

Performance Analysis of Apron Movement Control Officers in Supervising Vehicle Traffic to Achieve 3S+1C at the Apron of Juanda International Airport, Surabaya

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Abstract

Juanda International Airport in Surabaya is the largest airport in East Java serving domestic and international flights. How is the performance of Apron Movement Control (AMC) officers in supervising vehicle traffic in order to achieve 3S + 1C at Juanda International Airport What are the efforts of Apron Movement Control (AMC) officers in supervising vehicle traffic in order to achieve 3S + 1C at Juanda International Airport The performance of Apron Movement Control (AMC) officers to supervise vehicle traffic in order to achieve 3S + 1C at Juanda International Airport. The performance of Apron Movement Control (AMC) officers in supervising vehicle traffic in order to achieve 3S + 1C at Juanda International Airport. This research was conducted using qualitative methods. by collecting primary data, secondary. The primary data in this study used interviews, observation, and data collection in the form of pictures or documentation during the activity. for secondary data in the form of data documentation of vehicle traffic control activities. After being collected, data processing was carried out using triangulation techniques. The results of this study are that Apron Movement Control Officers must carry out strict and optimal supervision of vehicle traffic by conducting Apron Patrols, Random Checks and periodic inspections of Officers, Operators, vehicles and facilities. As well as carrying out work in accordance with SOPs and other applicable regulations so that operations run smoothly in accordance with regulations and perform optimal service and be responsive to conditions or potential that may occur.

Keywords: AMC, Airside, Airport, 3S+1C



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INTRODUCTION

Juanda International Airport is located in Sedati District, Sidoarjo Regency, East Java with IATA code: SUB and ICAO: WARR. This airport is only 20 kilometers south of Surabaya. Juanda International Airport in Surabaya is managed by PT Angkasa Pura I. The airport was proposed by Indonesia's last Deputy Prime Minister (Waperdam), Ir. Juanda Kartawidjaja. Juanda International Airport is second in Indonesia for the number of aircraft and passenger movements, behind only Soekarno-Hatta International Airport. This airport has the capability to fly throughout East Java, including Surabaya and the Gerbangkertosusila area. Juanda International Airport in Surabaya has a runway length of 3000 m and a terminal area of 51,500 m², about twice the old terminal which was only 28,088 m². There is also a parking area of 28,900 m² which can accommodate more than 3,000 cars.

To make Juanda International Airport the best, the Apron Movement Control (AMC) unit pays great attention to apron management. AMC's goal is to optimize the usability of the apron so that it can perform the best procedures, or 3S + 1C. Apron Movement Control (AMC) is responsible for all activities related to flight operations services, such as overseeing the movement of aircraft, traffic of vehicles, people and goods, cleaning on the air side, recording flight data, and writing task reports. AMC is also responsible for managing and supervising all

traffic movements in the apron area. This unit is under AMC and is also directly related to ATC and Ground Handling.

The author found some safety issues during the preliminary study. One of the problems is that garbage trucks cross Service Road and pick up trash that is there. After picking up the trash, the dump truck hit the Service Light Panel on the apron and fell from its seat, fortunately no fire started. From this issue, we know that security, safety and security are important factors in aviation, safety (safety) gives the most important role to passengers. Security (security) is an obstacle in flight both at the airport and when flying. Services, in this case flights, must have adequate facilities and infrastructure for domestic and international flights. To ensure safe and comfortable service at the airport, especially at the Apron. Apron Movement Control (AMC) is expected to carry out its duties and functions in accordance with predetermined work procedures. Apron Movement Control (AMC) must be able to act decisively in accordance with procedures in managing, supervising and controlling the movement of aircraft and other activities on the apron.

The author wants to find out more about how Apron Movement Control (AMC) unit officers manage, supervise and control aircraft movements and what role AMC plays in optimizing apron management procedures to ensure apron safety, security and service in accordance with existing regulations. As a result, I took the title "Analysis of the Performance of Apron Movement Control Officers (AMC) in Supervising Vehicle Traffic to Achieve 3S + 1 C at the Apron of Juanda International Airport, Surabaya." The purpose of this research is to find out: The performance of Apron Movement Control (AMC) officers to supervise vehicle traffic in order to achieve 3S + 1C at Juanda International Airport. The efforts of Apron Movement Control (AMC) officers in supervising vehicle traffic in order to achieve 3S + 1C at Juanda International Airport.

