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## Monitoring Analysis of the Apron Movement Control Unit (AMC) on Bus Maneuvering in the Airside Area during Hajj Flights at Adi Soemarmo Boyolali Airport

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#### **Abstract**

Adi Soemarmo Boyolali Airport is one of the airports used for Hajj departures. There are so many pilgrims who make movements in the airside area, a lot of supervision is required for the maneuvering of buses and pilgrims. This activity forced the AMC unit to carry out surveillance in the airside area. Because the airside area is an area that not everyone can enter without permission from the airport. This study uses a qualitative method. Data collection techniques in this study were in the form of observation, interviews, and documentation. The techniques in analyzing the research data are in the form of data reduction, data presentation, conclusion drawing, and data validity. This supervision is carried out on buses and passengers who will make pilgrimage flights, so that operations run smoothly and regularly. Obstacles in the supervision of the Apron Movement Control (AMC) unit towards maneuvering buses in the Airside area during Hajj flights at Adi Soemarmo Boyolali Airport are related to weather factors and the lack of knowledge of passengers about the rules in the Airside area.

**Keywords:** Supervision, Maneuvering, Pilgrims



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#### INTRODUCTION

Transportation is the transfer of people or goods from one place to another using a vehicle driven by humans or machines. Transportation is used to facilitate humans in carrying out daily activities. According to Purnomo Sugeng (2015) in wiguna, transportation is the activity of moving goods (cargo) and passengers from one place to another. In transportation there are two most important elements, namely the transfer/movement (movement) and physically changing the place of goods (commodity) and passengers to another place.

Transportation is one of the facilities for an area to progress and develop and transportation can increase the accessibility or relationship of an area because accessibility is often associated with the area. Developments in the world of transportation continue to grow over time and there are many requests for modes of transportation, especially for the world of aviation. Considering that our country is an archipelago, it is necessary to have transportation to reach certain areas and to support the economy and tourism. The Indonesian state needs air transportation because it is the right means for moving from one island to another, which has a fast and efficient transportation system.

PT. Angkasa Pura 1 is a BUMN (State Owned Enterprise) company that provides air traffic and airport business services in Indonesia which focuses on services in the central part of Indonesia and the eastern part of Indonesia (Priyanto, n.d.) History of PT Angkasa Pura I (Persero) or also known as Angkasa Pura Airports as a pioneer in the commercial operation of airports in Indonesia dating back to 1962. At that time, President Soekarno had just returned from the United States. He emphasized his wish to the Minister of Transportation and the



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Minister of Public Works that airports in Indonesia could be on par with airports in developed countries. PT Angkasa Pura I (Persero) must be able to create good interactions and prospects for the quality of Airport Operations services, so as to realize the right target by preparing management and carrying out arrangements and supervision of operational service activities on the land side and on the air side.

In its operation, each airport must have a work unit tasked with supervising order, and all activities in the airside area. for take-off and landing activities, there are three parts on the air side, namely the runway, taxiway and apron, namely the Apron Movement Control (AMC) unit, of course to achieve smooth operational services on the airside because the job of the Apron Movement Control (AMC) unit is to supervise Ground Service operator services and be responsible for flight operations, passenger and goods service activities as well as cleanliness in the side areas. air as well as recording of the world of aviation so that aviation security and safety can be achieved. Then the Apron Movement Control (AMC) function is to supervise vehicle traffic on the airside, one of which is during the Hajj season.

As one of the Indonesian Hajj embarkation airports, the Apron Movement Control (AMC) unit at Adi Soemarmo Boyolali Airport certainly has an increasingly heavy workload. Operation hours at the airport will be 24 hours while still dividing work time. One of the things that becomes the supervision of the Apron Movement Control (AMC) unit when there is a haj flight is the movement of the special hajj transport bus (Damri) from or to the plane, totaling 8 buses which, if not supervised, will cause chaos on the air side. Among them are erratic weather such as rain when the bus is moving towards the plane so that the bus movement is irregular, there is FOD (Foreign Object Debris) which causes minor incidents.

FOD has two meanings, namely Foreign Object Debris and Foreign Object Damage, debris is debris or foreign matter that can damage and disrupt flight while damage is damage caused by the debris. Foreign Object Debris (FOD) is a foreign object on the air side (apron, taxiway and runway) that can cause damage to aircraft during the take off and landing phases. There are many FODs in the airside area, therefore the airside area must always be clean and sterile from foreign objects that can cause damage to the structure and performance of the aircraft which in turn disrupts the safety and security of an flight (SARI 2017). As with animal carcasses, animals around the airside and foreign object debris that interferes with flight activities.

