

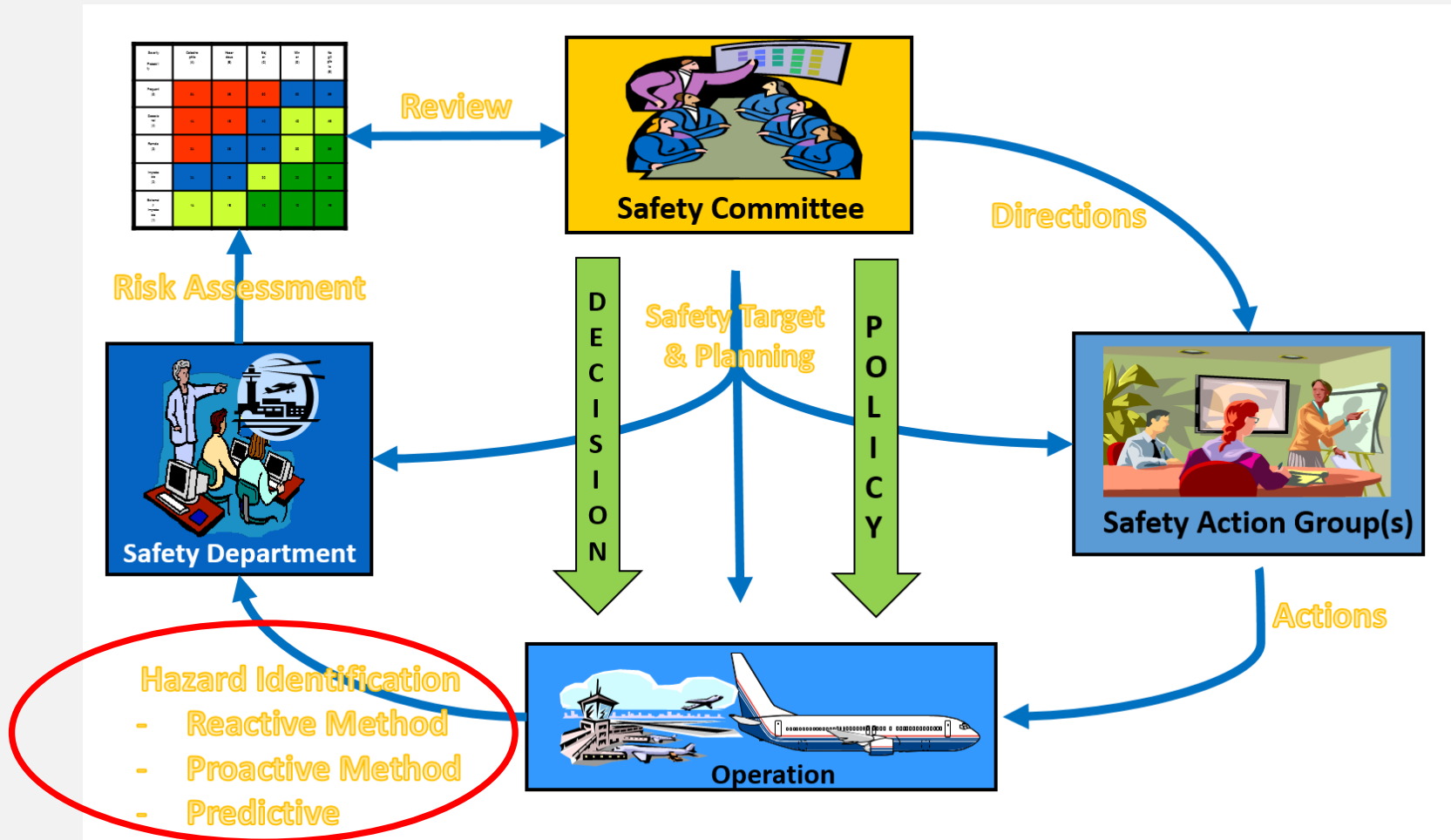


GMF AeroAsia

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# Mx LOSA Experience, Implementation and Benefit

Prepared by  
Quality Assurance & Safety  
PT. GMF AeroAsia Tbk.



GMF Aeroasia has established Safety Management System since 2007 by implement four element and twelve component which required by ICAO. Mx LOSA is one of the twelve component SMS Framework, in Hazard Identification Process which has also been implemented to reduce and maintain risk at or below acceptable level.



