

HAZARD IDENTIFICATION AND RISK ASSESSMENT

REPORT

**Purpose:**

Assessing Risks to Perform Replacement Winglet #RH PK-LFO at sta Merauke (MKQ)

Batam Aero Technic, Safety Department

2023

**PREAMBLE**

Batam Aero Technic Safety Department is the department responsible of the development, implementation, and follow-up of the Safety Management System of Batam Aero Technic to fulfil management of change demand with the new organization structure.

BAT safety Department has set safety objective related to the main safety hazard identified and risk assessment that may affect the maintenance and continuing airworthiness management operations.

This Hazard Identification Risk Assessment purposes is to identify hazard might potentially occur and to assess risk to perform Replacement Winglet PK-LFO at sta Merauke (MKQ) refer to AMO-QSM Chapter 1.13 (Work perform at a Location other than BAT approved fixed location).

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**1. Introduction**

Hazard Identification and Risk Assessment are crucial to understand the practical threats that may exist in Batam Aero Technic organization. It is essential that these two processes are part of our organization’s Safety Management System so that the acceptable level of risk can be achieved.

It is a company policy to undertake a Risk Assessment prior to the implementation of any major changes potentially affecting the safety of operations in order to demonstrate that the changes meet an acceptable level of safety. On Risk Assessment, the possible threats will be analyzed and broken down to its root cause, and proper mitigation action to lower the risk will be applied throughout the operation of the organization. These steps are the core of the implementation of Safety Management System (SMS).

**2. Objective of Risk Management**

The objective of the Hazard Identification and Risk Assessment is to assess level of risk the company may face when some changes may be implemented.

These objectives may be separated in two sub goals:

1. To make the personnel involved during this HIRA process, aware of the consequences and their possible threats for the maintenance and operations.

2. To implement different tools in order to mitigate the risks and their potential threats.

**3. Risk Assessments Method and Limitation**

The method of this Risk Assessment is refer to Chapter 4 of BAT SMS Manual (DOC NO: BT-GEN-02). The methods are generally defined into these steps:

1. Hazard Identification for specific scope area facility at station Line Maintenance Merauke (MKQ) to perform replacement winglet #RH PK-LFO.
2. Risk Assessment for each specific possible threat with reference to the SMS Manual hierarchy system.

3. Defining the proper risk mitigation action plan for each issue so that the acceptable level of safety can be achieved.

4. Implementation of the mitigation action to all respective units concerned with each specific issue.

This HIRA is restricted to perform replacement winglet #RH PK-LFO at Sta Merauke (MKQ) .

**4. Hazard Identification and Risk Assessment Summary**

**4.1 Risk Identification and Analysis**

**4.1.1 Identified Component of Hazard and Its Risk**

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| **NO** | **Hazard Identification** | **Associated Risk** | **Consequences** |
| 1. | Extreme weather conditions such as heavy rain and strong winds when replacing winglets on the apron. | * Personnel slipped * Personnel strike by lightning * Improper walk around check | Injured Personnel  Delay in TAT to prepare the aircraft |
| 2. | Need Stair ,Crane, sling and other to perform replacement Winglet (RH) PK-LFO. | * Unable to perform replacement and install winglet at the safe place. | Delay in TAT to prepare the aircraft |
| 3. | Poor handling when working with cranes and other tools | * The occurrence of handling errors and potentially damaging tools and spare parts | Material and time losses |

**4.1.2 Risk Analysis and Mitigation Action**

| **No** | **Hazard Identification** | **Associated Risk** | **Consequences** | **Pre Risk Assessment** | | | **Risk Mitigation** | **Post Risk Mitigation** | | | **PIC** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Probability** | **Severity** | **Risk Index** | **Probability** | **Severity** | **Risk Index** |
| 1. | Extreme weather conditions such as heavy rain and strong winds when replacing winglets on the apron. | * Personnel slipped * Personnel strike by lightning. | Injured Personnel  Delay in TAT to prepare the aircraft | 3 | D | 3D | Temporarily postponed until rain and high wind conditions subside. | 1 | D | 1D | Project Leader/LM |
| 2. | Need Stairs ,Crane, sling and other to perform replacement Winglet #RH PK-LFO. | Unable to perform replacement and install winglet at the safe place. | Delay in TAT to prepare the aircraft | 4 | C | 4C | 1. Provide the proper maintenance stairs to support working at the height area. 2. Ensure all personnel wear safety shoes andsafety harness, the stair is properly locked | 1 | D | 1D | Project Leader/LM  Quality Department |
| 3. | Poor handling when working with cranes and other tools | **T**he occurrence of handling errors and potentially damaging tools and spare parts | * Material and time losses | 3 | D | 3D | 1. Ensure the availability of safety briefing prior to perform replacement winglet # RH PK-LFO. 2. Proper communication all related stake holder regarding the aircraft actual arrival schedule   Proper control by supervisor during perform aircraft maintenance. | 2 | D | 2D | Project Leader/LM  Quality Department |

**5. CONCLUSION**

Based on the Hazard Identification Risk Assessment result, to perform replacement winglet #RH PK-LFO at sta Merauke (MKQ) is acceptable.

Project leader shall conduct safety briefing to the personnel involved during this HIRA process before perform replacement winglet is carrried out, therefore all personnel will be more aware of the consequences and their possible threats for the maintenance and operations.

With correct risk control and mitigation, all identified risks are managed to acceptable level. All concerned directorates are in charge of the application and periodic monitoring.

BAT Safety Department will provide continuous monitoring through the company Safety Management System.

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