Based on the problems above, the researcher is then interested in raising research with the title "Analysis of Supervision of the Apron Movement Control (AMC) Unit for Maneuvering Buses in the Airside Area During Hajj Flights at Adi Soemarmo Airport, Boyolali". Based on the background above, there are several problems that will be discussed in this proposal, including the following: How is the Apron Movement Control (AMC) unit monitoring the maneuvering of buses in the airside area during Hajj flights at Adi Soemarmo Boyolali Airport? How to maneuver the bus in the airside area during the Hajj flight at Adi Soemarmo Boyolali Airport? What are the obstacles in monitoring the Apron Movement Control (AMC) unit on maneuvering buses in the airside area during Hajj flights at Adi Soemarmo Boyolali Airport?

The objectives of this study are: To find out how the Apron Movement Control (AMC) unit supervises the maneuvering of buses in the airside area during Hajj flights at Adi Soemarmo Boyolali Airport. To find out how to maneuver buses in the Airside area during Hajj flights at Adi Soemarmo Boyolali Airport. To find out the obstacles to monitoring the Apron Movement Control (AMC) unit on bus maneuvering in the Airside area during Hajj flights at Adi Soemarmo Boyolali Airport



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## Airport

In order to implement the provisions of Article 58 and Article 185 b, it is necessary to stipulate Article 185 b of the Job Creation Law Number 2020 Year 1I, Decree on the Implementation of the Aviation Sector. Airports, Air Transportation, Aviation Navigation, Safety and Security, Environment, and other Supporting Agencies and Public Authorities. (RI Law, 2015).

## Adi Soemarmo Airport

Adi Soemarmo Airport was formerly called the Panasan Air Base (Lanud), because it was located in the Panasan area. Adi Soemarmo Airport was first built in 1940 by the Dutch Government as an emergency airfield. When the Japanese troops entered Indonesia, Adi Soemarmo Airport was destroyed by the Dutch but was rebuilt by the Japanese government in 1942 as a military base for naval aviation (Kaigun Bokusha). After the Proclamation of Independence of the Republic of Indonesia, the operation of the airport was carried out by Surakarta Aviation which was inaugurated on February 6, 1946. On May 1, 1946, Surakarta Aviation changed to the Panasan Air Base "which was only intended for military flights. The air base was officially used for the first time for commercial flights in on April 23, 1974 served by Garuda Indonesia with the route Jakarta-Kemayoran-Solo & Solo Jakarta-Kemayoran with a frequency of 3 times a week On July 25, 1977. Air Base Panasan changed its name to Adi Sumarmo Main Air Base which was taken and the name Adisumarmo Wiryokusumo (younger brother and Agustinus Adisucipto) On March 31, 1989. This airport was designated as Adi Soemarmo International Airport by serving Solo-Kuala Lumpur & Solo-Singapore routes.On January 1, 1992, Adi Sumarmo Airport was managed by the Public Company Angkasa Pura I which on January 1 1993 changed its status to Limited Liability Company Angkasa Pura I until

## **Apron Movement Control Unit (AMC)**

Apron Movement Control (AMC) is a unit designated to oversee all traffic movements on the Apron. In a broad sense, the Apron Movement Control (AMC) Unit is designated for monitoring all traffic movements in the Apron area which includes aircraft parking placement services, vehicle movement control, people movement in the airside area, Ground Handling arrangements, aviobridge monitoring and flight data administration. in the airside area.

#### Airside

In his book Airport Management I.G.P Mastra (2012) explains the Airside of an airport is designed and managed to accommodate the intensity of air flights at the time of arrival and departure. Air Side/Air Side, is an area within an airport that is closed to the public (not to the public). To enter it must undergo inspection and have a special permit. The areas inside the airside are as follows: Apron, is an area in the airport that is designated as a place for aircraft parking, refueling aircraft, minor maintenance for aircraft, boarding and dropping of passengers, baggage, cargo and postal delivery. This area was built side by side with the terminal building to facilitate the efficiency of these activities. Taxiway, is a connecting line between the runway and the apron which functions as an aircraft path that connects the runway, terminal building, and maintenance hangars (L. arisputranto, 2011). Runway, is a rectangular path that is designated as a preparation place for aircraft to land (landing) and take off (take off).



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## Hajj Transport

Referring to the regulation of the Minister of Religion of the Republic of Indonesia Number 25 of 2015 concerning the provision of air transportation for regular pilgrims, namely the provision of air transportation for pilgrims aims to get air transportation executors who can provide services and protection for pilgrims in carrying out the pilgrimage from Indonesia to Arabia. Saudis and vice versa. Hajj Air Transport is commercial air transportation for the purposes of transporting Indonesian Hajj pilgrims which is carried out based on a charter contract between the Ministry of Religion and the operator of Hajj air transportation. Hajj flights from Indonesia to Saudi Arabia are charter flights and without transit. This means that the planes of pilgrims from Indonesia will fly from each embarkation area to Saudi Arabia directly or Direct Flight, unless there are reasons for safety and refueling.