# Hazard Identification

## • MEDA

Reactive  
Method

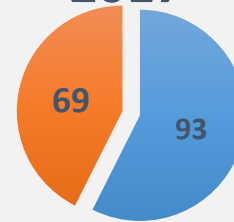
Proactive  
Method

- Safety Reporting
- Surveillance
- Audit

- MX LOSA
- HIRAM

Predictive  
Method

## NCR 2016 Vs 2017

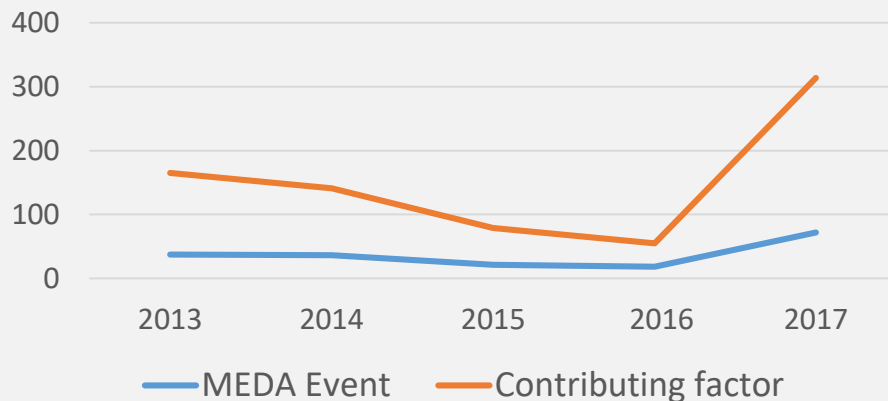


■ 2017 ■ 2016

Safety Surveillances have been performed 65 times in 2017 from target 48 times.

31 item HIRAM was developed in order to maintain hazard caused by management of change, new project or new system.

## Trend of MEDA Event and Contributing Factor



## Voluntary Safety Reporting Trend 2013 - 2017





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# MX LOSA Journey



2010

Mx LOSA Training by  
(William L. Rankin,  
Ph.D.)



2011

Mx LOSA Training to  
related GM , Safety  
Messenger and Selected  
person by VP. Quality  
Assurance & Safety



2012

Develop New Procedure  
QP 218-02 Maintenance  
Line Operation Safety  
Audit



2013 – Now

Mx LOSA  
Implementation



 <b>GMF AeroAsia</b> <small>gms-gmfaeroasia.com</small>			<h2 style="text-align: center;">Training Attendance List</h2>			
Course Title : Mx-LOSA Implementation						
Date :	2011		up to			
Duration :	8		hours			
Place :	GMS GMF AeroAsia Congkawang					
No.	Trainee Name	Trainee No.	Dept.	Signature		Remarks
				15		
				Jul		
				11		
26	Kusanto	521653	TCW			
27	Endro Cahyo	522778	TCW			
28	Pudjo Seneke	524754	TUB			
29	Nurul Haj	518567	TUG			
30	Joko Purnomo	527951	TLM			
31	Andi Dicky	518328	TUB			
32	Dumadi	518578	TLS			
33	Danu Priantoro	528555	TRJ			
34	Agung Setiawan	520160	TRP			
35	Makdi	520160	TRP			
36	Abdurrahman	528211	TW			
37	Erman Noor Adi	524141	TQY			
38	Umar Fauzi	530430	TQY			
39	Syaffarudin Slegar	522008	TQY			
40	Hugusko Waljanto	521942	TQY			
41	Saryono	520180	TQY			
42	Isma Faisal	518743	TQY			
43	Hani Kristian	ITS	ITS			
44	Aniraga	ITS	ITS			
Instructor Name & Signature				Class Leader Name & Signature		
 ( Firdaus Abdullah )				 ( Sudiono )		
Form No.: GMF/0-007 R2						