Theoretical basis

Devi Mulyawati (2017) conducted previous research on the ability of Apron Movement Control (AMC) to achieve 3S + 1C at Bandung's Husein Sastranegara Airport. This research investigates how Apron Movement Control Officers (AMC) organize, supervise, and control all movements in the Movement Area, so as to achieve the 3S + 1C principle. The results of this study are that AMC officers have the ability to complete their duties by managing and supervising movements that occur on the apron and all activities that occur in the movement area to achieve 3S + 1C. Research by Endang Dwi Agustini (2016) on Flight Safety and Security Performance at Juwata Tarakan Airport shows that the safety management system (SMS) is very effective in improving the operational security and safety of Juwata Tarakan Airport. In addition, as Walid Jumlad pointed out in the Performance Analysis of Apron Movement Control for Safety at Husein Sastranegara International Airport (2020), this analysis shows that the AMC unit is significantly responsible for preventing ground collisions. According to SKYbrary, a ground collision occurred while the aircraft was taxiing onto or off the runway. Juanda International Airport is located in Sedati District, Sidoarjo Regency, East Java. It's only 20 km south of Surabaya. PT Angkasa Pura I runs Juanda International Airport. Initially, this airport was an airbase made for the Navy and changed its function as a commercial airport. and Over time, the frequency of civil aviation activities there has also increased. Until finally a special terminal was built to serve civil and international flights.

Airport definition

Based on Annex 14 of ICAO (International Civil Aviation Organization): "Airport is a certain area on land or water (including buildings, installations and equipment) which is

intended either in whole or in part for the arrival, departure and movement of aircraft. According to PM 39 of 2019 concerning Orderairport, airport is an area on a flat or water area with boundaries,certainWhichusedas a place for aircraft to land and take off, board passengers, load and unload goods, and place for intra- and inter-modal transfersbe equippedwith aviation safety and security facilities, as well as basic facilities and other supporting facilities

Airport Facilities

There are areas at the airport that you can enter and some that you can't. Those without airport identification or passports, as well as those with airport passes, cannot enter areas not listed on their airport pass. This area is divided into two, namely: Restricted Public Area: is a restricted area which is a public area, but limited for officers and passengers who have tickets, for example: the check-in counter area. Non Restricted Area: is an operational area within the airport environment that is not intended for the public, for example: passenger waiting rooms and aprons.

Aprons

Aprons is a place where aircraft are parked, loaded and unloaded, refueled, or boarded. In addition to the aircraft parking area, the apron functions as: Boarding and disembarkation of passengers. Loading and unloading of goods or cargo. Aircraft refueling. Aircraft maintenance and technical inspection.

Apron Movement Control(AMC)

Aprons Movement Control responsible for determining the location of the aircraft parking after receiving predictions from the ADC or Tower unit. (Afen Sena/2008).AMC works closely with Aerodrome Ground Handling and Control to make aircraft management easier and more efficient. As stated in PM 37 of 2021 concerning Airport Personnel, competency certification is a requirement. Competency Certificates show that a person has met the required knowledge, skills and qualifications required in their field. The work process of the Apron Movement Control Unit (AMC) must be regulated. Given the many potential hazards associated with the movement of aircraft, ground control and people in the apron area, this all guarantees a ready-to-use apron, which means that the apron is truly safe, calm and smooth to carry out the tasks assigned to each division.Purpose of Apron Movement Control (AMC) Procedure: Provide guidance on safety aspects while carrying out duties as Apron Movement Control (AMC). Prevent accidents on ramps, in the form of passenger and goods accidents, aircraft and Ground Support Equipment (GSE).

Vehicle Traffic On Apron and Service Road

According to Lukman Saputra (2018), vehicle traffic is vehicles that move on the apron and Service Road using predetermined vehicles. They are also not allowed to get into any vehicle, either according to existing regulations or other regulations.