## **Supervision**

Supervision/control according to Earl P. Strong (as quoted in Deasy Tampongangoy, 2016) is the process of regulating various factors within a company, so that implementation is in accordance with the precisions in the plan. Supervision according to Sarwoto (2010) is an attempt so that a job can be carried out according to a predetermined plan, and with supervision it can minimize obstacles, while obstacles that have occurred can be immediately identified which can then be carried out corrective actions. In this study what is meant by supervision is a process of carrying out activities that supervise users of equipment operating on the air side. The types of supervision include the following: Direct supervision is supervision carried out by a manager or leader when activities are being carried out. Indirect supervision is supervision carried out from a distance which is conveyed by subordinates such as written reports and oral reports.

## **Maneuvering**

Translated from English, the Maneuvering Area is that part of an airport that will be used by aircraft for take-off, landing and taxiing, excluding aprons and areas designed for aircraft maintenance. While the Movement Area is part of the airport which consists of the Maneuvering Area and Apron. So it can be said that the Maneuvering Area is part of the Movement Area. Inside the Movement Area consists of several parts which are the area for aircraft movement, including the Runway, Taxiway and Apron.

#### **Relevant Research**

Table 1. Relevant Research

No	Name	Title	Year	Result Research
1	Billyawan Kurnia Bekty	Monitoring Analysis of the AMC (Apron Movement Control) Unit on 2019 Hajj Charter Flights at Syamsudin Noor Airport, Banjarmasin	2020	The test results show that from the secondary data that analyzes the AMC unit documents are Follow Me Car services, aircraft parking placements, special terminals for Hajj flights and Hajj flight schedules, based on the AMC standard operating procedure unit SOP data, namely Follow Me Car services for aircraft parking placements, hajj flight special terminal and haj flight schedule. The results of the interview with AMC Syamsudin Noor in this case the AMC unit will allocate parking stands during Hajj flights because the capacity of parking stands at Syamsudin Noor Airport will decrease due to

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				hajj planes using two parking stands. During the hajj flights, the operation of Syamsudin Noor Airport in Banjarmasin became 24 hours, in handling hajj flights the AMC unit became the workload of the AMC unit, namely changing the airport operating hours from 05.00 WITA to 23.00 WITA /last flight to 24 hours with the number of AMC unit personnel only 3 people per shift either on regular flights or during Hajj charter flights.
2	Dhimas	The Role of Apron Movement Control (AMC) Officers in Oversight of Aviation Activities to Support the Safety of the Air Side of the Tunggul Wulung Cilacap Airport.	2021	The results of this study indicate that the role of AMC unit officers has complied with the Minister of Transportation Regulation No. PM 36 of 2017 concerning position maps within the technical implementation unit of the Directorate General of Civil Aviation, Ministry of Transportation. Then for the training aircraft parking stand, the AMC unit officers overcome this by going directly to the field to arrange the parking of the training aircraft so that the distance between the aircraft and one another or with obstacles does not intersect. Thus, safety at the airport at Tunggul Wulung Cilacap Airport is very good.
3	Besse Novariani Amri	The role of the Apron Movement Control (AMC) unit in ensuring flight safety at Sultan Hasanuddin Makassar International Airport	2022	The results of this study can be concluded that in an effort to ensure safety on the air side of Sultan Hasanuddin International Airport Makassar, the AMC Unit carries out its duties and responsibilities by carrying out strict supervision of operational activities on the air side. The supervision is supervising all traffic movements on the air side, officers working on the air side, personnel vehicles, passenger movements, maintaining cleanliness in the Apron area and coordinating with ATC and GH regarding aircraft handling.

## RESEARCH METHODS Research Design

This study uses a qualitative approach, a type of research whose findings are not obtained through statistical procedures or other forms of calculation. The approach used in this study is a qualitative approach in the form of a case study. The object of research is matters relating to the Monitoring Analysis of the Apron Movement Control (AMC) Unit on Maneuvering Buses in the Airside Area During Hajj Flights at Adi Soemarmo Boyolali Airport. Research design is used as a guide or procedure that is useful as a guide for developing strategies that produce research methods. According to Sugiyono (2018) states that "Research design must be specific, clear and detailed, determined steadily from the start, to be a guide step by step".

#### Time and Place of Research

Place of research at PT. Angkasa Pura I Adi Soemarmo International Airport, Boyolali which is located at Tanjungsari, Ngesrep, Ngemplak District, Boyolali Regency, Central Java (57108). This research lasted for 2 months, from 1 June to 31 July 2022.



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#### **Research Data Sources**

According to Lofland in AT Santoso, 2014, data sources in qualitative research are words and actions obtained from informants through interviews, the rest is additional data such as written and recorded documents. The data used in this study uses two types of data sources, namely as follows:

- 1. Primary data sources, namely data directly collected by researchers from the first source. As for the primary data sources in this study are Airlines Service Supervisors, Apron Movement Controllers, Aviobridge operators. At Adi Soemarmo Boyolali Airport. According to Sugiyono (2018) Primary data is data sources that directly provide data to data collectors. Data is collected by the researchers themselves directly from the first source or where the object of research is carried out. Researchers used the results of interviews obtained from informants regarding the research topic as primary data.
- 2. Secondary data sources, namely data obtained from literature studies and documents related to the main research topics as support from the first source. According to Sugiyono (2018) secondary data is data sources that do not directly provide data to data collectors, for example through other people or through documents.