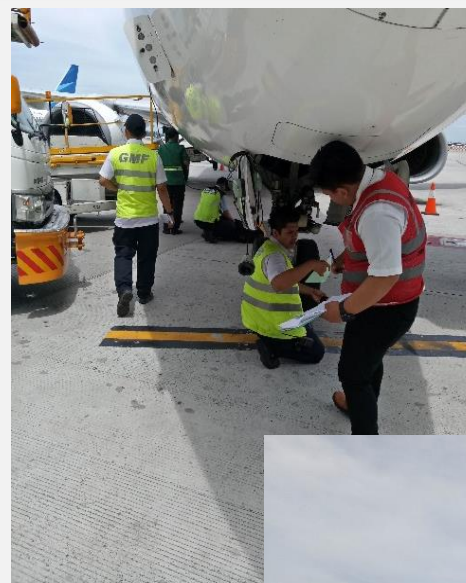
GMFAeroAsia		QUALITY PROCEDURE	
MAINTENANCE LINE OPERATION SAFETY AUDIT		QP-218-02	
The current version of this QP is Issue 8 Revision 0 and comprises of the pages listed below:			
TABLE OF CONTENTS & LIST OF EFFECTIVE PAGES			
Title	Issue/Revision/Date	Page	
Cover page	Issue 8/Rev.0/29 July 13	1	
Table of Content & List of effective pages	Issue 8/Rev.0/29 July 13	2	
1. ORIGINATOR	Issue 8/Rev.0/29 July 13	3	
2. APPLICABILITY	Issue 8/Rev.0/29 July 13	3	
3. REFERENCE	Issue 8/Rev.0/29 July 13	3	
4. PURPOSE	Issue 8/Rev.0/29 July 13	3	
5. DEFINITIONS	Issue 8/Rev.0/29 July 13	3	
6. ASSOCIATED PROCEDURES	Issue 8/Rev.0/29 July 13	3	
7. RESPONSIBILITY AND PROCEDURE			
7.1 Process flow	Issue 8/Rev.0/29 July 13	4-6	
7.2 Quality records and forms	Issue 8/Rev.0/29 July 13	7	
7.3 Requirements	Issue 8/Rev.0/29 July 13	8	
7.4 Instruction for completion of Mx LOSA Form	Issue 8/Rev.0/29 July 13	9	
Exhibit 1 Hazard (Threat) Codes List	Issue 8/Rev.0/29 July 13	10-14	
<p>Issued by: GM. Safety/Inspection</p> <p>Date: 14 October 2015</p> <p>Accepted by: VP. Quality Assurance &amp; Safety</p> <p>ERMAN NOOR ADI</p> <p>GANIS KRISTANTO</p>			
Form No.: GMF/Q 218-01			
Issue 8	Revision 0	Date: 29 July 2013	Page 1 of 14
Form No.: GMF/Q 218-01			
CONTROLLED COPY/DO NOT DUPLICATE			

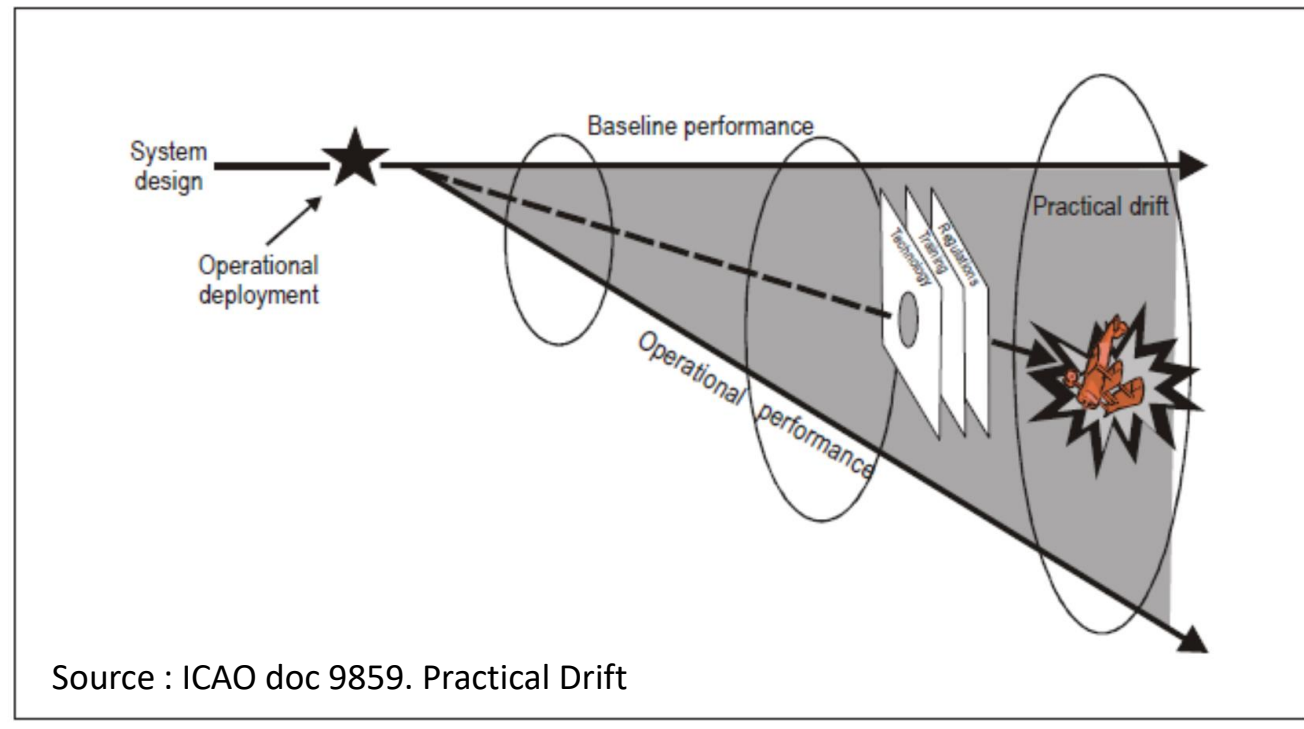
GMFAeroAsia		QUALITY ASSURANCE & SAFETY REPORT	
Title: MX LOSA Report		No : 7201/MX/001/2017	
Subject: Removal of Splitter Fairing Engine CFM56-7B ESN 804474		Date : 01 August 2017	
Distribution: DT, DR, TC, TD, File		Author: TMS, TMS	
		Revised: TMS	
		Prepared by: TMS / Det. No. 8 / Safety	
		Checked by: Angga Dwi Cahyo S.	
		Approved by: Harshad Wipra	
<p>I. GENERAL INFORMATION</p> <p>MX LOSA is a method in Safety Management System that aims to capture hazard or threat by own observations of task being carried out conducted by trained observers. The purpose of MX LOSA is to stop errors from occurring that lead to injuries, equipment / aircraft damage, engine process failures, and other events.</p> <p>II. EVENT</p> <p>On July 20<sup>th</sup> 2017, MX LOSA has been performed to observe removal of fan and booster module process subject 72-06-21-040-052 "Remove splitter fairing" ref. subord no. 801764079 in the engine CFM56-7B ESN 804474.</p> <p>III. OBSERVATION DATA</p> <p>Figure 1. Splitter Fairing Removal Process</p> <p>Figure 1. MX LOSA Observer at PE-GMO at parking stand G45, CGK terminal 3</p>			
<p>Form No.: GMF-Q 218-01</p> <p>Page 1 of 3</p> <p>002/2017</p> <p>1.3.1. 2017</p> <p>gan</p> <p>4 Cahyo S.</p> <p>MSA</p> <p>card or threat</p> <p>1. The purpose</p> <p>will / aircraft</p>			





