

# *Procurement Of Isolated Parking Area For Supporting Flight Safety In Hang Nadim Batam International Airport*

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**Abstract**— Flight is one unit that can not stand alone. Flight consists of the utilization of airspace, aircraft, airports, air transportation, flight navigation, safety, environmental safety, and other facilities. Hang Nadim International Airport does not yet have supporting facilities to enhance flight safety, namely an isolated aircraft parking area. This place is used to accommodate aircraft that are in a certain condition that can endanger the aircraft itself, other aircraft, and the surrounding environment. Every airport authority is obliged to provide an isolated place for the placement of aircraft that experience disturbances or security threats.

**Keywords**— Security Threats, Isolated Aircraft Parking Area, Flight

## I. INTRODUCTION

Every Airport Business Entity and Airport Operating Unit is REQUIRED to provide or designate a portion of the airport area as an Isolated Parking Area for the placement of aircraft that experience disturbances or security threats [1]. The isolated parking area is a specific area at the airport designated for parking aircraft that are in abnormal conditions and located far away from other aircraft parking locations and essential airport facilities [2]. The function of the isolated parking area is for the placement or parking of an aircraft that has experienced unlawful interference, such as hijacking, bomb threats, etc. [3].

The positioning of parking for aircraft that experience unlawful interference should be at a maximum distance that is still feasible and not less than 100 meters from other aircraft parking positions, buildings, public areas, and similar locations. It must be ensured that this position is not located above underground utilities such as gas or aviation fuel and is as far as possible from power or communication cable facilities [4]. Acts of Unlawful Interference refer to actions or attempts that endanger flight and air transportation safety, including:

- a. Illegally hijack an aircraft that is in flight or on the ground;
- b. Hostage-taking of individuals inside an aircraft or at an airport;
- c. Illegally entering an aircraft, Restricted Security Area, or aeronautical facility area;
- d. Carrying weapons, dangerous goods, or bombs into an aircraft or airport without permission;
- e. Providing false information that endangers flight safety;

- f. Using an aircraft for actions that cause the death or injury of a person, damage to property, or harm to the environment; and
- g. Committing acts of sabotage/destruction of an aircraft [5].

An aircraft known or suspected to be subject to unlawful interference or requiring isolation from normal activities at the aerodrome must be allowed to proceed to the designated isolated parking position, or if the designated position is unavailable, the aircraft should be allowed to proceed to a selected area or location with prior agreement with the airport authorities. The taxi clearance should specify the taxi route to be followed to the parking position. This route should be chosen considering the minimization of security risks to the public, other aircraft, and installations at the aerodrome [6].

Hang Nadim International Airport currently does not have the necessary facilities to support aircraft services, specifically the isolated aircraft parking area. In 2019, the isolated aircraft parking area at Hang Nadim International Airport was situated on extended taxiway delta. However, upon further evaluation, it was deemed unsafe to designate the extended taxiway delta as the isolated parking area due to the frequent use of taxiway delta by taxiing aircraft to and from runway 04. This non-compliance with the standards set by ICAO Annex 14, paragraph 3.14.2, led to the conclusion. Recommendation: The isolated aircraft parking position should be located at the maximum distance possible and never less than 100 meters from other parking positions, buildings, public areas, etc. Particular care should be taken to avoid placing the position over underground utilities such as gas and aviation fuel and, wherever feasible, electrical or communication cables.

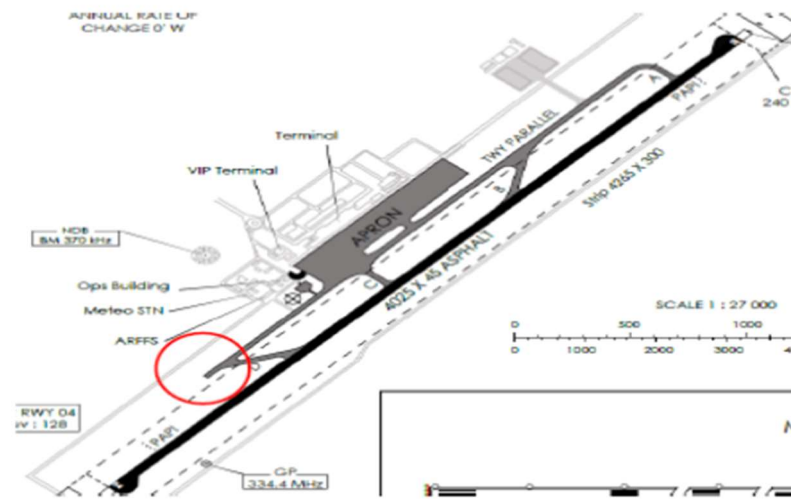


Figure 1. The location of the extended delta, which used to serve as the isolated parking area.

Then in 2020, the placement of the isolated aircraft parking area, which was originally located on extended taxiway delta, was removed due to the extension of taxiway foxtrot (parallel taxiway) towards taxiway echo (beginning of runway 04). Until now, there is still no isolated aircraft parking area at Hang Nadim International Airport in Batam, as stipulated in Pasal 338 of UU No. 1 tahun 2009 concerning Aviation. It states that "Every Airport Business Entity and Airport Operating Unit is required to provide or designate a portion of the airport area as an Isolated Parking Area for the placement of aircraft that experience disturbances or security threats."