#### Method of collecting data

To obtain the desired data according to the problems in this thesis, the researchers used the following method:

- 1. Observation. One technique that can be used to find out or investigate non-verbal behavior is by using observation techniques. According to Sugiyono (2018) observation is a data collection technique that has specific characteristics when compared to other techniques. Observation is also not limited to people, but also other natural objects. Through observation activities researchers can learn about behavior and the meaning of this behavior. Observations in this study are by making direct observations in the field.
- 2. Interview. interview according to Sugiyono (2018) is a conversation with a specific purpose that is carried out by a party, namely the interviewer (interviewer) who asks questions and the interviewer (interviewer) to provide answers to the questions given. An interview is a meeting of two people to exchange information and ideas through question and answer, so that meaning can be constructed in a particular topic (Sugiyono 2018). So, the interview is a data collection method that is carried out by a question and answer process by the interviewer to the informant or the person being interviewed. Interviews were conducted to find out more in-depth things about a problem. In this study, the authors used structured interviews. According to Sugiyono (2018) structured interviews were used as a data collection technique if the authors of the data collectors also knew what information would be obtained during this interview. The interview that will be conducted by the researcher is with one Airlines Service Supervisor officer, two Apron Movement Controller officers.
- 3. Documentation. According to Sugiyono (2018). Documentation is a record of an event which can be in the form of writing, pictures, or works in the form of writing, history, stories, biographies, regulations, and policies. Documentation techniques are complementary to the use of observation and interview methods in qualitative research. The author performs documentation techniques in the form of photos, magazine sources, laws, regulations.

## RESEARCH RESULTS AND DISCUSSION Research Result

Supervision of the Apron Movement Control (AMC) unit on the maneuvering of buses in the airside area during hajj flights at Adi Soemarmo Boyolali Airport, is a duty and responsibility



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that must be carried out by Apron Movement Control (AMC) officers starting from the hajj bus arriving at the airport until by plane taking off. In carrying out this supervision, Apron Movement Control (AMC) officers are assisted by the airline so that supervision can be carried out optimally, due to the large number of Hajj passengers with limited Apron Movement Control (AMC) officers, so that the airline provides assistance in supervision so that Hajj passengers can walk regularly during boarding time.

Supervision is carried out starting from buses and haj passengers to provide flight security and safety during operations, so that buses and passengers can run regularly and on time. Supervision is carried out starting from the time the bus arrives at the airport at the specified time, after checking by Avsec (sceering), then the Apron Movement Control (AMC) provides directions using a "follow me car" vehicle to make it easier for officers to guide the hajj bus when carry out movements in the airport area, especially the airside area. In addition, officers are also required to use Personal Protective Equipment (PPE) in supervising buses and hajj passengers, and use handy talky communication devices or what is often called HT communication tools for outdoors. Then the officer gives directions/guidance to the haj bus to position the bus in the area determined by the officer around the departing aircraft, so that haj passengers can easily receive directions from the airline to go to the airplane during boarding time. When the hajj passengers get off the bus to enter the plane or vice versa, that's when the ground time begins because the hajj passengers are not like the usual passengers who wait in the waiting room. This is what makes ground handling officers or the airline participate in helping arrange the departure of passengers in the airside area.

The ground handling party is the party that regulates the process of passengers going to the plane, so that operations can operate according to the predetermined ground time, which is 90 minutes. Then for the Apron Movement Control (AMC) to make arrangements related to buses operating in the airside area and ensure that passengers do not commit violations such as smoking or throwing garbage carelessly which can result in Foreign Object Debris (FOD) which is a material or object that is dangerous in the airside area. Then supervise passengers so as not to approach the area near the aircraft engine which is a dangerous area if it is too close, and monitor every movement of passengers in the airside area. In addition, Apron Movement Control (AMC) officers are also responsible for unfavorable weather, such as when it rains, officers must provide umbrellas and raincoats as Personal Protective Equipment (PPE) to get to the plane for passengers to stay safe. or in another way, by positioning the bus closer to the GSE stairs.

The movement or maneuvering of buses in the airside area during hajj flights at Adi Soemarmo Boyolali Airport, namely the activities of passengers, officers, and Ground Support Equipment (GSE) for preparing for the pilgrimage every year, therefore officers must carry out escorts and guide the buses that will enter the airport

#### **Discussion**

Supervision of the Apron Movement Control (AMC) unit for bus maneuvering in the airside area during Hajj flights at Adi Soemarmo Boyolali Airport?

