

MNT



RIYADH AIR  
طيران الرياض

# GENERAL MAINTENANCE MANUAL

## Department

ENGINEERING & MAINTENANCE

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## 0.2 REVISION HIGHLIGHTS

This table summarizes the major changes made to each revision, not all changes. Throughout each review cycle, subsequent entries may change prior entries or proposed changes may be held, disregarded, and/or obsolete. This is a summary of input received throughout the duration. Changes throughout the manual are indicated by vertical revision bars.

**Note:** The vertical bar (change bar) in the margin indicates a change, addition, or deletion in the adjacent text for the current revision of that page only.

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## **0.3 RECORD OF REVISIONS**

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# GENERAL MAINTENANCE MANUAL

- 0 FRONT MATTER
- 0.5 LIST OF EFFECTIVE PAGES

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## 0.8 LIST OF COMPLIANCE ENTRIES

GACA REF	SUBJECT	GMM Ref
121.45-a	Management Personnel Required.	1.2.1 Organizational Chart
121.45-b	Management Personnel Required.	N/A for Scheduled Operator
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121.151-a	Distribution and Availability.	0.13.3 Distribution List and Availability
121.151-b	Distribution and Availability.	0.13.3 Distribution List and Availability Manual is distributed through DMS (Document Management System -Electronic Media)
121.151-c	Distribution and Availability.	0.13.3 Distribution List and Availability Manual is Distributed through DMS (Document Management System -Electronic Media)
121.155-a	Requirement for Manual Aboard Aircraft: Unscheduled Operations.	N/A for Scheduled Operations
121.155-b	Requirement for Manual Aboard Aircraft: Unscheduled Operations.	N/A for Scheduled Operations
121.197-a	Mass and Balance Control.	3.11 Aircraft Mass and Balance Program
121.431	Continuing Airworthiness.	4 Maintenance and Inspection Program Refer Standalone AMP Manual
121.437-a	Fuel Tank Access Covers.	Production Complied. Refer to Type Certificate 25-363-SC Tire Debris Penetration of Fuel Tank Structure



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GACA REF	SUBJECT	GMM Ref
121.437-b	Fuel Tank Access Covers.	Production Complied. Refer Type Certificate 25-348-SC Composite Wing and Fuel Tank Structure—Fire Protection Requirements
121.473-c	Electrical Wiring Interconnection Systems Maintenance Program.	Complied Through EWIS Inspection Program as Covered in AMP (Aircraft Maintenance Program)
121.473-d	Electrical Wiring Interconnection Systems Maintenance Program.	Complied Through EWIS Inspection Program as Covered in AMP (Aircraft Maintenance Program)
121.473-e	Electrical Wiring Interconnection Systems Maintenance Program.	Aircraft Maintenance Program and its revisions will be submitted for approval by GACA before implementation.
121.477-c	Fuel Tank System Maintenance Program.	Complied Through FTS (CDCCL) Inspection Program as Covered in AMP (Aircraft Maintenance Program)
121.477-d	Fuel Tank System Maintenance Program.	Complied Through FTS (CDCCL) Inspection Program as Covered in AMP (Aircraft Maintenance Program)
121.477-e	Fuel Tank System Maintenance Program.	Aircraft Maintenance Program and its revisions will be submitted for approval by GACA before implementation.
121.509-b	Emergency Medical Equipment.	3.1.9 Handling of First Aid Kit, Universal Precaution Kit and Emergency Medical Kit/Doctor's Kit
121.521-d	Communication and Navigation Equipment.	3.1.7 Loadable Database Software / Navigation Database (NDB) Updating
121.655-a	Certificate Requirements.	2.2 Airframe and Powerplant Certification Privileges 2.3 Maintenance Certificate Requirements 2.6 Airworthiness Release or Aircraft Technical Logbook Entry 2.7 Issue and Control of Aircraft Inspector Stamp 5.1 Required Inspection Item
121.659-a	Responsibility for Airworthiness.	2 Airworthiness Responsibility 2.1 Aircraft Airworthiness Requirements
121.659-b	Responsibility for Airworthiness.	7.1 Contract Maintenance Process 3.6.3 Component Changes at Outstations



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GACA REF	SUBJECT	GMM Ref
121.663-a	Authority To Perform and Approve Maintenance, Preventive Maintenance, and Alterations.	2 Airworthiness Responsibility 2.1 Aircraft Airworthiness Requirements 4 Maintenance and Inspection Program Currently no Third-Party Work is Undertaken by Riyadh Air
121.663-b	Authority To Perform and Approve Maintenance, Preventive Maintenance, and Alterations.	3.4.1 Aircraft Records and Time Control 3.7 Technical Log
121.667-a	Continuous Airworthiness Maintenance Program.	4 Maintenance and Inspection Program Refer Standalone AMP
121.667-b	Continuous Airworthiness Maintenance Program.	4 Maintenance and Inspection Program 4.2 Continuous Airworthiness Maintenance Program Refer AMP and Standalone Reliability Manual
121.667-c	Continuous Airworthiness Maintenance Program.	4 Maintenance and Inspection Program 4.2 Continuous Airworthiness Maintenance Program
121.671	CAMP for Two Engine ETOPS.	Refer AMP for ETOPS Related Tasks
121.675-a	Maintenance, Preventive Maintenance, and Alterations Organization.	7.1 Contract Maintenance Process 7.2 Essential/Substantial Maintenance
121.675-b	Maintenance, Preventive Maintenance, and Alterations Organization.	5.1 Required Inspection Item 5.2 Designation of Items of Maintenance And Alteration 7.1 Contract Maintenance Process
121.675-c	Maintenance, Preventive Maintenance, and Alterations Organization.	5.1 Required Inspection Item
121.679-a	Maintenance, Preventive Maintenance, and Alterations Programs.	2.6 Airworthiness Release or Aircraft Technical Logbook Entry



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GACA REF	SUBJECT	GMM Ref
121.679-b	Maintenance, Preventive Maintenance, and Alterations Programs.	1.6 Maintenance Facilities 1.7 Head Office 1.8 Records Storage Facility 2.2 Airframe and Powerplant Certification Privileges 2.6 Airworthiness Release or Aircraft Technical Logbook Entry 2.7 Issue and Control of Aircraft Inspector Stamp
121.679-c	Maintenance, Preventive Maintenance, and Alterations Programs.	2.6 Airworthiness Release or Aircraft Technical Logbook Entry 3.6.2 Required Inspection Items Away from Base 4 Maintenance and Inspection Program
121.681-a	Contract Maintenance.	7 Contract Maintenance 7.1 Contract Maintenance Process 7.2 Essential/Substantial Maintenance
121.681-b	Contract Maintenance.	7 Contract Maintenance 7.1 Contract Maintenance Process 7.2 Essential/Substantial Maintenance
121.681-c	Contract Maintenance.	7 Contract Maintenance 7.1 Contract Maintenance Process 7.2 Essential/Substantial Maintenance
121.681-d	Contract Maintenance.	7 Contract Maintenance 7.1 Contract Maintenance Process 7.2 Essential/Substantial Maintenance
121.683	Manual Requirements.	GMM R0
121.687-a	Required Inspection Personnel.	5.1 Required Inspection Item 5.1.5 RII Qualifications
121.687-b	Required Inspection Personnel.	5.1 Required Inspection Item 5.1.2 Responsibility
121.687-c	Required Inspection Personnel.	5.1 Required Inspection Item
121.687-d	Required Inspection Personnel.	2.6 Airworthiness Release or Aircraft Technical Logbook Entry 5.1 Required Inspection Item 5.1.4 RII Procedures 7.4 Maintenance Provider List 7.4.6 Required Inspections Roster/List of Certifying Staff



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GACA REF	SUBJECT	GMM Ref
121.691-a	Continuing Analysis and Surveillance.	Covered in Standalone Continuing Analysis and Surveillance (CASS) Manual
121.691-b	Continuing Analysis and Surveillance.	Will be complied
121.695	Maintenance and Preventive Maintenance Training Program.	Covered In Standalone Technical Training Manual (TTM)
121.699-a	Maintenance Recording Requirements.	6 Maintenance Recordkeeping System 6.1 Aircraft Records and Retention
121.699-b	Maintenance Recording Requirements.	6 Maintenance Recordkeeping System 6.1 Aircraft Records and Retention
121.699-c	Maintenance Recording Requirements.	6 Maintenance Recordkeeping System 6.1 Aircraft Records and Retention
121.703-a	Transfer of Maintenance Records.	6 Maintenance Recordkeeping System 6.1 Aircraft Records and Retention
121.703-b	Transfer of Maintenance Records.	6 Maintenance Recordkeeping System 6.1 Aircraft Records and Retention
121.1033-a	Maintenance and Preventive Maintenance Personnel Duty Time Limitations.	2.9 Maintenance Duty Time Limitations
121.1259	Refueling With Passengers on Board.	3.1.6 Refueling and Defueling When Passengers are Embarking / Disembarking / On Board.
121.1537	Fuel and Oil Records.	3.3.5 Fuel and Oil Consumption Monitoring and Records
121.1541-a	Maintenance Log: Aircraft.	3.4.3 Aircraft Technical Records and Its Completion 3.7 Technical Log 3.7.1 Aircraft Technical Logbook Instructions
121.1541-b	Maintenance Log: Aircraft.	3.7 Technical Log 3.7.1 Aircraft Technical Logbook Instructions
121.1545-a	Airworthiness Release or Aircraft Log Entry.	2.6 Airworthiness Release or Aircraft Technical Logbook Entry 3.4.2 Basic Signature Policy
121.1545-b	Airworthiness Release or Aircraft Log Entry.	2.6 Airworthiness Release or Aircraft Technical Logbook Entry 3.4.2 Basic Signature Policy



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GACA REF	SUBJECT	GMM Ref
121.1545-c	Airworthiness Release or Aircraft Log Entry.	7.2 Essential/Substantial Maintenance
121.1549-a	Alteration and Repair Reports.	3.1.4 Major / Minor Repairs and Alterations
121.1549-b	Alteration and Repair Reports.	3.1.4 Major / Minor Repairs and Alterations
121.1553-a	Service Difficulty Reports.	2.8.2 Service Difficulty Report
121.1553-b	Service Difficulty Reports.	2.8.2 Service Difficulty Report
121.1553-c	Service Difficulty Reports.	2.8.2 Service Difficulty Report
121.1553-d	Service Difficulty Reports.	2.8.2 Service Difficulty Report
121.1553-e	Service Difficulty Reports.	N/A for Scheduled Operator
121.1553-f	Service Difficulty Reports.	2.8.2 Service Difficulty Report
121.1553-g	Service Difficulty Reports.	2.8.2 Service Difficulty Report
121.1557-a	Mechanical Interruption Summary Report.	2.8.4 Mechanical Interruption Summary Report
121.1559-a	ETOPS System Performance Reports.	Periodic Summary Report is covered in Engineering Statistics Report which is part of Reliability Manual
121.1565-a	Document Retention.	Refer Standalone Technical Training Manual
121.1567-b	Electronic Recordkeeping.	6.2 Electronic Record Keeping
121.1567-c	Electronic Recordkeeping.	6.2 Electronic Record Keeping
121.1567-d	Electronic Recordkeeping.	6.2 Electronic Record Keeping
121.1567-e	Electronic Recordkeeping.	6.2 Electronic Record Keeping
121.1609-a	Dangerous Goods Training Program.	Refer Standalone Technical Training Manual (TTM)
Part-121-AppendixG-II-a	Manual Requirements	5.1 Required Inspection Item 7.4 Maintenance Provider List
Part-121-AppendixG-II-b	Manual Requirements	4 Maintenance and Inspection Program 4.2 Continuous Airworthiness Maintenance Program
Part-121-AppendixG-II-c-1	Manual Requirements	2.6 Airworthiness Release or Aircraft Technical Logbook Entry 3.1.3 Managing Non-Routine Discrepancies During Aircraft Maintenance 3.1.4 Major / Minor Repairs and Alterations 3.2.2 Scheduled Events Monitoring



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GACA REF	SUBJECT	GMM Ref
Part-121- AppendixG-II-c-2	Manual Requirements	5.2 Designation of Items of Maintenance and Alteration as RII 4 Maintenance and Inspection Program Refer AMP For Scheduled Inspection RII Tasks
Part-121- AppendixG-II-c-3	Manual Requirements	5.1 Required Inspection Item
Part-121- AppendixG-II-c-4	Manual Requirements	5.1.5 Performing A Required Inspection Item
Part-121- AppendixG-II-c-5	Manual Requirements	3.9.10 Calibration of Precision Tools, Measuring and Test Equipment 5.1 Required Inspection Item 5.3 Countermand Procedures
Part-121- AppendixG-II-c-6	Manual Requirements	2.6 Airworthiness Release or Aircraft Technical Logbook Entry 3.1.2 Shift Change or Work Interruption Record
Part-121- AppendixG-II-c-7	Manual Requirements	5.1 Required Inspection Item
Part-121- AppendixG-II-c-8	Manual Requirements	5.3 Countermand Procedures
Part-121- AppendixG-II-c-9	Manual Requirements	3.1.2 Shift Change or Work Interruption Record
Part-121- AppendixG-II-c-10	Manual Requirements	3.6.1 Maintenance and Inspection Away from Maintenance Base 7.3 Line Station Maintenance Handling
Part-121- AppendixG-II-c-11	Manual Requirements	7 Contract Maintenance 7.1 Contract Maintenance Process 7.2 Essential/Substantial Maintenance
Part-121- AppendixG-II-d-1	Manual Requirements	3.4 Technical Records 3.4.1 Aircraft Records and Time Control 6.2 Electronic Record Keeping
Part-121- AppendixG-II-d-2	Manual Requirements	Not Performed by any Outside Agency
Part-121- AppendixG-II-d-3	Manual Requirements	Work not contracted to any Outside Party/Agency
Part-121- AppendixG-II-e	Manual Requirements	2.10 Safety



