

Use Of CCTV To Improve AMC Unit Supervision Management At Kualanamu International Airport

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ABSTRACT

CCTV is essential for maintaining security and increasing operational efficiency. This research helps evaluate the use of CCTV in improving monitoring management of the Apron Movement Control (AMC) unit on the air side of Kualanamu International Airport. AMC is responsible for managing the movement of aircraft, vehicles and personnel on the apron. With the increasing complexity and volume of air traffic, adequate surveillance systems have become increasingly important. The method used in this research is descriptive qualitative. The research results show that the use of CCTV provides various benefits, especially for AMC officers on the air side of Kualanamu International Airport. Utilization of CCTV can increase security, operational efficiency and safety.

Keyword : CCTV; Apron; Movement Control; Surveillance

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1. INTRODUCTION

The definition of a CCTV camera, the abbreviation for Closed Circuit Television, is a digital video camera that is used to monitor and send video signals to a room, which is then transmitted to a monitor screen (Utama, 2021). The function of a CCTV camera is to monitor conditions in a place that is usually related to security or crime so that if something threatens security, it will be recorded on the camera, which will later be used as evidence.

Apron Movement Control (AMC) is a work unit that carries out the necessary arrangements and supervision to prevent accidents between aircraft, vehicles, personnel and goods and regulate traffic so that it can run smoothly in the apron area (Pontoh et al., 2019). The large number of aviation activities at Kualanamu International Airport means that activities in the airside area, especially the apron, make-up / break down area and equipment parking area, require adequate security and safety supervision. According to PM 38 of 2015 concerning Service Standards for Domestic Air Transport Passengers at Airports, which enters the type of security service with the benchmark that the security facilities are adequate and function to prevent crime with the presence of CCTV with a minimum recording data storage duration of 30 days (Minister of Transportation of the Republic of Indonesia, 2018).

2. METHOD

This research uses descriptive qualitative methods. Data collection in this research used a literature study, namely a data collection method, by understanding and studying theories from various literature related to research (Fadli, 2021). Data collection was carried out by searching various relevant sources such as books and scientific works and carrying out observations. Observation has become a form of scientific method. The emergence of observation as a scientific method certainly adds to the variety of data collection methods (Hashanah, 2017). Then, the data that has been collected and studied will be presented descriptively.

3. DISCUSSION

Kualanamu International Airport has a lot of daily movement; this movement must be adequately monitored. Based on the results of observations and observations during the author's implementation of On The Job Training (OJT), supervision of all activities in the apron, make up / break down area and equipment parking area were not monitored as a whole due to several places that were not visible to

the AMC unit from the Work Room. AMC Units. This is dangerous for operational activities on the air side because it can create *hazards* and trigger accidents or incidents.

Several violations occurred in the airside area (*apron, make up/break down area and equipment parking area*) that were encountered when the author carried out the OJT:

1. The ground handling personnel were carrying out the process of unloading goods on the apron. However, there was a violation of the order by the ground handling personnel due to their unawareness in the process of unloading the goods, which exceeded the specified capacity of the Baggage Towing Tractor. The violation occurred outside the supervision of the AMC room. This can happen because ground handling personnel feel that all activities carried out on the air side are not supervised by AMC officers, so ground handling personnel commit violations on the air side.
2. A foreign object entered the airside area in violation of order because the AMC Unit Work Room could not clearly see the activities and events taking place there, especially in the apron area, make-up/break-down area, and equipment parking area, and because several obstructions obstruct the view of AMC personnel from the AMC Unit Work Room.
3. Ground handling officers violated the order by placing Ground Support Equipment (GSE) inappropriately. GSE equipment should be placed in *the Equipment Parking Area* when it is not being used.

Through several cases of violations that occurred, this research found that the implementation of CCTV in the airside area of Kualanamu Airport provides various significant benefits. Key benefits include increased perimeter security, effective operational oversight, efficient air traffic management, and improved occupational safety and health. CCTV has also proven instrumental in detecting and responding to security threats, documenting incidents for further analysis, and ensuring safety and health protocol compliance.

The presence of a CCTV system can significantly help the duties of the AMC at the airport. The following are some of the benefits of CCTV to increase the efficiency and effectiveness of AMC duties:

1. Operational Supervision
 - a. Monitoring Apron activities
CCTV allows AMC officials to monitor all activities on the apron. This ensures that all activities run safely and according to procedures.
 - b. Coordination and communication
Officers can more easily coordinate and communicate with related parties, such as ground handling officers, through direct visuals from CCTV.
2. Security and Safety
 - a. Threat Detection
CCTV helps detect security threats, such as unauthorized people in the apron area or suspicious behaviour in the air. It can enable a quick response to prevent incidents immediately.
 - b. Safety and Security Protocol Compliance
AMC officers can ensure that all airside personnel comply with safety and security protocols. This makes it easier for them to see whether activities are in accordance with applicable SOPs.
3. Movement management
With real-time monitoring, AMC officers can manage and optimize the movement of aircraft and vehicles on the apron, reducing the risk of collisions and increasing flight operational efficiency.
4. Documentation and Reporting
 - a. Incident Records
CCTV provides visual evidence of incidents that may have occurred on the apron, which can be used for further investigation and reporting to the appropriate authorities.

b. Audit and Evaluation

CCTV recording data can be used in conducting operational audits and performance evaluations, helping identify areas needing improvement.

The use of CCTV helps AMC carry out its duties of monitoring and ensuring safe and smooth flight operations. The task of Apron Movement Control (AMC) itself will be maximized if it is supported by security facilities in the form of CCTV. AMC officers can use CCTV to help monitor all movements at the airport, especially on the air side because it is the most crucial place in flight operations. So it is evident that CCTV supports AMC's airport duties, increasing security, efficiency and operational safety, especially on the air side.

4. CONCLUSION

Utilization of CCTV on the air side can help improve AMC unit surveillance management, which ultimately supports safer and more efficient airport operations. Recommendations for further development include upgrading CCTV technology with intelligent video analytics and ongoing staff training to maximize the benefits of these systems. Installing CCTV on the air side can help the AMC monitor all activities on the air side and areas that cannot be reached before CCTV is installed. With CCTV, AMC personnel can supervise ground handling personnel to carry out all airside activities based on applicable SOPs. Apart from that, it is hoped that the CCTV installation can improve the air safety aspect at Kualanamu International Airport.

Provide a statement that what is expected, as stated in the "Introduction" chapter can ultimately result in "Results and Discussion" chapter, so there is compatibility. Moreover, it can also be added the prospect of the development of research results and application prospects of further studies into the next (based on result and discussion).

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