In accordance with the theory of Sarwoto (2010), which is related to supervision which is an attempt so that a work can be carried out in accordance with a predetermined plan, and with supervision it can reduce obstacles, while obstacles that have occurred can be immediately known which can then be corrected. In addition, this supervision has two types of supervision, namely direct supervision and indirect supervision. Supervision of the Apron Movement Control (AMC) unit for bus maneuvering in the airside area during Hajj flights at Adi Soemarmo



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Boyolali Airport is carried out directly, because Apron Movement Control (AMC) officers are assisted by ground handling officers or the airline carries out supervision by going directly to field, to regulate and supervise the movement of buses and passengers/pilgrims in the airside area.

This supervision is carried out so that operations can run smoothly, in accordance with this theory, supervision is also carried out to minimize obstacles, namely passenger irregularities in the airside area. This irregularity becomes an obstacle for the airport due to the lack of knowledge of the passengers regarding the regulations that apply to the airside area, so that passengers carry out their usual activities in public places in general, while the airside area itself has provisions that are applied to minimize the occurrence of accidents.

Supervision is carried out starting from buses and haj passengers to provide flight security and safety during operations, so that buses and passengers can run regularly and on time. Supervision is carried out starting from the bus arriving at the airport on the specified time, after checking by avsec (sceering), then the Apron Movement Control (AMC) provides directions using a "follow me car" vehicle to make it easier for officers to guide the hajj bus when carry out movements in the airport area, especially the airside area. In addition, officers are also required to use Personal Protective Equipment (PPE) in supervising buses and hajj passengers, and use handy talky communication devices or what is often called HT communication tools for outdoors. Then the officer gives directions/guidance to the hajj bus to position the bus in the area that has been determined by the officer around the aircraft that will be departing, so that haj passengers can easily receive directions from the airline to go to the airplane during boarding time. When the hajj passengers get off the bus to enter the plane or vice versa, that's when the ground time starts because the haj passengers are not like the usual passengers who wait in the waiting room. This is what makes ground handling officers or the airline participate in helping arrange the departure of passengers in the airside area.

The ground handling party is the party that regulates the process of passengers going to the plane, so that operations can operate according to the predetermined ground time, which is 90 minutes. Then for the Apron Movement Control (AMC) to make arrangements related to buses operating in the airside area and ensure that passengers do not commit violations such as smoking or throwing garbage carelessly which can result in Foreign Object Debris (FOD) which is a material or object that is dangerous in the airside area. Then supervise passengers so as not to approach the area near the aircraft engine which is a dangerous area if it is too close, and monitor every movement of passengers in the airside area. In addition, the Apron Movement Control (AMC) officer is also responsible for unfavorable weather, such as when it rains the officer must provide umbrella and raincoat facilities as Personal Protective Equipment (PPE) to get to the plane for passengers to stay in a safe condition, or in another way, namely by positioning the bus closer to the gabarata.

Meanwhile, according to previous research entitled "The Role of the Apron Movement Control (AMC) Unit in Ensuring Aviation Safety at Sultan Hasanuddin International Airport Makassar" by Besse Novariani Amri in 2022, the results are efforts to ensure safety on the air side of Sultan Hasanuddin International Airport Makassar, the Apron Movement Control (AMC) Unit to carry out its duties and responsibilities is to strictly supervise operational activities on the air side. The supervision is supervision of all traffic movements on the air side, officers working on the air side, personnel vehicles, passenger movements, maintaining cleanliness in the apron area and coordinating with Air Traffic Control (ATC) and Ground Handling (GH) related to aircraft handling. The work system of the Apron Movement Control (AMC) unit at Sultan Hasanuddin International Airport Makassar is by using a shift system, namely the



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morning shift, afternoon shift and night shift. Then the supporting equipment for the Apron Movement Control (AMC) unit as a whole, namely Follow Me Car, VHF Radio, HT, PABX, Ear muff, Binoculars, Computers, Printers. For personnel support equipment in the field, it is enough just to use the Follow Me Car and HT.

In previous research, the use of follow me car and HT was used when conducting field surveillance. Whereas in this study follow me car, HT and coupled with Personal Protective Equipment (PPE) are used to carry out supervision during the implementation of Hajj embarkation. This research gives the result that the follow me car is a ground support equipment (GSE) which functions to carry out surveillance in the airside area and provide instructions to other vehicles that will enter the airside area so that they comply with Standard Operation Procedures (SOP) and are still supervised by Apron Movement Control officers. (AMC) when operating in the airside area.