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GACA REF	SUBJECT	GMM Ref
Part-121- AppendixG-II-f	Manual Requirements	3.1.10 Hot and Cold Weather Maintenance
Part-121- AppendixG-II-g	Manual Requirements	3.1.1 Deferred Maintenance Procedures 3.1.3 Managing Non-Routine Discrepancies during Aircraft Maintenance 3.5.2 Recurring or Repeated Flight and Ground Discrepancies 3.5.3 Hold Item List (HIL) Management Program 3.6.1 Maintenance and Inspection Away from Maintenance base
Part-121- AppendixG-II-h	Manual Requirements	Refer Standalone Technical Training Manual (TTM)
Part-121- AppendixG-II-i	Manual Requirements	1.4 Duties and Responsibilities 1.4.6 Director of MCC 3.2 Maintenance Planning 3.5 Maintenance Control
Part-121- AppendixG-II-j	Manual Requirements	Refer Standalone Reliability Manual
Part-121- AppendixG-II-k	Manual Requirements	2.8.2 Service Difficulty Report
Part-121- AppendixG-II-l	Manual Requirements	3.3.2 Service Bulletins 3.3.3 Engineering Order 3.1.4 Major / Minor Repairs and Alterations
Part-121- AppendixG-II-m	Manual Requirements	3.3.1 Airworthiness Directive Management Program 4 Maintenance and Inspection Program
Part-121- AppendixG-II-n	Manual Requirements	Refer Standalone CASS Manual and Reliability Manual
Part-121- AppendixG-II-o	Manual Requirements	2.8.1 GACA-AS Reporting 2.11 Aircraft Listing
Part-121- AppendixG-II-p	Manual Requirements	3.1.1 Deferred Maintenance Procedures 3.5.3 Hold Item List (HIL) Management Program 3.7.2 MEL/CDL, Non-MEL Deferral and Procedure
Part-121- AppendixG-II-q	Manual Requirements	2.8.2 Service Difficulty Report 2.8.3 Service Difficulty Reports (Structural)



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Part-121- AppendixG-II-r	Manual Requirements	Covered in Standalone Technical Training Manual (TTM)

*Table 4 Compliance Status*

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Issue: 00  
Revision: 00  
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## 0.9 MANAGEMENT APPROVAL

Manual Number:	RXI/OPS-MNT-M01
Title:	<b>GENERAL MAINTENANCE MANUAL</b>
Issue:	00
Revision:	00

Recommended by:	Date:
Title:	
Signature:	

Quality Review by:	Date:
Title:	
Signature:	

Approved by:	VP Engineering and Maintenance	Date:
Title:		
Signature:		



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0.10 GACA APPROVAL / ACCEPTANCE

Issue: 00  
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## 0.10 GACA APPROVAL / ACCEPTANCE

*This manual is a controlled document, prepared to meet the requirements of the General Authority of Civil Aviation Regulations (GACAR) and is herewith accepted/approved by the General Authority of Civil Aviation (GACA) exclusively for the use of Riyadh Air.*

*If any conflict exists between the contents of this manual and GACA requirements, GACA requirements shall take precedence, and the manual will be revised without delay in accordance with GACA [GACAR Part-121](#).*

*All contents of this manual are current, as listed in the List of Effective Pages (LEP) Revision 0. 18 Feb 2024.*

*This manual becomes 'uncontrolled' when printed.*

Name:	Date:
Title:	
Signature:	
Stamp:	

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## 0.11 INTRODUCTION

### 0.11.1 Policy

IOSA MNT 4.5.1

At Riyadh Air, safety is our top priority, and it is deeply embedded in our core values. We are committed to providing safe and airworthy aircraft while maintaining the highest standards of professionalism.

This General Maintenance Manual (GMM) is accepted by the General Authority of Civil Aviation (GACA) and it is compliant with all relevant GACA regulations and applicable international standards. It is the method by which Riyadh Air ensures competence of Engineering and Maintenance personnel.

The General Maintenance Manual (GMM) contains policies and procedures that need to be followed and provide Engineering and Maintenance personnel the knowledge to accomplish specific functions efficiently.

A copy of this Manual and its subparts is issued to all Riyadh Air Engineering and Maintenance personnel, and other parties and official authorities involved in Riyadh Air's maintenance operations. If any personnel have questions regarding the information in this Manual or considers that a policy, procedure or instruction needs amendment, they should address their inquiry to Engineering and Maintenance department, attention VP – Engineering and Maintenance.

The copyright of this Manual belongs to Riyadh Air. No parts of this publication should be reproduced, stored in a retrieval system, or transmitted in any form or by any means, i.e., electronic, mechanical, photocopying, recording, or otherwise, without prior written permission from Riyadh Air.

### 0.11.2 Applicability

The General Maintenance Manual (GMM) is an essential guide for all Engineering and Maintenance personnel, including maintenance providers, to understand and follow the procedures specified when working on Riyadh Air aircraft.

### 0.11.3 Common Language

REFER TO CPM 0.11.1

English shall be the language used for all operational communications at Riyadh Air. This is to help eliminate misunderstandings and ensure clear and standardized interactions between all employees. Riyadh Air's decision to implement English as a language protocol is a strategic one aimed at promoting safety and consistency within its operational framework.



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## 0.11.4 Usage of Terms

Refer to CPM 0.11.2

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## 0.11.5 Human Factor Principles

GACAR § 121.139(C)(7)

REFER TO CPM 0.11.5

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## 0.11.6 Applicable Regulations and Standards

Refer to CPM 0.11.6

## 0.11.7 Sections Of the Manual Subject To Gaca Approval

The following elements and sections of this manual require specific approval from the GACA prior to change:

1. Any change to the scope of the Air Operator Certificate (AOC), operations specifications, or
2. Any change to Riyadh Air's management personnel required under GACAR § 121.45, or
3. Any change to Riyadh Air's Management System, or
4. Any addition or deletion or any change to course content that complies with a GACAR.

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## 0.12 ABBREVIATIONS, ACRONYMS AND DEFINITIONS

### 0.12.1 Abbreviations And Acronyms

A	
A/C	Aircraft
AC	Advisory Circular
ACL	Aircraft Cabin Logbook
AD	Airworthiness Directive
ADJ	Adjust
AE	Accountable Executive
AFM	Aircraft Flight Manual
AIB	The Aviation Investigation Bureau of the Kingdom of Saudi Arabia
AIP	Aircraft Inspection Program
ALE	Aircraft Log Entry
AML	Aircraft Maintenance Log
AMM	Aircraft Maintenance Manual
AMO	Approved Maintenance Organization
AMOC	Alternate Means of Compliance
AMOS	Airline Maintenance & Operational System
AMP	Aircraft Maintenance Program
AOA	Angle Of Attack
AOC	Air Operator Certificate
AOG	Aircraft On Ground
A/P	Airframe and Power Plant
APU	Auxiliary Power Unit
ATA	Air Transport Association
ATC	Air Traffic Control
ATL	Aircraft Technical Logbook
AWR	Airworthiness Release
B	
BASA	Bilateral Aviation Safety Agreement
BEW	Basic Empty Weight
BSI	Borescope Inspection



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## C

CAA	Civil Aviation Authority
CAMP	Continuous Airworthiness Maintenance Program
CAPT	Captain
CAS	Continuing Analysis and Surveillance
CASE	Coordinating Agency for Suppliers' Evaluation
CASP	Continuing Analysis and Surveillance Program
CDL	Configuration Deviation List
CHAP	Chapter
CI	Chief Inspector
CMM	Component Maintenance Manual
CRS	Certificate Of Release to Service
CVR	Cockpit Voice Recorder
C/W	Complied With
CYC	Cycle
CYCS	Cycles

## D

DAR	Document Assessment Report
DER	Designated Engineering Representative
DFDR	Digital Flight Data Recorder
DI	Detailed Inspection or Delegated Inspector
DMI	Deferred Maintenance Item
DMS	Data Management Software
DO	Director Of Operations
DOA	Design Organization Approval
DOM	Director Of Maintenance (VP Engineering and Maintenance)

## E

EASA	European Union Aviation Safety Agency
EFB	Electronic Flight Bag
EGT	Exhaust Gas Temperature
ELB	Electronic Logbook
EO	Engineering Order
ERP	Emergency Response Procedure



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ESDS	Electrostatic Discharge Station
EST	Estimated
ETOPS	Extended Range Twin Engine Operations
EWIS	Electrical Wiring Interconnection System
<b>F</b>	
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FCF	Functional Check Flight
FDR	Flight Data Recorder
FIFO	First-In First-Out
FIM	Fault Isolation Manual
FO	First Officer
FOD	Foreign Object
FT	Functional Test
FTB	Flight Turn Back
<b>G</b>	
GACA-AS	General Authority of Civil Aviation - Safety, Airworthiness and Safety Standards
GACAR	General Authority of Civil Aviation Regulation
GMM	General Maintenance Manual
GPU	Ground Power Unit
GSE	Ground Support Equipment
<b>H</b>	
HIL	Hold Item List
HRS	Hours
HT	Hard Time
<b>I</b>	
IATA	International Air Transport Association
IAW	In Accordance With
ICA	Instruction For Continued Airworthiness
ICAO	International Civil Aviation Organization
IFSD	In-Flight Shutdown
INOP	Inoperative
INSP	Inspect / Inspector



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IOCC	Integrated Operation Control Center
IOSA	IATA Operational Safety Audit
IPC	Illustrated Parts Catalog
<b>K</b>	
KSA	Kingdom Of Saudi Arabia
<b>L</b>	
LLP	Life Limited Parts
LOC	Location
LOPA	Layout Of Passenger Accommodations
LRU	Line Replacement Unit
<b>M</b>	
MAX	Maximum
MCC	Maintenance Control Center
MEL	Minimum Equipment
MIS	Mechanical Interruption Summary
MMEL	Master Minimum Equipment List
MNT	Maintenance
MPD	Maintenance Planning Document
MRR	Mechanical Reliability Report
MRC	Maintenance Reliability Control
MRO	Maintenance, Repair and Overhaul
MSDS	Material Safety Data Sheet
<b>N</b>	
N/A	Not Applicable
NCR	Non-Conformity Report
NDI	Non-Destructive Inspection
NDT	Non-Destructive Testing
NEF	Non-Essential Equipment and Furnishing
NFF	No Fault Found
NR	Not Required
NR	Non-Routine
NRC	Non-Routine Card
NTC	Notice to Crew



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NTSB	National Transportation Safety Board
<b>O</b>	
OCC	Operations Control Center
OCF	Operational Check Flight
OEM	Original Equipment Manufacturer
OJT	On-The-Job Training
OOS	Out Of Service
OPC	Operational Check
OPS	Operations
OPSPECS	Operations Specifications
OTA	One-Time Authorization
<b>P</b>	
PCW	Previously Complied With
PDSC	Pre-Departure Service Check
PER	Premature Engine Removal
PIC	Pilot In Command
PIREM	Pilot Remark
PIREP	Pilot Report
PMA	Parts Manufacturing Approval
PMC	Parts And Material Control
P/N	Part Number
PO	Purchase Order
PPE	Personal Protective Equipment
<b>Q</b>	
QA	Quality Assurance
QC	Quality Control
QI	Quality Inspection
<b>R</b>	
RDAF	Repair Design Approval Form
RDAS	Repair Design Approval Sheet
RECD	Received
REF	Reference
RI	Removal and Installation



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RII	Required Inspection Item
RO	Repair Order
RQ	Request Or Requisition
RTB	Return to Base
RTS	Return To Service
RXI	Riyadh Air
<b>S</b>	
S&AS	Safety & Aviation Standards
Sag	Safety Action Group
SB	Service Bulletin
SDR	Service Difficulty Report
SFAR	Special Federal Aviation Regulation
SFP	Special Flight/Ferry Permit
SL	Service Letter
SLA	Service Letter Agreement
SMS	Safety Management System
S/N	Serial Number
SPT	Safety Performance Target
SRM	Structural Repair Manual
SSI	Supplemental Structural Inspections
STA	Station
STC	Supplemental Type Certificate
SUP	Suspected Unapproved Part
<b>T</b>	
TAT	Total Airframe Time
TAT	Total Air Temperature
TBO	Time Between Overhaul
TCDS	Type Certificate Data Sheet
TGT	Turbine Gas Temperature
TO	Take Off
TR	Temporary Revision
T&RU	Taxi And Run Up
TS	Technical Services



# GENERAL MAINTENANCE MANUAL

0 FRONT MATTER

0.12 ABBREVIATIONS, ACRONYMS AND DEFINITIONS

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TSI	Time Since Installation
TSLR	Time Since Last Repair
TSM	Troubleshooting Manual
TSN	Time Since New
TSO	Time Since Overhaul
TT	Total Time
<b>U</b>	
U/S	Unserviceable
UTC	Universal Coordinated Time
<b>W</b>	
WC	Work Card
WBM	Weight And Balance Manual
WT	Weight
<b>Y</b>	
YR	Year

## 0.12.2 Definitions

A	
<b>Aircraft component.</b>	Any part, the soundness and correct functioning of which, when fitted on an aircraft, is essential to the continued airworthiness of the aircraft includes any item of equipment.
<b>Aircraft Maintenance Schedule.</b>	A document that describes the specific scheduled maintenance tasks and their frequency of completion and related procedures, such as a reliability program, necessary for the safe operation of those aircraft to which it applies. <i>Note—Also referred to as Aircraft Maintenance Program (AMP) or Aircraft Inspection Program (AIP)</i>
<b>AMOSeTL.</b>	Electronic Technical Log
C	
<b>Covered work.</b>	Covered work means any of the following: Essential maintenance that could result in a failure, malfunction, or defect endangering the safe operation of an aircraft if not performed properly or if improper parts or materials are used, Regularly scheduled maintenance, or A required inspection item on an aircraft.