Safety, Security, Service and Compliance(3S + 1C)

If the AMC unit has carried out or fulfilled supervision by prioritizing safety, security, service and compliance (3C + 1C) aspects, then the role of supervision carried out by the AMC unit in operational activities will be clear. The Directorate General of Civil Aviation, as a regulator, is committed to implementing the 3S + 1C slogan to improve aviation safety, security and services without compromising all regulations that have been set to achieve Zero Accidents.

Relevant Research

Table 1.Relevant Research

No.	Name	Year	Research Title	Research Result
1	Devi Mulyawati	2017	Apron Movement Control (AMC) capability to achieve 3S + 1C at Bandung Husein Sastranegara airport.	AMC officers have the ability to carry out their duties to regulate and supervise movements that occur on the apron and all activities in the movement area to achieve 3S + 1C.
2	Endang Dwi Agustini	2016	Aviation Security and Safety Performance at Juwata Airport, Tarakan.	To improve operational security and safety at Juwata Airport in Tarakan, the Security Management (SMS) service was successful.
3	Dodi Julian	2018	Analysis of the Implementation of Standard Operating Procedures in Improving Work Safety in the Apron Area at Raden Inten II Airport in Lampung	The Standard Operational Procedure for Safety Monitoring Operations at Radin Inten II Airport Lampung consists of four control systems, all of which meet the requirements of CASR 139.

RESEARCH METHODS

Research design

This research was conducted using qualitative methods. Moleong (2017) states that the purpose of qualitative research is to gain a thorough understanding of the phenomena studied from research subjects, such as behavior, thinking, motivation, operations, etc. By using descriptive words and formal language used in the natural environment and research methods, the aim of qualitative research is to gain a thorough understanding of the research subject. Sugiyono (2016) explains that qualitative research methodology comes from post-positivism philosophy, and in research on natural objects, the main tool used by researchers is research. Triangulation (combined) techniques are used to collect data, and the analysis is carried out inductively or qualitatively. The research results emphasize more meaning than generalization. Sugiyono (2016) states that qualitative research uses researchers as the main tool to investigate the condition of natural objects.

According to Moleong (2017), qualitative research is a type of research that aims to understand the phenomena experienced by research subjects, such as behavior, perceptions, motivations, actions, etc., as a whole and in a way described in words and language, in the context naturally and with some natural methods. This definition clearly shows that qualitative research needs a natural setting to produce results.

Data Types and Data Sources

1. Primary data. Primary data is data collected directly from sources without using intermediary media. Examples of primary data include individual or group opinions, interviews, observations that collect supporting data and retrieve data with documents such as photos of activities, and other data that comes from the Apron movement control unit (AMC).
2. Secondary Data. Secondary data is the collection of information that you want to know from existing data. Secondary data sources include previous research, government publications, company records or documentation, medical industry analysis, and websites on the internet.

Data Collection Technique

1. Observation Method. According to Sugiyono (2017), Observation as a data collection technique has specific characteristics when compared to other techniques. Observations

were made by looking directly at the field. in this stage the author directly observes the role of the Apron Movement Control (AMC) at Juanda International Airport in Surabaya, on apron management and implementing 3S + 1C on the Apron. The Observation Sheet is in the attachment.

2. Interview Study. According to Sugiyono (2017), interviews are used as a data collection technique if the researcher wants to carry out a preliminary study to find problems to be studied, and if the researcher also wants to know things from respondents that are more in-depth and the number of respondents is small. In this study, interviews were conducted with managers or Apron Movement Control (AMC) officers at Juanda International Airport, Surabaya. The author will collect interview data from 03 July 2023 to 07 July 2023, with Airside Operations Team Leaders, Airside Operations Staff, AMC Supervisors, and AMC Members. And the Interview Sheet is in the attachment. Supervisor, Mr. Limeina Galih, Airline Service Team Leader, Mr. Muhammad Arifin, will be interviewed.
3. Documentation Method. According to Sugiyono (2015) states that Documentation is a way of collecting data from writing or taking pictures from the company. Documentation in the form of writing, for example company history, regulations, or manual books. While in the form of images such as photos. In this stage, the author took several pictures in the Apron, Runway and Taxiway areas. As well as hard copies of documents regarding Juanda International Airport in Surabaya, such as interview documentation, 3S + 1C implementation documentation and Apron Management.