# Movement or maneuvering of buses in the airside area during Hajj flights at Adi Soemarmo Boyolali Airport

It is the duty and responsibility of the Apron Movement Control (AMC) officer according to the Regulation of the Director General of Civil Aviation Number: KP 326 of 2019 concerning Technical and Operational Standards for Civil Aviation Safety Regulations, in this case the Apron Movement Control (AMC) unit has the task of coaching personnel equipment/vehicles and aircraft on the apron. Then the movement or maneuvering of buses in the airside area is regulated and supervised by Apron Movement Control (AMC) officers starting from the arrival of the bus at the airport until the passengers get off the bus to the airplane and vice versa. This is done so that movement or maneuvering in the airside area can run safely and in an orderly manner, by means of officers providing guidance/coaching to buses that will go to the airside area. Then to ensure cleanliness on the apron, Apron Movement Control (AMC) officers must ensure that Hajj passengers who get off the bus or from the airplane must ensure that they do not litter or smoke in the airside area and throw away the rest of their cigarettes carelessly. because this can cause Foreign Object Debris. (FOD) in the airside area which could endanger aircraft operations. The movement or maneuvering of buses in the airside area during haji flights at Adi Soemarmo Boyolali Airport, namely the activities of passengers, officers, and Ground Support Equipment (GSE) for preparing for the pilgrimage every year, therefore officers must carry out escorts and guide the buses that will entering the airport, especially the airside area. In accordance with the Standard Operation Procedure (SOP), the movement or maneuvering of the Hajj bus will be carried out starting from the bus entering the airport area, when the schedule information from the airline has been given and Avsec has screened the passengers, so the passengers are sterile.

Then the Apron Movement Control (AMC) officer will prepare all equipment, tools, and other supporting facilities to make arrangements for the Hajj bus. Starting from the information on the arrival of the bus at the airport, Apron Movement Control (AMC) officers will pick up and escort the Hajj bus to enter the airside area by using a "follow me car" vehicle. This vehicle is used to provide instructions/guide to Hajj buses to enter the airport area, especially the airside in accordance with the Standard Operational Procedure (SOP), so that buses can operate in the airside area regularly and to avoid flight accidents in the airside area. Then the Apron Movement Control (AMC) officer will provide directions or guidance to the bus to position the bus in the area around the plane that will be departing the pilgrimage, so that passengers can enter the plane on time according to the specified ground time. Before the bus drops off the Hajj passengers, the bus will start by unloading the luggage so that it can be loaded first with the



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loading/unloading process. Then passengers are dropped off, which in general the number of buses that will depart hajj passengers is 8 buses, so to facilitate supervision when the bus will drop off/pick up passengers and luggage it is arranged by sorting bus numbers 1 - 4 and continuing with bus numbers 5 - 8. Buses 1 - 4 take turns dropping/picking up luggage and passengers, then when finished, the bus will be guided to go to road access and continue with buses 5 - 8 to drop off/pick up luggage and passengers until it's finished, then Apron Movement officers Control (AMC) will provide guidance again to guide the bus towards road access and all buses gather at the road access to wait for the plane to take off to ensure all passengers can make their pilgrimage or vice versa. Meanwhile, arrangements for passengers to go to the airplane or vice versa according to the ticket or manifest are carried out by ground handling officers or the airline, to ensure that the hajj passengers are in accordance with the existing data. This is done so that Hajj embarkation operations can run smoothly and according to ground time, as well as to avoid operational obstacles at the airport, where the area is a parking stand for aircraft after landing.

#### **Obstacles faced by Apron Movement Control (AMC) officers**

Regarding the weather and the lack of knowledge of passengers at Adi Soemarmo Boyolali airport, especially the airside area, therefore the officers assisted by the airline will supervise it more optimally. In an interview with the Apron Movement Control (AMC) officer regarding the obstacle due to the weather, namely, "Well, if it's raining, we stick the bus close to the plane's steps, if it's light rain, we use an umbrella" was the answer from Mr. Rifki. Then the answer from Mr. Dimas "Yes, that was earlier, by closing the bus with a ladder or using an umbrella/raincoat". From the two interviewees the researchers interviewed said that the constraints of the Apron Movement Control (AMC) monitoring process on bus movements during the Hajj flight implementation.

Then according to previous research entitled "A Comparative Analysis of the Average Use of Parking Stands on Hajj Flights in 2017 and 2018 at Adi Soemarmo Airport" by Nonny Kirana Tiekamaris, this research shows the results of obstacles during Hajj embarkation, namely not a few pilgrims carrying goods luggage that cannot be carried and can be dangerous during flight, and in the airside area, such as a bus that wants to turn around or to park, disrupting the path of an airplane taxiway to the parking stand. The results of the previous research are research that is relevant to this research, because it becomes an obstacle for Apron Movement Control (AMC) officers during the implementation of the Hajj firing, namely the lack of knowledge of pilgrims regarding the Standard Operation Procedure (SOP) in the airport area. This was also found by the Apron Movement Control (AMC) officers who were the informants in this study, namely the obstacles during the implementation of the Hajj embarkation, namely the lack of knowledge of pilgrims such as smoking in the airside area, littering, even pilgrims who had urinated anywhere near the airside area. . So supervision in the airside area becomes the duty and responsibility of Apron Movement Control (AMC) officers, one of which is supervision of planes, buses and hajj passengers when they are about to carry out the departure of the plane. Supervision, in this case, Apron Movement Control (AMC) officers supervise all movement activities of buses, planes, and passengers in the airside area to maintain flight security and safety when boarding. In this supervision, officers are assisted by the airline or ground handling so that supervision can run regularly and optimally. In addition to supervising buses, planes and passengers, Apron Movement Control (AMC) officers also manage the movement of buses, planes and passengers from heading to the airside area to the airside area. This movement is carried out by providing guidance to the bus to go to the airside area, using a follow me car