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## D

<b>Data Entry.</b>	This is the process by which data or information is entered into a computer memory or storage medium. Sources include manually written records, real-time information, and computer-generated data.
<b>Defect.</b>	A condition existing in an aircraft, system, or component arising from any cause other than damage, which would preclude it or another aircraft component from performing their intended functions or would reduce the expected service life of the aircraft or aircraft component. <u>Major Defect</u> . Any defect of such nature that reduces the safety of the aircraft or its occupants. It includes defects that result in an emergency condition or performing any specific maintenance. <u>Repetitive Defect</u> A defect in an aircraft (including its components and systems) which recurs, despite rectification attempts.

<b>Digital Signature.</b>	A digital signature is cryptographically generated data that identifies a document's signatory (signer) and certifies that the document has not been altered.
<b>Directly in Charge.</b>	Directly in charge means having responsibility for covered work performed by a maintenance provider. A representative of the certificate holder directly in charge of covered work does not need to physically observe and direct each maintenance provider constantly but must be available for consultation on matters requiring instruction or decision.

## E

<b>eBook.</b>	Electronic Book
<b>Electronic Record.</b>	A contract, Operations Specifications (OpSpecs), or other records created, generated, sent, communicated, received, or stored by electronic means. A system for maintaining electronic records is referred to synonymously as an electronic recordkeeping system or a computer-based recordkeeping system.
<b>Electronic Signature.</b>	An electronic sound, symbol, or process attached to, or logically associated with, a contract or other record and executed or adopted by a person with the intent for electronically identifying individuals entering, verifying, or auditing computer-based, electronic records, and checking for authenticity. An electronic signature combines cryptographic functions of a digital signature with the image of an individual's handwritten signature or some other form of visible mark that would be considered acceptable in a traditional signing process. It authenticates data with a hash algorithm and provides permanent secure user authentication.



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<b>Essential maintenance.</b>	Essential maintenance encompasses any on-wing accomplishment of any maintenance or alteration that the operator has designated as an RII.
<b>L</b>	
<b>Level 1 Occurrences.</b>	Accidents or serious incidents requiring independent investigation by the AIB.
<b>Level 2 Occurrences.</b>	A significant incident involving circumstances indicating that an accident or a serious incident could have occurred if the risk had not been managed within safety margins. The significant incidents must be investigated within the organization under the monitoring of GACA. Note: GACA may investigate any occurrences based on the severity of occurrences. Initial notification and reporting are necessary for level 2 occurrence listed in Appendix of GACAR Part 4.
<b>Level 3 occurrences.</b>	Safety issues that are not covered under level 1 or 2 can become level 1 or 2 occurrences if such safety issues are not corrected. Level 3 occurrences include latent safety hazards, system malfunctions, and procedural deviations.
<b>Line maintenance.</b>	Maintenance performed for an air operator certificated under GACAR Part 121 or 135, or for a foreign air carrier operating under GACAR Part 129, which is generally performed at the ramp, parking area, or gate, and typically will not exceed 24 continuous hours per aircraft.
<b>M</b>	
<b>Maintenance.</b>	The performance of tasks on an aircraft, engine, propeller, or associated part required to ensure the continuing airworthiness of an aircraft, engine, propeller, or associated part including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair, except transit/preflight inspection/preventive maintenance.
<b>Maintenance Provider.</b>	A Maintenance Provider is any person who performs maintenance, preventive maintenance, or an alteration for a certificate holder other than a person who is trained by and employed directly by that certificate holder.
<b>Maintenance record.</b>	Records that set out the details of the maintenance carried out on an aircraft, engine, propeller, or associated part.
<b>Major alteration.</b>	An alteration not listed in the aircraft, aircraft engine, or propeller specifications— That might appreciably affect mass, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or



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	<p>That is not done according to accepted practices or cannot be done by elementary operations.</p> <p>Note— Further details on alterations that are major alterations are contained in Appendix A to GACAR Part 43.</p>
<b>N</b>	
<b>Non-Routine Maintenance.</b>	<p>Any maintenance that isn't performed at pre-determined intervals.</p>
<b>O</b>	
<b>Operator.</b>	<p>A person, organization, or enterprise engaged in or offering to engage in aircraft operation.</p> <p><i>Note: Operators include, Scheduled, Non-scheduled commercial air operators, State aircraft operator, Private aircraft operator, and any other organization or person engaged in aircraft operation fall under the scope of this definition.</i></p> <p><u>Scheduled Commercial Air Operator.</u> An aircraft operator which operates its fleet, whole or part of it, as per a published schedule.</p>
<b>P</b>	
<b>Preventive maintenance.</b>	<p>Simple or minor preservation operations, transit inspection/pre-flight inspection including fluid charging and the replacement of small standard parts not involving complex assembly operations.</p> <p><i>Note— Also referred to as preflight/transit inspection.</i></p>
<b>R</b>	
<b>Record.</b>	<p>A Record is defined as an account which preserves evidence of the occurrence of an event. In general, a record must show what event occurred, to whom, by whom, when, and proof of the event's occurrence, such as a certification by signature or by electronic means.</p>
<b>Repair.</b>	<p>The restoration of an aircraft, engine, propeller, or associated part to an airworthy condition in accordance with the appropriate airworthiness requirements, after it has been damaged or subjected to wear.</p> <p><u>Major Repair.</u> A repair intended to restore the airworthiness conditions and changes appreciably affect airworthiness by changing weight, balance, structural strength, performance, powerplant operation, or flight characteristics.</p> <p><u>Major repair.</u> A repair</p> <p>That, if improperly done, might appreciably affect mass, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or</p>



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	<p>That is not done according to accepted practices or cannot be done by elementary operations.</p> <p><i>Note— Further details on repairs that are major repairs are contained in Appendix A to GACAR Part 43.</i></p> <p><u>Minor Repair.</u> A repair other than a major repair.</p>
<b>Routine Maintenance.</b>	A maintenance task that is done on a planned and ongoing basis to identify and prevent problems before they result in an equipment or system failure.
<b>S</b>	
<b>Scheduled Maintenance.</b>	Scheduled maintenance consists of all the individual maintenance tasks performed according to the maintenance time limitations (maintenance schedule). The operator's scheduled maintenance activities should include procedural instructions for the maintenance tasks and requirements to record the results of the inspections, checks, tests, and other maintenance.
<b>Special flight permit.</b>	Required when an aircraft does not currently meet applicable airworthiness requirements and as a result does not hold a valid certificate of airworthiness but is capable of safe flight under certain conditions.
<b>Specific Maintenance Requirements for Major Aircraft Components.</b>	The operator's engine maintenance program should cover the maintenance of installed engines and off-wing engines for each engine model it operates. If the operator's aircraft have auxiliary power units (APU), the operator may want to include APU maintenance as part of its engine maintenance program. Usually, the installed engine or APU requirements will be in the maintenance time limitations. In addition to procedural information, the off-wing program described in the operator's maintenance manual should provide shop scheduling information or intervals for cleaning, adjusting, inspecting, testing, and lubricating each part of the engine or APU requiring that maintenance. The operator should include in its maintenance manual the degree of inspection, the applicable wear tolerances, and the work required when the engine or APU is in the shop.
<b>U</b>	
<b>Unscheduled maintenance.</b>	Unscheduled Maintenance includes procedures, instructions, and standards for maintenance that occur on an unscheduled or unforeseen basis. A need for unscheduled maintenance may result from scheduled maintenance tasks; pilot reports; or unforeseen events, such as high-load events, hard landings, landings at a mass greater than the certificates



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limit, tail strikes, ground damage, lightning strikes, sandstorms, or an engine over-temperature. The operator should include in its manual instructions and standards for the accomplishment and recording of unscheduled maintenance, and detailed procedures for recording all types of unscheduled maintenance.

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## 0.13 SYSTEM OF AMENDMENT AND REVISION

### 0.13.1 Manual Ownership

The VP – Engineering and Maintenance is responsible for overseeing General Maintenance Manual (GMM) and serves as the Manual Owner. All revisions to the manual undergo a structured approval process. Technical publications personnel are responsible for generating amendments, which are then reviewed by the VP – Engineering and Maintenance and approved.

The VP – Engineering and Maintenance has the final authority to approve amendments to GMM. This emphasizes the manual owner's significance in ensuring document accuracy and compliance. Any amendments that require GACA approval or acceptance are submitted for review before they are published.

To ensure efficient dissemination of information, all approved amendments are shared electronically with manual holders. This aligns with Riyadh Air's commitment to transparent and accessible communication of operational updates.

This systematic approach reflects Riyadh Air's dedication to upholding rigorous standards in operational documentation.

### 0.13.2 Manual Holder Responsibility

Individual manual holders, especially management personnel who have company-issued portable electronic devices, must prioritize downloading the latest manual updates and revisions regularly. This proactive approach ensures that essential operational information remains up to date, aligning with our commitment to safety and regulatory compliance. Flight crew and operational personnel should schedule weekly updates to ensure they have the most recent procedural guidelines.

No management personnel within our operational framework may perform any assessment without access to a current copy of the relevant and applicable manuals. This policy highlights the importance of real-time information in creating a safe and efficient operational environment. Regular manual updates not only help conform to regulations but also enhance the overall effectiveness of our personnel in carrying out their responsibilities with precision and in accordance with industry best practices.



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## 0.13.3 Distribution List and Availability

GACAR § 121.151

At Riyadh Air, all Engineering and Maintenance personnel are provided with an updated electronic copy of this manual along with other relevant manuals. Subsequent updates are also given to the appropriate personnel, including assigned GACA representatives.

It is mandatory for the recipients of these manuals to keep them up to date with the provided changes and additions. All Engineering and Maintenance personnel must ensure that the relevant manuals provided to them are accessible when performing their assigned duties. This ensures that they can be easily accessed when required. Additionally, Riyadh Air maintains a complete copy of the required manuals at its principal base of operations.

### 0.13.3.1 ENGINEERING AND MAINTENANCE MANUAL DISTRIBUTION CONTROL

IOSA MNT 1.6.1

To exercise control over the production and distribution of the Engineering and Maintenance Manuals, all manuals are numbered and registered in the Technical Publication Library under the Document Management System (DCS). The Technical Publications Department maintains an up-to-date list of manual holders together with copy numbers, authorizations, and names.

Distribution and/or dissemination of the Engineering and Maintenance Manuals ensures all users are provided relevant documents and/or data on or before the effective date.

## 0.13.4 Publication Hierarchy

IOSA ORG 2.5.3

Refer to Corporate Policy Manual Section 0.13.4.



## 0.13.5 Manual Structure

Riyadh Air General Maintenance Manual (GMM) is divided into sections as follow:

1. Section 0 - Front Matter.
2. Section 1 - Maintenance Organization.
3. Section 2 - Airworthiness Responsibility.
4. Section 3 - Accomplishment And Approval of Maintenance and Alterations.
5. Section 4 - Maintenance and Inspection Program.
6. Section 5 - Required Inspection Item (RII).
7. Section 6 - Maintenance Recordkeeping System.
8. Section 7 - Contract Maintenance.
9. Section 8 - Personnel Training.
10. Section 9 - Continuing Analysis and Surveillance System (CASS).
11. Section 10 -Forms & Checklists.
12. Section 11 – Appendix.

## 0.13.6 Source of Amendments

Refer to CPM 0.13.6

Amendments to Riyadh Air's General Maintenance Manual (GMM) Manual come from various sources to ensure that the documents remain current, compliant, and reflective of industry best practices. The primary sources of amendments include:

### 1. Regulatory Authorities:

National (GACA) and international aviation regulatory bodies (FAA) may issue new regulations or revise existing ones. On receipt of a new or revised GACA regulation or Advisory Circular (AC), Riyadh Air will evaluate the change and, where necessary, promptly incorporate these changes into the operational documents to ensure compliance with legal requirements.

### 2. Aviation Industry Standards:

Organizations, such as the International Civil Aviation Organization (ICAO) and the International Air Transport Association (IATA), may release new standards and recommended practices (ISARPS), or procedures. When changes occur, Riyadh Air will review the revisions and, when required, adopt these standards to align with global best practices. Examples include changes to the ICAO Annexes or the IOSA Standards Manual (ISM) ISARPS.