MX LOSA Has been performed in some areas such as Line Maintenance Hangar Support, Line Maintenance Apron Narrow Body, Line Maintenance Apron Wide Body, Engine Maintenance Shop , Component Maintenance Shop, and also Base Maintenance.





- Basically LOSA Characteristic are “Fly on the wall” it better perform spontaneously, it does not need a formal notification to production unit, because they became well prepared. So that the behaviour of maintenance process **does not reflect the common situation.**
- **Mx LOSA was very best tool to capture Practical Drift**



## Mx LOSA Experiences Cont'

MX LOSA – Threat Classification	MEDA – Contributing Factor
T/A. Information T/B. Equipment/Tools/Safety Equipment T/C. Aircraft Design/ Configuration/ Parts T/D. Job/ Task T/E. Knowledge/ Skills T/F. Individual Factors T/G. Environment/Facilities. T/H. Organizational/ Supervision T/I. Leadership/ Supervision T/J. Communication T/K. Quality Control T/L. Other	A. Information B. Ground Support Equipment / Tools / Safety Equipment C. Aircraft Design D. Job / Task E. Knowledge / Skills F. Individual Factors G. Environment / Facilities H. Organizational Factors I. Leadership / Supervision J. Communication.

- **Mx LOSA Threat Classification** are slightly similar with **MEDA Contributing Factor**, the main different are **MEDA** is for **Reactive** and **Mx LOSA** is for **Proactive** and **Predictive** Hazard Identification, so the employees prefer Mx LOSA rather than MEDA.



Persuasive approach Communication are the key succes of Mx LOSA, **Promote LOSA and , Emphasize that LOSA is not for disciplinary purposes** and that the forms or reports **do not include any personal information.**



## Trust Building

- Employee are felt helped by Mx LOSA process that identified hazard and remind when the error outcome. Persuasive approach helps them in working to keep looking at quality & safety.

## Just Culture

- Mx LOSA support Just Culture and helped the implementation of SMS in all aspect, especially for employee become cooperative with safety department in order to provide essential safety related information. (Voluntary reporting has been raised up each year)
- The atmosphere of safety in employees are rised up because they want to avoid error before Mx LOSA perform, so they became aware of the hazard and identified by using safety reporting.

## Proactive & Predictive Method

- MX LOSA was very best tool for capture practical drift.



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# Art of — **P**erfection

Thank You 😊

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