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vehicle. then regulate the movement of passengers when getting off/on the bus, so they don't approach dangerous areas such as approaching aircraft engines. Then the obstacles that occur in the airside area when the Hajj departure operation takes place are related to the weather and the lack of knowledge of passengers regarding the rules or Standard Operation Procedure (SOP) in the airside area, so officers must be more careful in supervising the movement of buses and passengers.

#### **CONCLUSION**

Supervision of the Apron Movement Control (AMC) unit for bus maneuvering in the airside area during Hajj flights at Adi Soemarmo Boyolali Airport, carried out by Apron Movement Control (AMC) officers and assisted by the airline or ground handling when boarding. This supervision is carried out on buses and passengers who will make pilgrimage flights, so that operations can run smoothly and regularly. In this case the officer oversees the movement of the bus when it enters the airside area so that the position of the bus is in accordance with the specified standard, so that the officer provides guidance to the bus when entering the airside area. Then officers also supervise passengers who get on/off the bus, so they don't approach dangerous areas in the Airside area to avoid flight accidents. The movement or maneuvering of buses in the airside area during Hajj flights at Adi Soemarmo Boyolali Airport, is carried out starting from the bus has been screened by AVSEC officers and is sterile, Apron Movement Control (AMC) officers will guide the bus to the airside area using a follow me car vehicle. The movement of the bus to the airside area is guided by Apron Movement Control (AMC) officers through predetermined roads starting from the shooting, passing through the PKP-PK access, then heading to the cargo post, and waiting for information from the airline regarding the completion of the loading/unloading process, then the bus is directed to go to the airside area and park the bus near the plane that will depart for the pilgrimage. Then coordinate with the greeting officer to arrange the movement of passengers getting off/on the bus. Obstacles in the supervision of the Apron Movement Control (AMC) unit on bus maneuvering in the airside area during Hajj flights at Adi Soemarmo Boyolali Airport are related to weather factors and the lack of knowledge of passengers about the rules in the

From this study, the authors would like to convey suggestions related to research with the title: "Analysis of Supervision of the Apron Movement Control (AMC) Unit for Maneuvering Buses in the Airside Area During Hajj Flights at Adi Soemarmo Airport, Boyolali" for companies and practitioners, namely related to the constraints that occurs in the field when the Hajj embarkation operation takes place, companies and practitioners provide education or general insight regarding the rules of conduct at the airport prior to departure. This is possible to minimize officers in carrying out supervision, because passengers have received previous education. This education can be provided through the greeting officer or the party directly concerned with the passenger. There needs to be a monitoring process for the Apron Movement Control (AMC) unit, such as the condition of maneuvering buses in the airside area during Haji flights at Adi Soemarmo Boyolali Airport, so that operations can run smoothly and regularly. Then officers also need to supervise passengers so they don't approach dangerous areas such as the airside area to avoid flight accidents. When moving or maneuvering a bus in the airside area during a hajj flight at Adi Soemarmo Boyolali airport, AMC officers should guide the bus to the airside area through a predetermined route so that the haj bus movement in the airside area is not messy and does not interfere with other flights. At the time there were obstacles in the supervision of the Apron Movement Control (AMC) unit, such as the weather factor and the



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passengers' lack of knowledge of the rules in the airside area. It is better for AMC officers to coordinate with BMKG officers to anticipate unfavorable weather, and officers should provide input to pilgrims when they are at the Hajj Embarkation before departure to Adi Soemarmo Boyolali Airport.

