

HAZARD IDENTIFICATION AND RISK ASSESSMENT

REPORT

**Purpose:**

Assessing Risks to Perform Maintenance up to A Check Aircraft Airbus A330 at station

Kualanamu (KNO).

Batam Aero Technic, Safety Department

2022

**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 for performing maintenance up to A Check Aircraft Airbus A330 at station Kualanamu (KNO) 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 refers 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 Kualanamu (KNO) to perform maintenance up to A Check Aircraft Airbus A330.
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 maintenance up to A Check Aircraft Airbus A330 at station Kualanamu (KNO).

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

**4.1 Risk Identification and Analysis**

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

|  |  |  |  |
| --- | --- | --- | --- |
| **NO** | **Hazard Identification** | **Associated Risk** | **Consequences** |
| 1. | Perform working at the height area such as: tail, upper wing, horstab,etc (unsafe condition) | Possibility of falling down while working in the such area. | Personnel Injury. |
| 2. | Perform working in or near the fuel system and hydraulic system. | Get aircraft fuel or hydralic fluid in the mouth or in the eyes. | Personnel Injury due to poison fluid (fuel or hydraulic) get in the mouth or in the eyes. |
| 3. | Bad weather such as: heavy rain, thunderstorms, and high-speed winds during performing maintenance A check at station Kualanamu (KNO). | The task job of maintenance up to including A Check was unable to be accomplished safely due to bad weather constrained. | Maintenance up to including A Check was unable to be performed in timely manner. |
| 4. | Insufficient lighting facility at station Kualanamu (KNO). | Aircraft A check will be constained due to insufficient lighting facility at station Kualanamu (KNO). | Aircraft A check maintenance was unable to be completed properly. |

**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. | Perform working at the height area such as: tail, upper wing, horstab, etc (unsafe condition) | Possibility of falling down while working in the such area | Personnel Injury | 3 | D | 3D | 1. Provide the proper maintenance stairs to support working at the height area. 2. Provide with additional equipment such as boom lift and scissor lift to support working at the heigt area.   Ensure personnel equipped with full body harness or safety sling when working at the heigth area. | 2 | D | 2D | Project Leader/LM |
| 2. | Perform working in or near the fuel system and hydraulic system. | Get aircraft fuel or hydralic fluid in the mouth or in the eyes. | Personnel Injury due to poison fluid (fuel or hydraulic) get in the mouth or in the eyes. | 3 | D | 3D | 1. Ensure the personnel to be more careful when working at that such area. 2. Provide fresh water and the first aid kit and for immediate medical help examination.Prepare further medical examination as necessary. | 2 | D | 2D | Project Leader/LM |
| 3. | Bad weather such as: heavy rain, thunderstorms, and high-speed winds during performing maintenance A check at the Line Maintenance. | The task job of maintenance up to including A Check was unable to be accomplished safely due to bad weather constrained. | Maintenance up to including A Check was unable to be performed in timely manner. | 3 | D | 3D | Perform maintenance up to including A Check aircraft Airbus A330 at Station Kualanamu (KNO) when the weather is clear. | 2 | D | 2D | Project Leader/LM |
| 4. | Insufficient lighting facility at Kualanamu (KNO) Line maintenance. | Aircraft A check will be constained due to insufficient lighting facility at station Kualanamu (KNO). | Aircraft A check was unable to be completed properly. | 4 | C | 4C | Ensure lighting facility at station Kualanamu (KNO) is adequate to perform the job in the night.Provided the portable lighting as necessary. | 1 | D | 1D | Project Leader/LM |

**5. CONCLUSION**

Based on the Hazard Identification Risk Assessment result, to perform maintenance up to A Check Aircraft Airbus A 330 at station Kualanamu (KNO) is acceptable.

Project leader shall conduct safety briefing to the personnel involved during this HIRA process before maintenance up to A check 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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