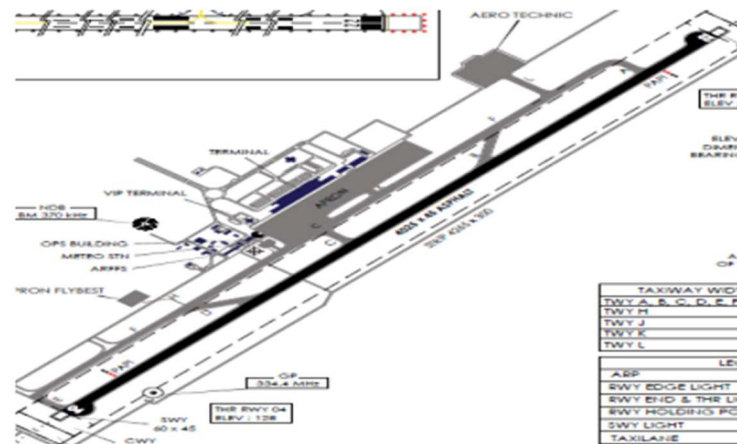


Figure 2. The extended delta, which used to serve as the isolated parking area, is now extended to become part of the taxiway foxtrot leading to taxiway echo (beginning of runway 04). [7].

## II. RESEARCH METHOD

Qualitative research is a research method based on the post-positivism philosophy and is used to study the natural state of an object (in contrast to experiments), where the researcher acts as a key instrument. Data collection techniques are conducted through triangulation (combination). Data analysis is inductive/qualitative, and the results of qualitative research emphasize importance over generalization [8].

## III. ANALYSIS AND DISCUSSION

Hang Nadim International Airport does not yet have a dedicated apron for isolated aircraft. An apron should be provided where necessary to embark and disembark passengers, cargo, or mail, as well as for aircraft servicing without disrupting airport traffic [4].

The isolated aircraft parking position should be located at the maximum distance feasible, and in any case, not less than 100 meters from other aircraft parking positions, buildings, or public areas, etc. Particular caution should be exercised to ensure that the position is not located over underground utilities such as gas and aviation fuel and is kept as far as possible from electrical or communication cables [4].

Based on the results of the conducted research, several conclusions can be drawn regarding the issue of the absence of an isolated parking area:

- The absence of the isolated parking area is due to the lack of inclusion in the Standard Operating Procedure (SOP) between Perum LPPNPI Cabang Batam and Hang Nadim Batam Airport Business Entity;
- This situation causes air traffic controllers to coordinate extensively with other units responsible for handling aircraft experiencing unlawful interference.

With such conditions, there is a need for a high level of safety and smoothness for air traffic controllers, so they can provide air traffic services prioritizing safety and security, following the established standard procedures.

## IV. CONCLUSION

To address this issue, Hang Nadim International Airport can establish a specific area for aircraft known as an isolated parking area, while still adhering to the applicable procedures and regulations as outlined in the master plan of Hang Nadim International Airport.

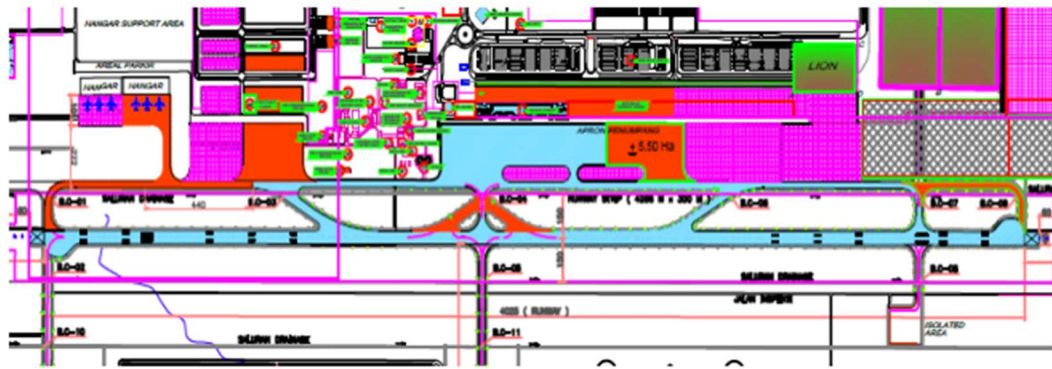


Figure 3. The placement of the isolated aircraft parking area according to the Masterplan of Hang Nadim International Airport. [9]

If the isolated aircraft parking area is built across taxiway alpha, it will not interfere with the movement of aircraft that are taxiing, landing, or taking off, whether using runway 04 or runway 22. It can also maintain the orderliness of aircraft traffic on the ground since it will not be disrupted by aircraft parked in the isolated aircraft parking area.

Socialization and discussions with relevant parties regarding the planning of the new isolated aircraft parking area at Hang Nadim International Airport are also necessary. Additionally, a review of the placement of the isolated aircraft parking area within the Standard Operating Procedure (SOP) and Letter of Coordination and Agreement (LOCA) of Perum LPPNPI Cabang Batam and Hang Nadim Batam Airport Business Entity should be conducted.

Based on the results of the research and discussions presented, the conclusion can be drawn that there is a need for a designated area for aircraft experiencing unlawful interference, and its location should be separate from other aircraft to ensure the safety and security of aviation users. By having an isolated aircraft parking area at Hang Nadim International Airport in Batam, it can support safety and security factors for aviation users.

## V. ACKNOWLEDGMENT

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