#### **DAFTAR PUSTAKA**

- A Muri Yusuf. 2017. Metode Penelitian: Kuantitatif, Kualitatif, Dan Penelitian Gabungan. Jakarta: Kencana.
- Arisputranto, L. (2011). Pengembangan Terminal Dan Runway Bandar Udara Internasional. Tjilik Riwut Di Palangkaraya (Doctoral dissertation, UAJY).
- Bandar udara Menurut PP RI NO 70 Tahun 2001 Tentang Kebandarudaraan Pasal1 Ayat 1,
- Dayu, D. P. (2020). Analisis Faktor-Faktor Penyebab Terjadinya Keterlambatan Waktu Keberangkatan Pesawat Di Bandara Internasional Hang Nadim Batam. Skripsi.
- DPMPTSP (Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu Provinsi Jawa Tengah) Tentang Bandara Internasional Adi Soemarmo Solo (SOC).
- Indonesia, P. R. (2015). Undang-Undang Republik Indonesia Nomor 11 Tahun 2008 Tentang Informasi Dan Transaksi Elektronik. Lembaran Negara Republik Indonesia Tahun.
- Kristanto, V. H. (2018). Metodologi Penelitian Pedoman Penulisan Karya Tulis Ilmiah:(KTI). Deepublish. Yogyakarta.
- Lingkungan Keluarga terhadap Minat Berwirausaha Mahasiswa Manajemen Fakultas Ekonomi Universitas Tadulako. Jurnal Ilmu Manajemen Universitas Tadulako (JIMUT), 3(3), 299-308.
- Menteri Agama Republik Indonesia Nomor 25 Tahun 2015 tentang penyediaan transportasi udara bagi jamaah haji regular
- Pasal 58 dan Pasal Pasal 185 b, perlu ditetapkan Pasal 185 b Undang-Undang Penciptaan Lapangan Kerja Nomor 2020 Tahun 1I, Keputusan tentang Penyelenggaraan Bidang Penerbangan.
- Peraturan Direktur Jendral Perhubungan Udara Nomor : KP 326 Tahun 2019 yangditerbitkan pada tanggal 12 Desember 2019 tentang Standar Teknis dan Operasional Peraturan Keselamatan Penerbangan Sipil-Bagian 139 (ManualOf Standard CASR- Part 139) Volume I Bandar Udara (Aerodrome) di BAB9 point 9.6.8
- Peraturan Menteri Perhubungan Republik Indonesia Nomor: PM 77 Tahun 2015 yang diterbitkan pada tanggal 30 April Tahun 2015 tentang Standarisasi dan Sertifikasi Fasilitas Bandar Udara
- Raharjo, R., & WP, S. N. (2017). Analisis Kesesuaian Penerapan Safety Management System pada PT Angkasa Pura I Kantor Cabang Bandar Udara Adi Sumarmo dengan Standar Pkps 139 (Doc 9859 Icao). Industrial Engineering Online Journal, 6(1).
- Santosa, A. B. (2020). Studi literatur media pembelajaran flash card dapat meningkatkan hasil belajar pada mata pelajaran perekayasaan sistem radio dan televisi. Jurnal Pendidikan Teknik Elektro, 9(3).
- Santosa, S. A. (2020). Pengaruh Beban Kerja Petugas Avsec Dalam Melaksanakan Tugas Keamanan Dan Pelayanan Terhadap Kenyamanan Penumpang Di Centralize Bandar Udara Sultan Aji Muhammad Sulaiman Sepinggan Balikpapan. Surabaya: Politeknik Penerbangan Surabaya.
- Sarwoto. 2010. Dasar-Dasar Organisasi dan Manajemen. Jakarta: Ghalia Indonesia
- Satriadi. 2016. Pengaruh Pengawasan Kepala Sekolah Terhadap Kinerja Guru PadaSD Negeri Binaan Tanjung Pinang. Jurnal Manajemen Sekolah Tinggi IlmuEkonomi Tanjung Pinang.



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(290). P 288-295

Sugeng, P., Ajrieh, S., & Darmawan, A. (2015). Liquid radioactive waste characterization for evaporation process.

Sugiyono (2018). Metode Penelitian Kombinasi (Mix Methods). Bandung: Alfabeta.

Sugiyono. (2018). Metode Penelitian Kombinasi (Mixed Methods). Bandung: CV Alfabeta.

Sugiyono. (2018). Metode Penelitian Kuantitatif, Kualitatif, R & D. Bandung: CVAlfabeta.

Sugiyono. (2018). Metode Penelitian Kuantitatif. Bandung: Alfabeta.

Sugiyono. 2018. Metode Penelitian Kuantitatif Kualitatif dan R & D. Penerbit CV. Alfabeta. Bandung.

Sugiyono. 2018. Metode Penelitian Kuantitatif, Kualitatig, dan R&D, penerbit Alfabeta, Bandung Tabaru, M. Y., Rumapea, P., & Tampongangoy, D. (2016). Fungsi Pengawasan Terhadap Keselamatan Penerbangan Bandara Udara (Studi Di Bandara Udara Kuabang Kao. Kab. Halmahera Utara). Jurnal Administrasi Publik, 3(038).

Undang-undang No 15 tahun 1992 tentang penerbangan dan PP No. 70 tahun 2001tentang kebandarudaraan Bandar Udara

Wiguna, D. P. (2019). TA: Perancangan Buku Ilustrasi Digital Vektor sebagai Media Kampanye Sosial "Ayo Naik Transportasi Umum" untuk Anak Usia 12-16 Tahun (Doctoral dissertation, Institut Bisnis dan Informatika Stikom Surabaya)