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## 3. Internal Safety Reporting and Monitoring:

Riyadh Air actively encourages employees to report safety concerns or incidents through its internal reporting systems. The analysis of these reports may lead to amendments in operational documents to address identified safety issues and enhance safety protocols.

## 4. Operational Experience and Lessons Learned:

Riyadh Air's own operational experience and lessons learned from incidents or accidents may prompt the need for manual amendments. When required, changes are aimed at improving safety, efficiency, and the overall operational effectiveness based on Riyadh Air's unique experiences.

## 5. Technology Advancements:

Advancements in aviation technology may necessitate updates to this manual. New technologies, systems, or equipment may require specific procedures or considerations that need to be integrated into Riyadh Air's TTM.

## 6. Audit Findings and Recommendations:

Internal and external audits, including safety audits and regulatory inspections, may identify areas for improvement or non-compliance. Manual amendments are made in response to audit findings and recommendations to enhance operational processes and ensure adherence to applicable regulations and standards.

## 7. Change in Aircraft Fleet:

If Riyadh Air introduces new aircraft types or phases out existing ones, amendments to operational documents are necessary to account for the unique characteristics, systems, and procedures associated with the new or retiring aircraft.

## 8. Legal and Contractual Obligations:

Changes in laws or contractual obligations that impact operations may require updates to operational documents. This includes legal requirements related to crew rest, duty time limitations, or contractual agreements with third parties.

## 9. Emergency Procedures:

Insights gained from emergency response exercises or real-world emergency events may lead to amendments in emergency procedures to enhance Riyadh Air's ability to respond effectively to unforeseen situations.

## 10. Continuous Improvement Initiatives:

Riyadh Air engages in continuous improvement initiatives to enhance operational efficiency and safety. Feedback from operational personnel, data analysis, and performance reviews may trigger amendments aimed at refining processes and procedures.

All amendments are managed through a formal revision process outlined in Riyadh Air's documentation control procedures contained in the Corporate Policy Manual. This process ensures that changes are



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systematically reviewed, approved, communicated to relevant personnel, and incorporated into the operational documents in a controlled and traceable manner.

## 0.13.7 Referenced and Linked Documents

This General Maintenance Manual (GMM) is interconnected with the following Regulations and Manuals. When changes are made to any of the below Regulations or Manuals, Riyadh Air undertakes a review of the relevant changes for incorporations into GMM.

1. GACAR - Safety Regulations
2. GACAR Part-121
3. Minimum Equipment List (MEL)
4. Technical Training Manual
5. CASS Manual
6. Reliability Manual

## 0.13.8 Format and Documentation Control Requirements

IOSA MNT 1.6.1

IOSA ORG 2.5.1 / ORG 2.5.3

Refer to Corporate Policy Manual, Section 0.13.8

## 0.13.9 Error Reporting and Corrections and Suggestions for Improvement

All personnel are responsible for maintaining the accuracy and integrity of Riyadh Air's maintenance operations. If an employee comes across an error, notices any incorrect information in this manual or has a suggestion, they should report it to the VP – Engineering and Maintenance. The VP – Engineering and Maintenance will acknowledge receipt of the information and provide feedback to the concerned employee on their suggestion, the action taken to fix the error or update the information.



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# GENERAL MAINTENANCE MANUAL

1	MAINTENANCE ORGANIZATION
1.1	POLICY

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## 1 MAINTENANCE ORGANIZATION

### 1.1 POLICY

#### 1.1.1 Introduction

The General Maintenance Manual (GMM) is a vital document for Riyadh Air that operates and maintains aircraft. It serves as a comprehensive guide to safe and efficient maintenance practices, ensuring that all personnel involved understand their roles and responsibilities.

#### 1.1.2 Purpose

1. Outlines policies and procedures for aircraft maintenance at Riyadh Air.
2. Defines organizational structure, assigned duties, and responsibilities.
3. Ensures clear communication lines and compliance with separation requirements between Maintenance and Quality Inspection departments.

#### 1.1.3 Applicability

1. Mandatory for all Riyadh Air personnel and contracted service providers. Must be used in conjunction with:
  - a. Riyadh Air and GACA approved procedures.
  - b. Manufacturer's instructions and supplements.
  - c. Applicable GACAR (General Authority of Civil Aviation Regulations).

#### 1.1.4 Responsibilities

1. **VP Engineering and Maintenance (DOM):**
  - a. Responsible for keeping the General Maintenance Manual (GMM) up to date with any changes in policies, procedures, or applicable regulations.
2. **Technical Publications:**
  - a. Maintains the master copy of the GMM at the Riyadh Air main base.
  - b. Provides a copy to GACA-AS (General Authority of Civil Aviation – Safety & Aviation Standards).
  - c. Distributes copies as required according to the distribution list.



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3. No deviation from the policies and procedures set forth in this manual are authorized unless approved by VP Engineering and Maintenance (DOM).
4. The policies and procedures in this publication do not violate any GACAR or Operations Specifications.

### 1.1.5 Types of Publications

1. **Manufacturer's Publications:**
  - a. Essential manuals:
    - i. Aircraft, Engine, and Component Maintenance Manuals: Provide specific maintenance instructions for each relevant equipment type.
    - ii. Illustrated Parts Catalogue: Lists and identifies spare parts for ordering and reference.
    - iii. Structural Repair Manual: Outlines approved procedures for repairing structural damage to the aircraft.
    - iv. Maintenance Planning Document: Outlines all maintenance tasks and maintenance intervals applicable to a given aircraft.
  - b. Additional resources:
    - i. SBs and SLs: Service Bulletins and Service Letters are manufacturer-issued documents detailing updates, fixes, and modifications for specific issues or concerns.
2. **Riyadh Air Published Manuals:**
  - a. Operational documents:
    - i. General Maintenance Manual (GMM): Serves as the primary guide for Riyadh Air's specific maintenance practices and procedures.
    - ii. AMP Manual: Aircraft Maintenance Program Manual for Continued Airworthiness
  - b. Operation-specific manuals:
    - i. RVSM Maintenance Program Manual: Addresses procedures for Reduced Vertical Separation Minimum operations.
    - ii. ETOPS Maintenance Program Manual: Outlines requirements for Extended-range Twin-engine Operations Procedure (ETOPS), enabling long-distance flights with only two engines.



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- 1.2 ORGANISATION STRUCTURE

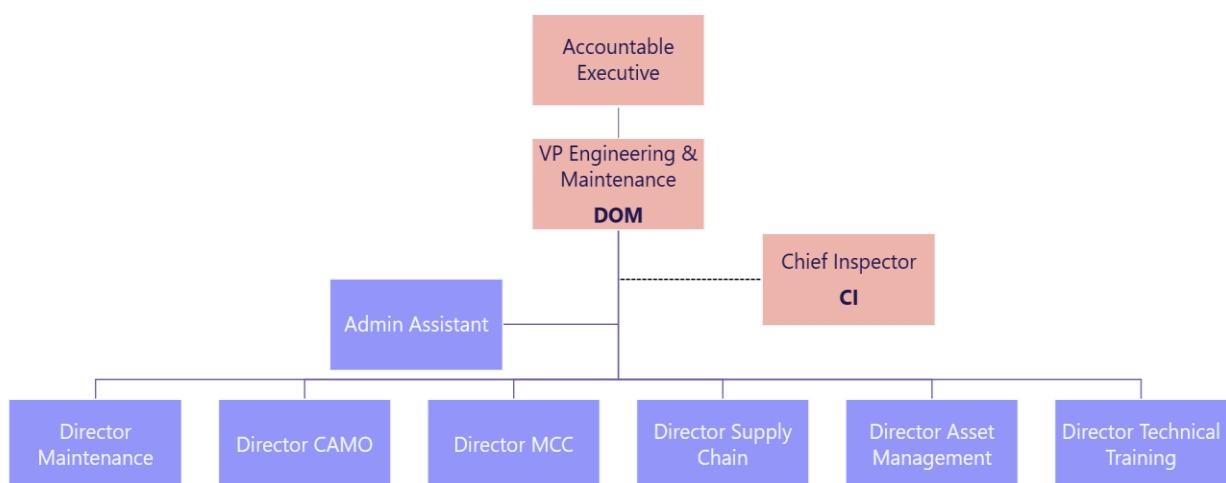
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## 1.2 ORGANISATION STRUCTURE

### 1.2.1 Engineering and Maintenance Organisation Chart

GACAR §§ 121.45 a

Engineering & Maintenance Organisation Structure



Postholder for GACA

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Figure 1 Organization Chart



## 1.3 DELEGATION OF RESPONSIBILITY

GACAR §§ 121.45,

### 1.3.1 Overview

While individuals may delegate responsibility and authority for task completion, ultimate accountability for tasks remains with the delegator.

### 1.3.2 Procedures For Delegation

Refer to CPM 1.2.6.2

1. Notification:
  - a. Postholders listed in the Table shall email all downline employees and their direct reporting line regarding their unavailability.
    - i. Emails shall specify:
      - 1) Period of unavailability.
      - 2) Delegated individual.
    - ii. Completion and signing of Form: RXI/OPS-MNT-MT131 prior to leave.
2. Absence Without Delegation:
  - a. If a postholder is unavailable without delegation, responsibilities and authorities transfer to the individual to whom the vacant position directly reports, as per the organizational chart.



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1.3 DELEGATION OF RESPONSIBILITY

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Engineering and Maintenance Management Position	May be Delegated to:
Vice President – Engineering and Maintenance (Post Holder - Director of Maintenance)	Director Maintenance
QA/Chief Inspector - Post Holder	Manager Quality Assurance/Inspection
Director Maintenance	Senior Manager Line Maintenance
Director CAMO	Senior Manager Technical Services
Director Supply Chain	Senior Manager Material & Supply Chain
Director MCC	Senior Manager Maintenance Control Center
Director Technical Training	Instructor Technical Training
Director Asset Management	Senior Manager Asset Management

Table 5 Delegation of Duties

### 1.3.3 Authority Delegation and Duty Assignment

The offices/persons listed below are in charge of communicating with regulatory bodies, OEMs, and other outside organizations that may be relevant to Riyadh Air Engineering and Maintenance s:

Riyadh Air Liaising Offices	Organization/Agency	Other External Agency
The VP-Engineering and Maintenance (DOM) and the Chief Inspector	GACA and other Aviation Regulatory, Manufacturer Tech Rep./TC Holder	Lessor's Auditor
The VP-Engineering and Maintenance (DOM), the Director of CAMO, the Technical Services Manager, and the Chief Inspector	Original Equipment Manufacturers (OEM) / TC Holder	Lessor / Aircraft Owner

Table 6 List of persons for communicating with outside agencies.



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## 1.4 DUTIES AND RESPONSIBILITIES

GACAR §§ 121.45, 121. app g II(l)

### 1.4.1 Vice President – Engineering and Maintenance

**Post Holder:** Director of Maintenance (DOM)

**Reports to:** Chief Operating Officer (Accountable Executive)

**Location:** Head Office

#### 1.4.1.1 Job Description

Overall responsible for the administration, control, and timely delivery of safe, airworthy aircraft that meet legal requirements of GACA and other CAA and applicable standards by implementing effective maintenance policies and procedures.

#### 1.4.1.2 Duties and Responsibilities

1. Has the accountability, authority, and responsibility to perform and address functions relevant to safety and quality in maintenance operations.
2. The VP Engineering and Maintenance (DOM) is accountable to the Accountable Executive for ensuring the day-to-day safety and quality in maintenance operations, and for ensuring aircraft airworthiness.
3. Has the authority to make policies, take appropriate decisions and allocate adequate resources to manage safety risks and security threats to maintenance operations, and make decisions regarding risk tolerability with respect to aircraft airworthiness.
4. Designated as the DOM for GACA as the Post Holder required for Riyadh Air's operations conducted under GACAR Part 121 in accordance with GACAR § 121.45.
5. Responsible for signing the OpSpecs Parts D and E, as per OpSpec A6.
6. Responsible for ensuring maintenance operations are conducted in accordance with applicable GACA, the AOC, the GMM, and the Maintenance Program.
7. Responsible for promoting Safety within the Maintenance department, and for monitoring the collective safety data, and safety trends.
8. Maintain a working relationship with vendors, aircraft service centers, GACA, and other relevant regulatory authorities.
9. Prepares and submits GMM revisions to Technical Publications.



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10. Ensures that all internal and third-party audit findings raised against Engineering and Maintenance are satisfactorily addressed on time by the concerned Department.
11. To direct the updating of all the necessary aircraft maintenance records and other documentation by Riyadh Air technical records and production planning and control.
12. To direct Engineering and Maintenance participation in the investigation of mechanical irregularities (i.e., system failures/ malfunctions, etc.) including reporting of aircraft serious incidents/accidents pertaining to Riyadh Air aircraft to Aviation Authorities.
13. To represent the airline in top management technical conferences/meetings on Engineering and Maintenance matters.
14. To direct the coordination with other departments in the Company, Aviation Authorities, equipment manufacturers and service providers.
15. Cooperate with the Training department in establishing requirements that the maintenance staff must meet, and in creating training courses.
16. To act as Chairman of the Reliability Control Board and Continued Analysis and Surveillance (CAS).
17. Prepare, present, and manage the new budget; overview to forecast the budget, supporting Riyadh Air strategic plan and organizational goals.