RESEARCH RESULTS AND DISCUSSION

How do Apron Movement Control (AMC) officers supervise vehicle traffic in order to achieve 3S + 1C at Juanda International Airport?

Based on Informant 1, for Juanda International airport in Surabaya, 3S + 1C greatly influences AMC officers, and 3S + 1C has been fulfilled because Officers carry out periodic checks for operators. vehicles and optimizing CCTV to increase surveillance on the Apron and increase the frequency of Patrols on the Apron. Apron Movement Control officers to supervise vehicle traffic in order to achieve 3S + 1C are by conducting apron patrols and conducting random checks on operators and vehicles using aprons. the above actions are carried out with the aim of minimizing accidents caused by vehicles that are not suitable for use or operators who are not competent on the vehicles used.

Based on Informant 2, for the Juanda International airport in Surabaya, 3S + 1C greatly affects AMC officers, and 3S + 1C has not been fully fulfilled due to a lack of AMC officers, for 1 shift it only consists of 10 people covering Terminal 1 and Terminal 2, but Apron Movement Control Officers have carried out their work in accordance with the SOP and other rules that apply to the fullest even with a shortage of officers. Based on Informant 3, at Juanda International airport in Surabaya, 3S + 1C greatly influences AMC officers, and 3S + 1C has been fulfilled because 3S + 1C can be a benchmark that Apron Movement Control is Optimal or not. *Safety* (Safety), AMC officers prioritize safety where every officer must wear boots and a safety vest when on the apron. Security, security carried out by AMC officers to supervise airline officers or other officers who are on Airside to work according to what is already in effect. and Services AMC officers provide services, one of which is in the form of using Aviobridge services for airlines, Parking Stand services, and Follow Me cars for use on airplanes that need them. as well as Compliance (Compliance with applicable regulations) AMC officers supervising what happens on the apron must comply with applicable regulations. AMC officers must also ensure that operations run smoothly in accordance with regulations and provide optimal service and

responsibility for conditions or potentials that will occur. to anticipate, especially when abnormal conditions occur (bad weather, technical problems, etc.).

So from the presentation of the 3 informants above, it can be concluded that the Apron Movement Control Officer must carry out strict and optimal supervision of vehicle traffic by conducting Apron Patrols, Random Checks and periodic inspections of Officers, Operators, vehicles and facilities. As well as carrying out work in accordance with SOPs and other applicable regulations so that operations run smoothly in accordance with regulations and perform optimal service and be responsive to conditions or potential that may occur.

What are the efforts of Apron Movement Control (AMC) officers in supervising vehicle traffic in order to achieve 3S + 1C at Juanda International Airport?

According to informant 1, the efforts of Apron Movement Control officers in supervising traffic are by increasing patrols which are the responsibility of AMC and optimizing the CCTV that has been provided so that supervision can be more efficient and maximal. In resource person 2, the efforts of Apron Movement Control officers in supervising traffic are: Carrying out routine and random surveillance, inspecting vehicles, operators and existing facilities randomly, and conducting periodic inspections of existing vehicles, operators and facilities. Resource person 3, said that the most important thing is to carry out tasks according to the main tasks and functions that have been stated in the job desk according to their responsibilities and carry out air side operational tasks according to applicable regulations, both laws, ministerial decrees, ministerial regulations and internal circulars in the company. so that the Key Performance Index (performance indicator) in service can be achieved/fulfilled.

So there are several efforts that will be made by Apron Movement Control officers in supervising vehicle traffic. efforts to increase patrols randomly and periodically/routinely, optimize the use of CCTV, inspect all facilities and officers and operators randomly or periodically so that they can carry out their duties in accordance with the job desk and responsibilities and carry out airside operational tasks in accordance with applicable regulations in laws, ministerial decrees, ministerial regulations and company internal circulars. so that performance indicators can be met or achieved.

