was on duty, and how the handling was carried out when there was a decrease in flight security by Aviation Security personnel at Sam Ratulangi International Airport Manado.

Previously the author conducted Pre-Observation interviews [20]with several Aviation Security personnel before finding problems and understanding the information obtained from Aviation Security personnel regarding Aviation Security performance indicators in supporting aviation security. In conducting the interview, the author explores the information from the answers of Aviation Security officers by including the problems that occur. The author conducted Pre-Observation interviews with questions regarding the condition of Aviation Security's performance on aviation security, problems experienced by some personnel, and the assessment of the effectiveness of Aviation Security's performance in supporting aviation security during the recovery period.

After conducting interviews with informants and cross-checking with observational data to ensure the validity of the data. Furthermore, a unification is carried out between the data obtained from the results of interviews and observations by linking them based on the theory from the study of literature. From this it will be combined back into a data processing in the form of activities that have been carried out by Aviation Security (AVSEC) personnel as one of the efforts to increase the implementation to improve the effectiveness of the performance of Aviation Security Personnel in supporting flight security at Sam Ratulangi International Airport, Manado.

### 3.3 Documentation

Documentation according [21]is a method used to obtain data and information in the form of books, archives, documents, written numbers and pictures in the form of reports and information that can support research. Documentation is used to collect data and then reviewed [22, p. T.P].

The documentation used is using photos of the location of the SCP2 area and the security area which is focused on Aviation Security personnel taken by the author during their On The Job Training for three months.

### 3.4 Data Analysis Techniques

Data analysis is the process of systematically searching for and compiling data obtained from interviews, field notes and documentation by organizing data into categories, describing them into units, synthesizing them, compiling them into patterns, choosing which ones are important and which ones are learned, and draw conclusions so that they are easily understood by themselves and others. [23]. That the analysis has started since it was formulated and explained the problem, before going into the field and continuing until the writing of the research results [24].

In assessing the performance and effectiveness of Aviation Security personnel during the recovery from the Covid-19 pandemic, data analysis was carried out in this study, namely the process of properly collecting and compiling data obtained through observation, interviews, and various other materials which are of course related to security. flight at Sam Ratulangi International Airport Manado.

## 4. CLOSING
### 4.1 Conclusion

In the previous chapter, it was explained about airport conditions, activities, and several incidents of accumulation of passengers and the placement of Aviation Security officers in their duties, and also explained about how to handle them at Sam Ratulangi International Airport, Manado. It can be concluded that, in terms of Aviation security, as mentioned, is considered to be less than optimal and also less efficient because there is still a shortage of personnel that requires additional officers. Solutions that can be made in optimizing the performance of Aviation Security in supporting flight security at Sam Ratulangi Manado International Airport are short and long term handling,

### 4.2 Suggestions

Based on the conclusions above that have been explained regarding the effectiveness of Aviation Security performance in supporting flight security at Sam Ratulangi International Airport Manado, suggestions and input can be given that can improve flight security with a limited number of Aviation Security personnel such as being able to coordinate together, to call personnel who were laid off when the pandemic occurred, and were able to maximize existing security facilities at Sam Ratulangi Manado International Airport to support flight security and safety.

**REFERENCES**

[1] Abeyratne, R., "Aviation security law," *Springer Science & Business Media.,* 2010.

[2] K. B. B. Indonesia, Kamus Besar Bahasa Indonesia Pengertian Pengaruh, 2005.

[3] BPBD, "Pemulihan ekonomi menyusul resesi," 2007. [Online].

[4] Ciotti, M., Ciccozzi, M., Terrinoni, A., Jiang, W. C., Wang, C. B., & Bernardini, S., "The COVID-19 pandemic," *Critical reviews in clinical laboratory sciences, ,* pp. 365-388, 2020.

[5] W. H. O. WHO, "Coronavirus and Pandemic Covid-19," 2020. [Online].

[6] Finan, F., Olken, B. A., & Pande, R, "The personnel economics of the developing state.," *Handbook of economic field experiments,* pp. 467-514, 2017.

[7] Silvianda, S., Sihombing, I. M., & Erma, Z., " Legal review of airport pass service at the airport authority office in region ii medan when entering the security restricted area.," *LEGAL BRIEF,* 2023.

[8] R. Indonesia, Undang-Undang Nomor 1 Tahun 2009, 2009.

[9] Roberts, K., Dowell, A., & Nie, J. B., "Attempting rigour and replicability in thematic analysis of qualitative research data; a case study of codebook development.," *BMC medical research methodology,,* p. 19, 2019.

[10] G. Easton, "Critical realism in case study research.," *Industrial marketing management,* pp. 118-128, 2010.

[11] Gerrits, L., Marks, P., & van Buuren, A., Coevolution: A constant in non-linearity., 2009.

[12] Ghony, "syarat penelitian kualitatif," 2013.

[13] S. Arikunto, "Manajemen Penelitian," Jakarta, Kencana Prenama, 2016.

[14] Moleong, "penelitian kualitatif," 2012.

[15] Moleong, "sumber data utama penelitian," 2012.

[16] S. Arikunto, Prosedur Penelitian Suatu Pendekatan Praktek, Jakarta: Rineka Cipta, 1998.

[17] Bungin, Metode Penelitian Kualitatif, Jakarta: Kencana Prenama, 2007.

[18] Moleong, "wawancara, interview," 2005.

[19] Zainal, 2010. [Online]. Available: https://info.populix.co/articles/wawancara-adalah/.

[20] Sulistyowardani, M., Mambu, J. E., & Pattiwael, A. S., "Indonesian Journal of Applied Linguistics," *Indonesian EFL teachers' cognitions and practices related to social justice.,* pp. 420-433, 2020.

[21] Sugiyono, *Dokumentasi dalam melakukan penelitian termasuk buku, arsip, dokumen, tulisan angka,* 2015.

[22] T. P. Data, Observasi. Wawancara, Angket dan Tes..

[23] Sugiyono, *Analisis untuk mencari data yang di peroleh dari hasil wawancara, catatan lapangan, dan dokumentasi,* 2012.

[24] W. Yuliani, "Metode penelitian deskriptif kualitatif dalam perspektif bimbingan dan konseling.," *Quanta,* pp. 89-91, 2018.