## 1.4.2 Director Maintenance

**Reports to:** VP-Engineering and Maintenance

**Location:** Head Office

### 1.4.2.1 Job Description

Directly responsible for the administration, control, and timely delivery of safe, airworthy aircraft that meet legal requirements of the GACA and other Aviation Authorities and applicable standards for safety and maintenance. He is also responsible for planning and reviewing all maintenance policies and procedures and oversees their implementation.

### 1.4.2.2 Duties and Responsibilities

The Director Maintenance is accountable to the VP-Engineering and Maintenance for ensuring the day-to-day safety and quality of the aircraft maintenance operations, and for ensuring aircraft airworthiness.

1. Has the authority to make policies, take appropriate decisions and allocate adequate resources to manage safety risks and security threats to the aircraft maintenance operations, and make decisions regarding risk tolerability with respect to aircraft airworthiness.
2. Responsible for ensuring maintenance operations are conducted in accordance with applicable GACA and other national authority's regulations, the AOC, the GMM, and the Maintenance Program.
3. Responsible for promoting Safety within the Aircraft Maintenance department, and for monitoring the collective safety data, and safety trends.
4. Implements a system of evaluation, justification, and control of Maintenance budget.
5. Ensure aircraft documents are properly recorded, accurate and correct; defects and discrepancies thoroughly investigated and rectified, and reports submitted.
6. Reviews and investigates recurring defects, the use of the MEL, deferred defects, Notice to Crew (NTC) and crew complaints.
7. To identify training needs and training of subordinates to perform their duties; keeps records of all training and experiences of Maintenance personnel.
8. Ensure adequate corrective actions from quality audit findings.
9. Ensure the aircraft maintenance records contain all the current information that relates to the respective aircraft.
10. Initiate reports pertaining to any occurrence or failure/malfunction or defect in maintenance as required by GACA.



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1.4	DUTIES AND RESPONSIBILITIES

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## 1.4.3 Director of CAMO

**Reports to:** VP-Engineering and Maintenance

**Location:** Head Office

### 1.4.3.1 Job Descriptions

Overall, in-charge of Technical Services and Technical Records Department.

### 1.4.3.2 Duties and Responsibilities

The Director of CAMO is accountable to the VP-Engineering and Maintenance for ensuring the day-to-day safety and quality of the Aircraft Engineering.

1. Has the authority to make policies, take appropriate decisions and allocate adequate resources to manage safety risks and security threats to the Aircraft Engineering, and make decisions regarding risk tolerability with respect to aircraft airworthiness.
2. Responsible for ensuring Aircraft Engineering is conducted in accordance with applicable GACA and other CAA regulations, the AOC, and the GMM.
3. Responsible for promoting Safety within the Aircraft Engineering Department, and for monitoring the collective safety data, and safety trends.
4. Ensures ADs, SBs, and other airworthiness requirements that affect the company's aircraft are scheduled for compliance in a timely manner.
5. Ensure coordination with contract maintenance facilities and customers to prepare maintenance checks and work input.
6. Ensure the renewal and administration of the C of A.
7. Ensures the timely submission of adequate corrective actions on internal and third-party audit findings against his department.
8. Maintain a system of Technical Records updating and records traceability.
9. Maintains archive for safe storage of aircraft and components maintenance records.
10. Ensure the aircraft maintenance records contain all the current information that relates to the respective aircraft.
11. Ensure adequate corrective actions from quality audit findings.
12. Release all relevant aircraft records and documents to QA, the Chief Inspector, Safety department and the VP-Engineering and Maintenance in the event of aircraft accident / incident to facilitate investigation.



## 1.4.4 Director of Supply Chain

**Reports to:** VP-Engineering and Maintenance

**Location:** Head Office

### 1.4.4.1 Job Description

Overall responsible for parts, materials, equipment, tools purchasing, storage, issue, shipping, handling, repair, and control efficiently and economically.

### 1.4.4.2 Duties and Responsibilities

The Director of Supply Chain is accountable to the VP-Engineering and Maintenance for ensuring the day-to-day safety and quality of the Supply Chain department.

1. Has the authority to make policies, take appropriate decisions and allocate adequate resources to manage safety risks and security threats to the Supply Chain Department.
2. Responsible for ensuring the Supply Chain Department is conducted in accordance with applicable GACA, the AOC, and the GMM.
3. Responsible for attending the SAG-Maintenance and proposing the Supply Chain Department's SPIs and SPTs.
4. Responsible for promoting Safety within the Supply Chain Department, and for monitoring the collective safety data, and safety trends.
5. Ensures the short and long-term forecast for spares and materials.
6. Ensure to purchase and manage, receipt and dispatch aircraft spares and commercial materials including stores inspection.
7. Establish a proper storage system including bonded, quarantine and flammable stores.
8. Identify training needs and to provide training for subordinates to perform their duties.
9. Ensures regular audits are conducted on the stores, stock holdings, stock status and value and to ensure deficiencies are promptly addressed and rectified.
10. Ensures the timely submission of adequate corrective actions on internal and third-party audit findings against his department.
11. Prepare and present the new budget and compare it with the current budget; overview to forecast the budget as per the Department's requirements.



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1.4	DUTIES AND RESPONSIBILITIES

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## 1.4.5 Chief Inspector

**Post Holder:** Chief Inspector

**Reports to:** Chief Operating Officer

**Location:** Head Office

### 1.4.5.1 Job Description

Accountable for the Required Inspection Program of Riyadh Air aircraft and the overall operation of the QC/QI System. Responsible for directing, planning and laying out the details of inspection standards, methods and procedures used in 121 operations in compliance with all applicable airworthiness regulations and manufacturer's specifications.

### 1.4.5.2 Duties and Responsibilities

The Chief Inspector is accountable to the Accountable Executive for ensuring the day-to-day quality of the Engineering and Maintenance.

1. Has the authority to make policies, take appropriate decisions and allocate adequate resources to manage safety risks to maintenance operations, and make decisions regarding risk tolerability with respect to aircraft airworthiness.
2. Designated as the Chief Inspector required for Riyadh Air operations conducted under GACAR Part 121 in accordance with GACAR § 121.45.
3. Responsible for the OpSpecs Parts D and E, as per OpSpec A6.
4. Responsible for controlling and monitoring the Maintenance department is conducted in accordance with applicable GACA regulations, the AOC, and the GMM.
5. Plans and organizes the resources of QI.
6. Assists in the investigation of mechanical irregularities or accidents pertaining to Riyadh Air, and associated equipment.
7. Ensures the qualifications of Riyadh Air maintenance and inspection personnel and contracted maintenance provider performing maintenance, inspection, repair, and servicing on Riyadh Air aircraft.
8. Ascertain that all inspections tasks performed on Riyadh Air aircraft are all completed before it is approved for return to service and that proper inspection and maintenance records, reports and forms required for its release are properly executed.
9. When designated by the Accountable Executive, act as the External Audit Liaison.
10. Coordinates with the Quality Director for the timely submission of regulatory required reports.



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## 1.4.6 Director of MCC

**Reports to:** VP-Engineering and Maintenance

**Location:** Head Office

### 1.4.6.1 Job Description

Implement control measures and outsource maintenance providers for the effective and timely accomplishment of maintenance activities on Riyadh Air fleet. Liaise between Riyadh Air Maintenance and other customers for any required maintenance services.

### 1.4.6.2 Duties and Responsibilities

The Director of MCC is accountable to the VP-Engineering and Maintenance for ensuring the day-to-day safety and quality of the MCC department.

1. Has the authority to make policies, take appropriate decisions and allocate adequate resources to manage safety risks and security threats to the MCC department, and make decisions regarding risk tolerability with respect to aircraft airworthiness.
2. Responsible for ensuring the MCC department is conducted in accordance with applicable GACA and other CAA regulations, the AOC, and the GMM.
3. Responsible for attending the SAG-Maintenance and proposing the MCC department's SPIs and SPTs.
4. Responsible for promoting Safety within the MCC department, and for monitoring the collective safety data, and safety trends.
5. Exercises direct control on all aircraft maintenance activities by coordinating the aircraft assignments, schedule commitments, completion, or deferment of maintenance checks and AOG.
6. Liaise with OCC, Performance/Reliability and to update technical delay records and statistics.
7. Decides on such matters as dispatching of aircraft on MEL, grounding of aircraft, aircraft substitution and engine changes.
8. May perform release to service or certifying function as determined by the Chief Inspector.
9. First contact with the flight crew and OCC in case of any request or technical problems.
10. Ensures that all MCC staff are well trained.
11. Ensures the timely submission of adequate corrective actions on internal and third-party audit findings against his department.



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## 1.4.7 Director of Asset Management

**Reports to:** VP-Engineering and Maintenance

**Location:** Head Office

### 1.4.7.1 Job Description

Provide technical support on leased aircraft including assistance on securing access pass, office, equipment, and tools.

### 1.4.7.2 Duties and Responsibilities

On behalf of Engineering and Maintenance to prepare all the required documents for the submission to the authority and coordinate between department in Riyadh Air for the entering of new or used aircraft into Riyadh Air fleet and into Riyadh Air Operations Specification

1. To monitor the aircraft on heavy maintenance check visit ensuring:
2. Aircraft maintenance checks are carried out in accordance with the agreed turnaround time.
3. Ensure the aircraft maintenance check is in accordance with the budget and reasonable and acceptable over and above cost.
4. Manage parts administration of incoming part and removal part by ensuring part is received on time and part is returned within the contractual time.
5. Ensure all the paperwork is properly closed and meets the airworthiness standard. The physical work carried out on the aircraft must be in compliance with the airworthiness standard and quality requirement of Riyadh Air.
6. To plan, coordinate, manage all the aircraft return to the owner of lessor in Riyadh Air
7. To plan for the aircraft redelivery in terms of preparation for aircraft's technical records, modification and repair requirement, work packages, and any relevant requirement stipulated in the redelivery requirement of the aircraft's lease agreement.
8. To coordinate with maintenance planning for the required dates for the grounding of the aircraft for the aircraft redelivery
9. To coordinate with the procurement department with regards to the Maintenance contract for the aircraft's redelivery MRO
10. To plan, coordinate and monitor the purchase and positioning of the required parts and material for the aircraft's redelivery.
11. To prepare all the status of the aircraft to be redelivered.
12. To be the liaison person between Riyadh Air and the lessor/aircraft owner.



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13. To verify and ensure all aircraft technical records satisfy the requirement of the aircraft return conditions.

## 1.4.8 Director Technical Training

Refer Technical Training Manual Section 1.3.1.

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1.5	ENGINEERING AND MAINTENANCE DEPARTMENT SYSTEM AND POLICIES

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## 1.5 ENGINEERING AND MAINTENANCE DEPARTMENT SYSTEM AND POLICIES

### 1.5.1 Maintenance Responsibility

The Engineering and Maintenance Department holds primary responsibility for ensuring aircraft airworthiness.

Maintain aircraft to the highest possible standards, ensuring they are safe, properly maintained, and ready for operation as scheduled.

Riyadh Air prioritizes aircraft safety and airworthiness through a structured maintenance program.

It adheres to comprehensive regulatory standards and works with approved partners to ensure the highest quality of maintenance practices.

It embraces transparency and accountability by welcoming audits and inspections from the regulatory authority.

### 1.5.2 Maintenance Performance

1. Internal Capabilities:
  - a. Riyadh Air performs maintenance tasks within its approved scope of work.
2. External Providers:
  - a. For maintenance tasks beyond its scope of approval or in stations where its own maintenance facility is not available, Riyadh Air contracts with GACA-approved maintenance organizations.

### 1.5.3 Compliance and Regulatory Oversight

1. All maintenance personnel must strictly follow:
  - a. GACAR (General Authority of Civil Aviation Regulations).
  - b. OpSpecs (Operations Specifications issued to Riyadh Air).
  - c. OEM manuals (manufacturer's instructions).
  - d. Policies and procedures within the General Maintenance Manual (GMM).
2. Any deviation from these regulations is strictly prohibited.



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### 1.5.4 Audits and Inspections

Riyadh Air grants GACA the authority to conduct audits and inspections to verify compliance with regulations whenever required by the regulator.

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1.6	MAINTENANCE FACILITIES

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## 1.6 MAINTENANCE FACILITIES

GACAR § 121.101 121.679

### 1.6.1 Purpose

To ensure Riyadh Air management and the contractual maintenance provider shall provide suitable facilities for the type of maintenance and inspection that will be performed on Riyadh Air aircraft and products.

To ensure adequate facilities, competent personnel, and necessary equipment for all maintenance and inspection tasks on Riyadh Air aircraft.

To guarantee facilities can accommodate the largest aircraft in the fleet for heavy checks, as well as unscheduled/emergency maintenance.

### 1.6.2 Responsibility

1. Director of Maintenance:
  - a. Oversees the control and quality of the Maintenance Facilities process.
  - b. Serves as the primary contact for any questions regarding the process.
  - c. Holds the authority to propose modifications to related policies.