What are the actions or solutions for Apron Movement Control Officers, if someone violates the 3S + 1C?

From some of the questions above, what if unwanted things happen? According to informant 1, if an officer or operator commits a violation, they will be given a warning, warning and punishment. Statement from informant 2, if someone commits a violation, they will be given guidance to those who violate it and provide sanctions if the violator has done it more than once with the same mistake. while from Source 3 said that if someone commits a violation they will get a reprimand, briefing, refreshing regulations against the violator.

So the actions given by Apron Movement Control officers, among others, will give warnings to officers or operators who make mistakes or violate and give warnings so that similar incidents do not happen again. provide guidance to officers who make mistakes or violate and provide sanctions or punishment if they have committed similar incidents more than once with the same mistake.

What is the procedure or how is the Apron Movement Control Officer handled in the event of an accident on a Service Road?

If an accident occurs, there are several procedures that will be carried out by Apron Movement Control officers. Opinion from Source 1, Apron Movement Control Officer will carry

out inspections of vehicles and operators, conduct analysis and collect evidence, and make incident reports to be forwarded to superiors. Mitigate or follow up so that similar incidents do not recur. Informant 2 said that, if there is an accident on Service Road, what is done is: Closing the accident area / location (sterilization), Helping accident victims, After carrying out an investigation by the competent party, then AMC asks the company concerned to move (evacuate) the vehicle together with a competent team to mitigate the accidents that occur. And from the opinion of Source 3,

For procedures in the event of an accident, what will be carried out by the apron movement control officers are: Closing the accident area / location (sterilization), Assisting accident victims, identification and investigation, After carrying out an investigation by the competent party, AMC asks the company concerned to move (evacuation) of the vehicle, Together with a competent team to mitigate the accident that occurred, and make an incident report to be forwarded to superiors.

CONCLUSION

3S + 1C at Juanda International Airport in Surabaya has been fulfilled but there are a number of notes that must be corrected, such as Juanda Surabaya International Airport must add personnel to the AMC unit to make it more efficient and optimal in supervision, especially supervision at the Apron and other AirSide Facilities. Apron Movement Control Officers Must carry out strict and optimal supervision of vehicle traffic by conducting Apron Patrols, Random Checks and periodic inspections of Officers, Operators, vehicles and facilities. As well as carrying out work in accordance with SOPs and other applicable regulations so that operations run smoothly in accordance with regulations and perform optimal service and be responsive to conditions or potential that may occur. Efforts made by Apron Movement Control officers in monitoring vehicle traffic. efforts to increase patrols randomly and periodically/routinely, optimize the use of CCTV, inspect all facilities and officers and operators randomly or periodically so that they can carry out their duties in accordance with the job desk and responsibilities and carry out airside operational tasks in accordance with applicable regulations in laws, ministerial decrees, ministerial regulations and company internal circulars. so that performance indicators can be met or achieved. If an accident occurs in the airside area, the actions given by the Apron Movement Control officer include giving a warning to the officer or operator who made a mistake or violated it and given a warning so that similar incidents do not happen again. provide guidance to officers who make mistakes or violate and provide sanctions or punishment if they have committed similar incidents more than once with the same mistake. For procedures in the event of an accident, what will be carried out by the apron movement control officers are: Closing the accident area / location (sterilization), Assisting accident victims, identification and investigation, After carrying out an investigation by the competent party, AMC asks the company concerned to move (evacuation) of the vehicle, Together with a competent team to mitigate the accident that occurred. and make an incident report to be forwarded to superiors.

SuggestionFor Juanda International Airport in Surabaya, Juanda International Airport in Surabaya must maintain what has been done starting from SOP, actions to be taken, safety, security, service, and compliance. but there are a number of notes that must be corrected in the form of adding supporting facilities so that traffic control is more optimal, and adding personnel to increase the effectiveness of supervision. For future researchers, to carry out further research, it is best if the researcher conducts interviews directly with informants and adds other informants in order to obtain more specific and more varied data.

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