### 1.6.3 Procedures

1. Maintenance Planning and MCC: Coordinates both scheduled and unscheduled maintenance activities.
2. Maintenance Performance:
  - a. It was conducted by Riyadh Air's own maintenance and inspection personnel.
  - b. May also involve contracted maintenance providers who are approved organizations.
3. Maintenance Records:
  - a. Completed records are received, stored, and made available for inspection at the main base in Riyadh.
  - b. Accessible to airworthiness regulatory authorities and lessor's auditors.



## 1.7 HEAD OFFICE

GACAR § 121.101 121.679

Houses crucial offices that support Riyadh Air's maintenance operations. Provides a central hub for efficient coordination and execution of diverse maintenance tasks.

### 1.7.1 Related Departments

1. Maintenance: Coordinates overall maintenance activities.
2. Maintenance Planning: Plans and schedules maintenance tasks for aircraft.
3. Technical Services: Handles technical expertise and advice for maintenance procedures.
4. Technical Records: Maintains documentation related to maintenance history and aircraft status.
5. Technical Library: Provides access to relevant technical manuals and resources.
6. MCC (Maintenance Control Center): Oversees real-time maintenance operations and aircraft readiness.
7. Quality Department: Ensures adherence to quality standards and regulatory requirements.

### 1.7.2 Facilities

1. Equipped with necessary office equipment: Supports efficient work functions within each department.
2. Proper ventilation and lighting: Provides a comfortable and productive work environment.
3. Emergency lighting: Ensures operational continuity in case of power outages.
4. Air conditioning: Maintains a pleasant working temperature.
5. Fire protection systems: Prioritizes safety and minimizes fire risks.
6. Portable extinguishers: Readily available for immediate fire response.



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1.7 HEAD OFFICE

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## 1.7.3 Head Office Layout

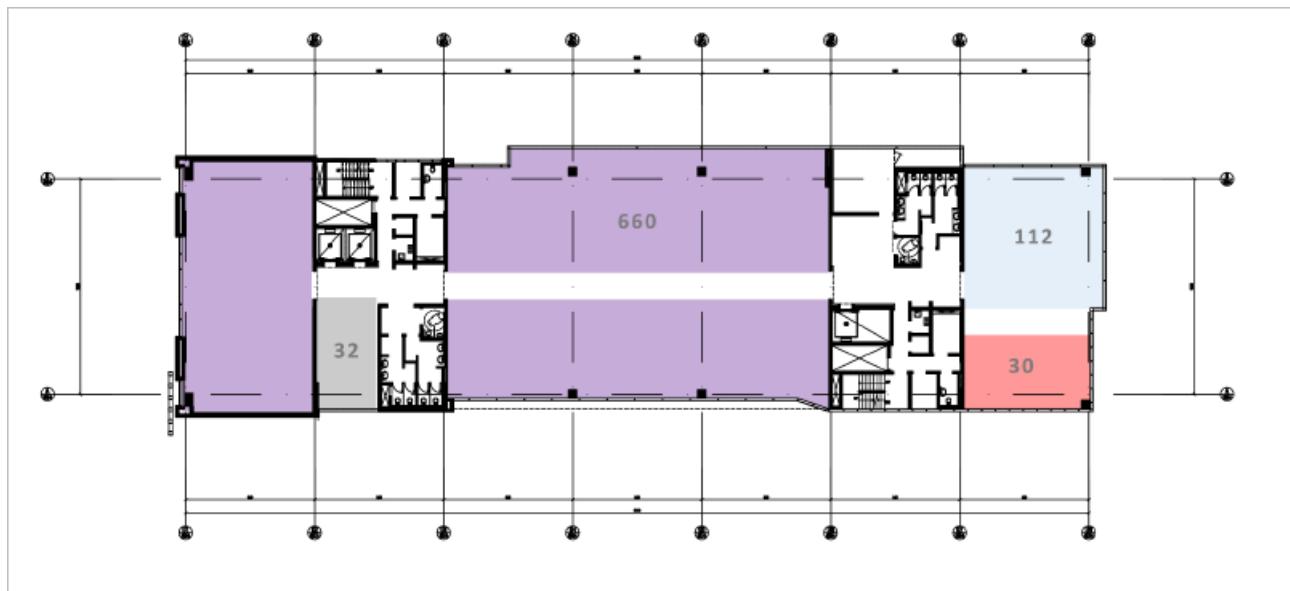


Figure 2 HO Layout

## 1.7.4 Location

Riyadh Air - Address (New HQ):

Building 3 & 4, King Khalid International Airport

13443, Riyadh – Kingdom of Saudi Arabia.



## 1.8 RECORDS STORAGE FACILITY

GACAR § 121.101 121.679

### 1.8.1 Description

A dedicated facility ensures document security and minimizes risk of damage or loss. Equipped with necessary amenities like climate control, fire safety, and security systems to preserve records. The combination of manual and digital recordkeeping systems provides redundancy and accessibility.

### 1.8.2 Amenities

1. Below are the amenities of the records storage facility:
  - a. Climate control: Centralized air-conditioning for maintaining optimal temperature and humidity.
  - b. Lighting: bright illumination.
  - c. Fire safety:
    - i. Portable fire extinguishers.
    - ii. Heat and smoke detectors with control panels.
  - d. Security:
    - i. 24/7 CCTV surveillance.
    - ii. Manned office with access control via fingerprint/access card.
  - e. Storage: Fireproof cabinets for secure document storage.
  - f. Technology:
    - i. 5G router/Wi-Fi due to lack of fiber optic availability.
    - ii. Manual inventory and AMOS (Aviation Maintenance and Operations System) for record keeping and backup.
2. Manpower: Shift coverage for document access and security.



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## 1.8.3 Facility Layout

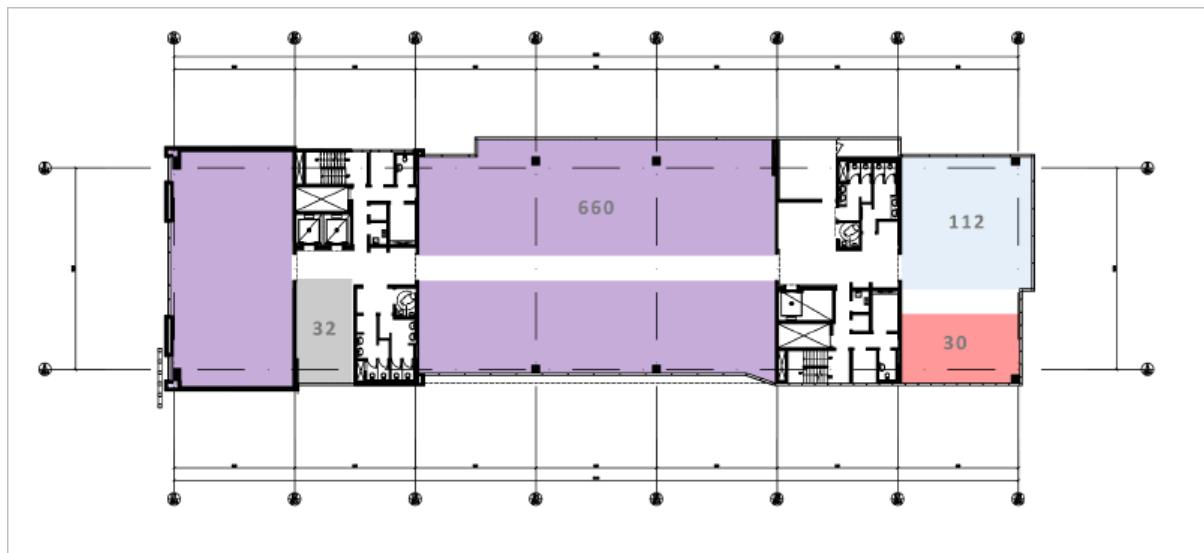


Figure 3 Facility Layout



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## 2 AIRWORTHINESS RESPONSIBILITY

### 2.1 AIRCRAFT AIRWORTHINESS REQUIREMENTS

GACAR § 121.659 121.663 121.651

#### 2.1.1 Purpose

Ensure independent verification that each aircraft meets all applicable aviation regulations. This means guaranteeing the aircraft is safe and fit to fly by adhering to established standards. Riyadh Air maintains an accurate document detailing airworthiness requirement for each aircraft. This document specifies relevant regulations, including: GACAR Part 121: Saudi Arabia's civil airworthiness regulations for air carriers. GACA Form 206 or other approved forms are utilized to perform inspections and document compliance with airworthiness requirements. This provides a structured and traceable record of the verification process.

#### 2.1.2 Responsibility

Maintaining the control and quality of our Aircraft Airworthiness Requirements process is a shared responsibility of the Chief Inspector and the VP Engineering and Maintenance (DOM).

#### 2.1.3 Authority

Technical Services, at Riyadh Air, holds the essential authority to propose modifications to the airworthiness requirements for the airline's aircraft. This expertise ensures continuous improvement in safety and compliance, allowing adjustments based on technical advancements, operational experience, and regulatory changes.

#### 2.1.4 Procedures

1. To guarantee that each aircraft listed on the OpSpecs adheres to all applicable aviation regulations, Technical Services is the designated department tasked with the creation and upkeep of a specific aircraft regulatory inspection document that documents the airworthiness requirements outlined in GACAR Part 121.
2. Before any aircraft can be officially listed on OpSpecs, it must undergo a mandatory inspection.
3. The inspection is conducted by Riyadh Air to confirm the aircraft's conformity with the following regulatory standards:
  - a. GACAR Part 121



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## 2 AIRWORTHINESS RESPONSIBILITY

### 2.1 AIRCRAFT AIRWORTHINESS REQUIREMENTS

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- b. Other applicable airworthiness requirements
  - c. The state of Type Certification
4. Upon completion, Riyadh Air distributes copies of the form as follows:
- a. A copy is retained by Riyadh Air for their records, and it becomes the official regulatory inspection document for that particular aircraft.
  - b. This process applies to both new aircraft being added to the OpSpecs and existing aircraft already on the list.
5. The inspection must be formally documented on a specific form. The form's completeness and accuracy are crucial for verification.
6. Line Maintenance is responsible for ensuring the presence and accessibility of following documents during daily checks and onboard each aircraft before flight.
- a. AOC - Certified True Copy
  - b. Operations Specification – Copy
  - c. Certificate of Registration (C of R) - Original or Certified True Copy
  - d. Certificate of Airworthiness (C of A) - Original or Certified True Copy
  - e. Aircraft Radio License - Original or Certified True Copy
  - f. Certificate of Insurance (COI) - Original or Copy
  - g. ATL
  - h. ACL

**Note:** MEL, AFM and WBM/Weighing Reports on Flight Crew EFB.

### 2.1.5 Controls

1. Quality Inspection (QI) is tasked with ensuring that clear and permanent placards are installed on the aircraft.
  - a. Placard requirements must adhere to:
    - i. The Maintenance Manual
    - ii. Applicable Supplemental Type Certificates (STCs)
    - iii. Airworthiness Directives (ADs)
    - iv. GACA (General Authority of Civil Aviation) requirements
2. Specific instructions for inspecting the installation and legibility of placards and markings will be incorporated into the C-Check level work package.



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## 2 AIRWORTHINESS RESPONSIBILITY

### 2.1 AIRCRAFT AIRWORTHINESS REQUIREMENTS

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- a. Production Planning and Control (PPC) will implement these tasks within the work package to guarantee compliance with the placard requirements.

#### 2.1.6 Process Measurement

1. Technical Services, Technical Records, and Quality Assurance (QA) work together to meticulously review each aircraft's records before the renewal of its Certificate of Airworthiness (C of A).
2. The verification includes:
  - a. All supplements mandated by Supplemental Type Certificates (STCs) are accurately documented.
  - b. Any major alterations to the aircraft are properly recorded.
  - c. Coordinate with Flight Operations to ensure the necessary updates are made to the flight operation's manual, ensuring alignment between maintenance records and operational procedures.
3. QA conducts a comprehensive annual review of the Aircraft Airworthiness Requirements process.



## 2.2 AIRFRAME AND POWERPLANT CERTIFICATION PRIVILEGES

GACAR §§ 121.655, 121.679

### 2.2.1 Purpose

1. Ensure only qualified individuals conduct maintenance tasks within their certification privileges.
2. Ensure Personnel performing maintenance, supervision, airworthiness releases, or required inspections on Riyadh Air aircraft must hold valid Airframe and Powerplant (A&P) or Avionics certifications.
3. Uphold airworthiness and safety standards.

### 2.2.2 Responsibility

Quality Inspection Departments (internal and contracted providers) responsible for maintaining current personnel licenses.

### 2.2.3 Authority

The VP Engineering and Maintenance (DOM) has the authority to make any changes in this policy.

### 2.2.4 Procedures

1. Maintenance Personnel Certificate Verification:
  - a. Riyadh Air supervising or performing maintenance and inspection for Riyadh Air aircraft personnel must have GACA certificates and company approvals with A&P or Avionics endorsements.
  - b. Chief Inspector oversees verification and record-keeping.
2. Contracted Maintenance Provider Certificate Verification:
  - a. Contracted personnel must have ICAO Annex 1 licenses with A&P (B1) or Avionics (B2) endorsements.
  - b. QA can request certificates during audits.
3. Documented program ensures certificate availability for verification.

### 2.2.5 Controls

The Chief Inspector ensures only Licensed Aircraft Maintenance Mechanics perform relevant tasks.



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2 AIRWORTHINESS RESPONSIBILITY  
2.2 AIRFRAME AND POWERPLANT CERTIFICATION PRIVILEGES

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## 2.2.6 Process Measurements

1. Quality Assurance (QA), in ensuring the proper functioning of the certification process, shall perform an audit periodically on Riyadh Air and contracted maintenance provider inspection personnel to ensure its accuracy.
2. Periodic QA audits to:
  - a. Verify personnel lists accuracy.
  - b. Confirm maintenance performed within certificate privileges.
  - c. Check license/certificate verification.

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## 2.3 MAINTENANCE CERTIFICATE REQUIREMENTS

GACAR § 121.655

### 2.3.1 Introduction

This policy outlines the importance and requirements of the maintenance certificate.

### 2.3.2 Purpose

To ensure maintenance performed on Riyadh Air aircraft must be directly overseen by properly certified, trained, and qualified personnel.

To ensure Personnel in charge must be physically available for consultation when non-certified personnel are involved.

To confirm Riyadh Air provides training and maintains records for personnel directly in charge of maintenance.

### 2.3.3 Responsibility and Authority

Director of Maintenance (or designee) is responsible for ensuring compliance with this policy.

### 2.3.4 Procedures

Specific maintenance positions requiring airman certificates are identified in General Maintenance Manual (GMM)

### 2.3.5 Controls

QA will monitor the compliance of this policy.

### 2.3.6 Process Measurements

QA conducts periodic audits of maintenance and inspection personnel to assess policy effectiveness.



## 2.4 RECENCY OF EXPERIENCE

### 2.4.1 Purpose

To ensure maintenance personnel meet the recency of experience requirements outlined in GACAR Part 66.

This policy aims to maintain the proficiency and currency of skills among maintenance technicians, directly contributing to safety and quality of aircraft maintenance.

### 2.4.2 Procedures

#### 1. Chief Inspector Verification:

- a. The Chief Inspector verifies that maintenance and inspection personnel meet the recency of experience requirements.
- b. This includes checking for:
  - i. Service under the appropriate certificate and rating.
  - ii. At least 6 months (within the preceding 24 months) of recent work experience using the certificate.
  - iii. Supervision during maintenance, repair, or alteration of aircraft.

### 2.4.3 Controls

#### 1. QA Review:

- a. Quality Assurance (QA) periodically reviews the employment summaries of personnel to ensure compliance.

#### 2. Summary Details:

- a. Employment summaries must include:
  - i. Employee name
  - ii. Years of aviation experience in specific positions
  - iii. Past and present employment history
  - iv. Certificates and licenses held
  - v. Aircraft qualifications
  - vi. Schools and special qualifications
  - vii. Total years of aircraft type experience



## 2.5 DISPLAY OF CERTIFICATE

### 2.5.1 Purpose

To ensure that maintenance personnel working on aircraft have the appropriate licenses readily available for inspection.

To comply with GACA (General Authority of Civil Aviation) regulations and potential requests from other regulatory authorities.

### 2.5.2 Procedures

1. Each maintenance technician must have their appropriate certificate displayed in the immediate area where they are performing maintenance tasks.
2. Technicians must present their certificate upon request by GACA or other authorized representatives.
3. Contracted maintenance providers must instruct their certificated technicians about this requirement through both initial and recurrent training.

### 2.5.3 Control

1. QA (Quality Assurance) is responsible for ensuring that audit checklists include items to verify compliance with this regulation.



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# GENERAL MAINTENANCE MANUAL

- 2 AIRWORTHINESS RESPONSIBILITY  
2.6 AIRWORTHINESS RELEASE OR AIRCRAFT TECHNICAL LOGBOOK ENTRY

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## 2.6 AIRWORTHINESS RELEASE OR AIRCRAFT TECHNICAL LOGBOOK ENTRY

GACAR § 121.655 121.679 121.687 121.1545 121.app g ii C (1), C (6)

### 2.6.1 Purpose

To define the purpose of the airworthiness release and logbook entry process at Riyadh Air: to guarantee that only qualified and authorized individuals return aircraft to service after maintenance, ensuring safe operation.

### 2.6.2 Policy

1. An Airworthiness Release or Aircraft Technical Logbook (ATL) entry is required following specific maintenance actions. These actions include:
  - a. Scheduled or unscheduled maintenance tasks
  - b. Daily Checks, Weekly Checks, A-Checks, and C-Checks (excluding Pre-Flight Checks)
  - c. RII tasks
  - d. Defect deferrals to MEL/CDL with maintenance actions
  - e. ETOPS PDSC (Pre-Departure Service Check) or ETOPS Significant Systems defect rectifications
  - f. Maintenance tasks on RVSM related systems
2. Authorized mechanics or engineers certify the following by signing the Certificate of Release to Service/Airworthiness Release block in the ATL after maintenance, preventive maintenance, or alterations:

**THE WORK PERFORMED IN THIS AIRCRAFT IS IN ACCORDANCE WITH THE CURRENT GMM, AMP, GACAR 121.1545, AND 121.663. REQUIREMENTS AND IS APPROVED FOR RETURN TO SERVICE."**

3. For A-Checks and C-Checks, the following statement is certified:

**"THE WORK PERFORMED IN THIS AIRCRAFT IS DONE IN ACCORDANCE WITH THE CURRENT GMM, AMP GACAR 121.1545, AND IS APPROVED FOR RETURN TO SERVICE."**



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## 2.6.3 Responsibility

Maintenance and Inspection personnel or the contracted maintenance provider: They are responsible for controlling and ensuring the quality of the Airworthiness Release and Aircraft Technical Logbook (ATL) entries. This includes verifying that the entries are accurate, complete, and comply with all relevant regulations and procedures.

## 2.6.4 Authority

The VP Engineering and Maintenance (DOM) is the individual with the authority to propose modifications to Riyadh Air's policies and procedures for the Airworthiness Release and ATL entry process.

## 2.6.5 Procedures

1. Mandatory Airworthiness Release:
  - a. An airworthiness release or appropriate logbook entry is required before operating an aircraft that has undergone maintenance, preventive maintenance, or alterations.
  - b. This is mandated by GACAR §§ 121.1545 / 43.11.
  - c. The signature of an authorized certified Mechanic/Engineer in the "Certificate of Release to Service" block constitutes the airworthiness release.
2. Certifications by Signing an Airworthiness Release means:
  - a. The work was performed in accordance with the GMM and aircraft manufacturer manuals.
  - b. All required inspection items were inspected by an authorized person who verified satisfactory completion.
  - c. No known conditions exist that would make the aircraft unairworthy.
  - d. The aircraft is in condition for safe operation with respect to the work performed.
  - e. Current instructions from the manufacturer's maintenance manuals were used and recorded.
3. Authorized Sign-Off:
  - a. Only authorized Certificated Mechanics/Engineers can sign airworthiness releases.
  - b. They must have received training on:
    - i. Airworthiness release requirements and procedures
    - ii. Relevant sections of GACAR Part 43, Part 66, Part 91, and Part 121



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- iii. Riyadh Air procedures for RIs and deferred maintenance
  - c. Training and authorization must be documented per the Technical Training Program and GMM respectively.
4. Certificated Repairman Scope:
- a. Certificated Repairmen (Avionics/Sheetmetal) can sign defect/corrective actions in the ATL and ACL, but only for work within their certification scope.

*Refer Appendix for Aircraft Technical Logbook and Aircraft Cabin Logbook format and filling instructions*

## 2.6.6 Qualifications for Airworthiness Release Authorization (RTS)

- 1. This section outlines the requirements individuals must meet to be granted Airworthiness Release Authorization (RTS) by the Chief Inspector or their designee.
  - a. Individuals must possess thorough knowledge and understanding of relevant regulations and data pertaining to aircraft maintenance. This includes:
    - i. GACAR § 121.1545: This regulation covers airworthiness release requirements for transport category aircraft.
    - ii. Applicable data for maintenance function: This refers to specific technical information and instructions relevant to the particular maintenance task being authorized.
    - iii. Training Completion: Individuals must successfully complete the appropriate training program outlined in the Technical Training Manual. This program should equip them with the necessary skills and knowledge to perform airworthiness release tasks effectively.
    - iv. Valid Mechanic License: Individuals must hold a valid mechanic license issued by the relevant authority, demonstrating their technical competence and qualifications to perform aircraft maintenance.
  - b. Assessment Board Interview: Individuals must successfully pass an interview conducted by an Assessment Board composed of the QI Manager (CI) and the respective Station Manager. This interview assesses the candidate's:
    - i. Integrity: Demonstrating ethical conduct and adherence to safety regulations.
    - ii. Knowledge: Verifying their understanding of relevant regulations and GMM procedures.
    - iii. Training: Evaluating the effectiveness of their training in applying theoretical knowledge to practical situations.



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- iv. Experience: Assessing their practical skills and experience in performing maintenance tasks relevant to RTS responsibilities.
- 2. Overall, these qualifications ensure that individuals granted RTS possess the necessary knowledge, skills, and experience to perform airworthiness releases safely and effectively, contributing to the safe operation of aircraft.

## 2.6.7 Authorization Procedure

- 1. Granting RTS Authority:
  - a. Individuals authorized to perform airworthiness releases are granted RTS authority through an official Letter of Authorization.
- 2. Approval and Issuance:
  - a. The Chief Inspector reviews and approves recommendation letters from Maintenance Managers for qualified individuals who meet the requirements and have completed relevant training as per the GMM and TTM respectively.
  - b. The Chief Inspector issues the Letter of Authorization, which is signed and acknowledged by the authorized individual.
  - c. A copy of the Letter of Authorization is retained in the individual's record file in the QI Office.
- 3. Validity and Revocation:
  - a. The Letter of Authorization remains valid unless:
    - i. Suspended or revoked by the Chief Inspector.
    - ii. The individual is no longer employed by or contracted to Riyadh Air.
    - iii. The individual is transferred or promoted to a position not requiring RTS or RII use.

## 2.6.8 Log Entries

- 1. Individuals granted Airworthiness Release (CRS/RTS) Authorization are responsible for ensuring the accurate and complete completion of Aircraft Technical Logbook (ATL) and Cabin Logbook entries.
- 2. They must ensure that all entries are made strictly in accordance with the established logbook fill-up procedures, without any deviations. This is crucial for maintaining accurate maintenance records and ensuring the aircraft's airworthiness.



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## 2.6.9 Certificate Entries

Individuals granted Airworthiness Release (CRS/RTS) Authorization must scrupulously ensure that all Certificate entries are completed strictly in accordance with the Riyadh Air release statement specified in GMM.

## 2.6.10 One-Time Airworthiness Authorization

1. When a contracted line maintenance provider lacks approval to release or perform necessary maintenance on a Riyadh Air aircraft, a One-Time Authorization (OTA) is issued, following these steps:
  - a. Coordination and Authorization:
    - i. Riyadh Air's MCC (Maintenance Control Center) coordinates with the provider's MCC to assign a certificated person to handle defect rectification and aircraft release.
    - ii. The certificated person's authorization and license are forwarded to Riyadh Air's QI/Chief Inspector for OTA issuance.
  - b. Preferred authorization:
    - i. Level 3 aircraft rating on Riyadh Air aircraft, issued under GACA Part 121 or Part 145.
    - ii. Alternative authorization: Level 3 aircraft rating on Riyadh Air aircraft, issued under local CAA (Part 121 or Part 145).
2. Maintenance and Release:
  - a. The contracted provider performs corrective actions and/or airworthiness release as per the approved OTA.
3. OTA Processing and Documentation:
  - a. QI processes the OTA and emails it to MCC-RUH.
  - b. MCC forwards the approved OTA to the Station Manager and/or MCC of the provider.
  - c. Certificated Mechanic/Engineer or Repairman (Avionics/Sheetmetal) performing the work:
    - i. Enters work description and manual references in the ATL (Aircraft Technical Logbook).
    - ii. Affixes OTA reference number, station, date, and AMO Certificate number in the CRS block.
    - iii. Signs off the CRS block (Certificated Mechanic/Engineer only).
4. Aircraft Cabin Defects:
  - a. Certificated Mechanic/Repairman enters work details in the ACL (Aircraft Cabin Logbook).



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- i. Affixes OTA reference number, station, date, and time in the sign-off block.
- b. For safety-related or airworthiness-related defects, the entry is transferred to the ATL and signed off.

## 2.6.11 Extension of Authorization

1. Legitimate circumstances preventing maintenance personnel from completing their required training on time (e.g., illness, emergency leave, lack of available training opportunities). The following steps shall be followed to extend the authorization.
  - a. The Maintenance Manager formally requests an extension for the specific training expiring, outlining the justifiable reasons and proposed extension period.
  - b. The Chief Inspector evaluates the request, considering the justification, evidence provided, and proposed extension duration.
  - c. If approved, the Chief Inspector extends the validity of the authorization for a period not exceeding 3 months.

## 2.6.12 Controls

1. QI maintains a dedicated log, form (FORM: RXI/OPS-MNT-MT119), to track and document all issued OTAs.
2. QI meticulously reviews all completed OTA entries in the ATL (Aircraft Technical Logbook) or ACL (Aircraft Cabin Logbook).
  - a. This review verifies that:
    - i. All required information is accurately recorded.
    - ii. Entries adhere to established procedures and standard.

## 2.6.13 Process Measurements

1. Internal Audits by QA:
  - a. QA conducts regular internal audits to verify that airworthiness release processes and procedures align with established policies.
  - b. Audits comprehensively examine:
    - i. Compliance with documentation requirements
    - ii. Accuracy of log entries
    - iii. Authorization procedures



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- iv. Personnel qualifications
  - v. Overall adherence to standards
2. Random Checks by Chief Inspector:
- a. The Chief Inspector independently performs random checks on various aspects of the airworthiness release process, including:
    - i. Issuance of airworthiness releases
    - ii. Accuracy of the list of authorized personnel
    - iii. Maintenance and inspection activities
    - iv. Logbook entries
    - v. Adherence to regulations and company policies.

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## 2.7 ISSUE AND CONTROL OF AIRCRAFT INSPECTOR STAMP

GACAR §§ 121.675 121.679

### 2.7.1 Purpose

The following requirements apply to the issuance and control of ink stamps used by delegates and aircraft inspectors. The use of stamps is a requirement and not optional. It is important that strict control be maintained over the issuance and use of each stamp. Only personnel with RII and RTS authorization granted by the Chief Inspector will be issued inspector's stamp.

### 2.7.2 Policy

1. Individual Responsibility:
  - a. Stamps serve as valid sign off on work cards/forms and are required for return to service approvals. Each stamp is assigned to a specific qualified inspector and must remain under their direct control at all times.
2. Loss or Damage:
  - a. Any loss, damage, or unsatisfactory condition of a stamp must be immediately reported to QI (Quality Inspection) for prompt action to prevent unauthorized use.
  - b. QI will issue a letter canceling the stamp's authority and provide a replacement stamp with a different number.
  - c. Stamps that are revoked, surrendered, or otherwise taken from an inspector will not be reissued or used for at least one year.
3. Each stamp must be under the direct control of the individual to whom the stamp is issued.

**Note:** Stamps are to be issued for any return to service approvals.

### 2.7.3 Procedures

1. Issuance:
  - a. Inspector stamps are issued by the Chief Inspector or their designee.
  - b. Recipients are qualified Delegated Quality Inspectors and Aircraft Inspectors.
2. Control:
  - a. QI (Quality Inspection) is responsible for:
    - i. Preventing duplicate stamp numbers.



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- ii. Maintaining accurate records of issued stamps, including employee name, authorization number, date of issuance, and stamp number.

3. Loss or Damage:

- a. Inspectors must immediately report lost or damaged stamps to QI using a Lost/Damaged Stamp Report (FORM: RXI/OPS-MNT-MT118).
- b. Pending a replacement stamp,
  - i. Inspectors may continue signing off tasks after validation by QI.
  - ii. Inspectors sign off by writing their current stamp number, signature or initials, and date.

4. Validity:

- a. Inspector stamps remain valid unless:
  - i. The authorization is revoked by the Chief Inspector.
  - ii. The stamp holder is no longer employed by Riyadh Air.
  - iii. The stamp holder is promoted or transferred to a position without RII requirements.

**Note:** When any of the aforementioned conditions are met, it is the Stamp Holder's responsibility to return the Inspector Stamp to QI.



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## 2.8 GACA REQUIRED REPORTS

### 2.8.1 GACA-AS Reporting

GACAR § 121. app g II o

#### 2.8.1.1 Purpose

The purpose of GACA Reporting process is to provide guidelines and procedures for written reports required by GACA.

#### 2.8.1.2 Responsibility

The VP Engineering and Maintenance (DOM) is responsible for the Aircraft Listing process and the Chief Inspector is responsible for GACA Reporting. Any questions regarding GACA Reporting and Aircraft Listing shall be directed to the respective responsible personnel.

#### 2.8.1.3 Authority

The VP Engineering and Maintenance (DOM) and the Chief Inspector are the individuals with the authority to propose modifications to Riyadh Air policies for GACA Reporting/Aircraft Listing process.

#### 2.8.1.4 Procedures

1. Quality Inspection (QI) to Quality Assurance (QA):
  - a. Service Difficulty Report (SDR): QI prepares and submits SDRs (FORM RXI/OPS-MNT-MT121) to QA. These reports likely document operational issues encountered with aircraft during flights or maintenance, aiding in identifying and addressing potential problems.
2. Maintenance Control Center (MCC) to QA:
  - a. MIS Monthly Summary Report: The Director MCC reviews and forwards the monthly summary report generated by MCC to QA. This report might provide an overview of maintenance activities, resource utilization, and key performance indicators within the department.
3. QA to GACA PMI (Project Management & Inspection) for OpSpec D85:
  - a. Aircraft Fleet Updates: When adding or removing aircraft from the fleet, QA notifies GACA PMI for the necessary amendments to the Operations Specifications Document (OpSpec D85). This ensures GACA is informed of changes in the fleet and can adjust oversight practices accordingly.
    - i. The notification letter includes specific details about the aircraft involved, such as make, model, registration, and serial number.



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4. QA to GACA for GACAR Requirements:
  - a. Report Submission: QA sends specific reports to GACA as required by GACAR (General Civil Aviation Regulations) sections 121.1553, 121.1557, and 121.1549.
    - i. QA ensures submission adheres to the procedures and deadlines specified in the General Maintenance Manual (GMM).
5. Engineering Department to Manufacturer:
  - a. Corrosion Reports: Per manufacturer specifications, the Engineering Department sends quarterly corrosion reports to the aircraft manufacturer. These reports likely document detected corrosion on the aircraft structure, enabling the manufacturer to monitor potential trends and provide maintenance recommendations.
6. Report Sharing with VP Engineering and Maintenance (DOM)
  - a. Copies of all these reports are provided to the DOM. This ensures the DOM has full access to relevant information concerning aircraft performance, maintenance activities, and potential issues, allowing them to make informed decisions regarding fleet management and safety.

**Note:** Proposed changes to OpSpecs should be submitted 90 days (but no less than 15 days) prior to effective date.

### 2.8.1.5 Control

1. Whenever the OpSpec D85 is amended to add or remove an aircraft, the VP Engineering and Maintenance (DOM) is responsible for reviewing and verifying the updated listing.
2. For any newly added aircraft, the VP Engineering and Maintenance (DOM) must confirm the accuracy of its make, model, series, registration, and serial number.
3. Additionally, the VP Engineering and Maintenance (DOM) should check the revision number and date of the amended OpSpec D85 to ensure they are up-to-date and reflect the latest changes made to the aircraft listing.

### 2.8.1.6 Process Measurements

1. The VP Engineering and Maintenance (DOM) must ensure OpSpec D85 is current and up to date. This involves incorporating any revisions, amendments, or updates related to aircraft listing, maintenance procedures, reporting requirements, or regulatory changes promptly.



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## 2.8.2 Service Difficulty Report

GACAR § 121.1553, 121. app g II G(K), (Q)

### 2.8.2.1 Purpose

Riyadh Air has a clear reporting policy for any event that could compromise the safety of an aircraft. They are obligated to report specific occurrences of failures, malfunctions, or defects to both GACA (General Authority of Civil Aviation). Additionally, the original equipment manufacturer (OEM) may also be notified depending on the specific situation. This obligation covers not only events discovered during safety analysis, but also any failure, malfunction, or defect encountered at any time that poses a potential threat to safe operation.

### 2.8.2.2 Responsibility

1. The Chief Inspector, or their designated representative, holds primary responsibility for overseeing the entire SDR process. This includes managing the system, ensuring its proper use, and maintaining the quality of submitted reports.
2. Based on the teardown analysis, the VP Engineering and Maintenance (DOM), in collaboration with Maintenance and CASS, will be responsible for determining appropriate corrective actions to address the identified issues and prevent their recurrence.
3. Any reportable event involving an aircraft, whether during flight or on the ground, is the responsibility of the Maintenance personnel present at the time to report to the Maintenance Control Center (MCC). If flight crew members discover any reportable, they are responsible for promptly reporting them to the MCC either by phone or email.
4. Maintenance personnel are responsible for submitting Aircraft Incident/Accident Report to MCC of reportable events. Identify and report all flight crew discovered reportable items via phone or email.

### 2.8.2.3 Authority

The Chief Inspector or his designee is the individual with the authority to manage Riyadh Air policies for the Service Difficulty Reporting process.

### 2.8.2.4 Procedures

1. GACAR § 121.1553 sets forth the requirement for air carriers to report the occurrence or detection of each failure, malfunction or defect listed below:
  - a. Fires during flight and whether the related fire-warning system functioned properly.
  - b. Fires during flight not protected by a related fire-warning system.



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- c. False fire warning during flight.
- d. An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components.
- e. An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight.
- f. Engine shutdown during flight because of flameout.
- g. Engine shutdown during flight when external damage to the engine or airplane structure occurs.
- h. Engine shutdown during flight due to foreign object ingestion or icing.
- i. Engine shutdown during flight of more than one engine.
- j. A propeller feathering system or ability of the system to control overspeed during flight.
- k. A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight.
- l. An unwanted landing gear extension or retraction, or an unwanted opening or closing of landing gear doors during flight.
- m. Brake system components that result in loss of brake actuating force when the airplane is in motion on the ground.
- n. Aircraft structure that requires major repair.
- o. Cracks, permanent deformation, or corrosion of aircraft structures, if more than the maximum acceptable to the manufacturer or the GACA.
- p. Aircraft components or systems that result in taking emergency actions during flight (except action to shut down an engine).
- q. Emergency evacuation systems or components including all exit doors, passenger emergency evacuation lighting systems, or evacuation equipment that are found defective, or that fail to perform the intended functions during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments.
- r. Any other failure, malfunction, or defect in an aircraft that occurs or is detected at any time if, in its opinion, that failure, malfunction, or defect has endangered or may endanger the safe operation of an aircraft used by it.
- s. If any serious issue like a malfunction, defect, or emergency occurs during flight, maintenance, or other designated activities, the pilot or responsible person must immediately report it to the MCC using the fastest available method like text, telex, fax, or email. This report will be categorized as a "Service Difficulty." The MCC will then forward



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the incident/accident report via email to Quality Inspection (QI). Additionally, a copy of the report will be submitted to the Safety Department.

- t. The original report should comprehensively document all crucial details pertaining to the incident. This includes specifying the affected unit(s), whether an emergency procedure was necessary, and the precise timeframe of the occurrence - be it during takeoff, climb, cruise, descent, approach, or landing. Once completed, the form must be forwarded to the Quality Assurance department for further evaluation.
- u. The Quality Inspection (QI) is responsible for preparing safety reports within the timeframe mandated by the regulatory body. Once completed and signed, the SDR/MOR form is forwarded to the Quality Assurance department (QA) for submission to the General Authority of Civil Aviation (GACA). Riyadh Air must submit these reports every 24 hours, covering the period from 9:00 am local time one day to 9:00 am local time the next. Reports due on Fridays, Saturdays, may be submitted on the following Sunday, and a report due on a holiday may be submitted on the next working day. Depending on the severity of the issue, the manufacturer/type certificate holder (TC holder) may also be informed. Technical Services is responsible for notifying the manufacturer/TC holder, either via email or through the manufacturer's online portal.
- v. Reports to GACA must not be delayed in anticipation of gathering all the details. If new information or findings emerge regarding the incident, including those from the manufacturer or other external agencies, they should be promptly submitted as an addendum to the initial report. This addendum should clearly reference the date, location, and report number of the original document.
- w. QI will assign a control number for the Service Difficulty Report (SDR) using SDR Tracking Log Form (FORM RXI/OPS-MNT-MT122).

#### 2.8.2.5 Controls

QI will maintain the Service Difficulty Report (FORM RXI/OPS-MNT-MT121) and Tracking Log Form or equivalent form in files.

#### 2.8.2.6 Process Measurements

QA will audit the Service Difficulty Report (SDR) process annually to ensure that the reports are submitted to GACA within 96 hours.



## 2.8.3 Service Difficulty Reports (Structural)

GACAR § 121.1553, 121.APP G II (Q)

### 2.8.3.1 Purpose

Riyadh Air has a responsibility to report specific occurrences related to aircraft safety, this includes reporting any failure, malfunction, or defect that is detected or occurs, regardless of timing, if it has posed or could potentially pose a threat to the safe operation of the aircraft. These reports are submitted to GACA for safety analysis, and if necessary, to the original equipment manufacturer (OEM) for further investigation. Essentially, Riyadh Air prioritizes safety by proactively reporting any issue that could compromise the aircraft's safe operation, ensuring timely analysis and potential corrective actions.

### 2.8.3.2 Responsibility

The responsibility for overseeing and ensuring the quality of the Service Difficulty Report (Structural) process rests solely with the Chief Inspector or their designated representative. Any questions or concerns regarding the Service Difficulty Report process, the Chief Inspector is the designated point of contact for clarification and guidance.

### 2.8.3.3 Authority

The Chief Inspector or his designee is the individual with the authority to propose modifications to the policies for the Service Difficulty Reports (Structural) process.

### 2.8.3.4 Procedures

GACA requires reporting the occurrence or detection of failure or defect related to:

1. Corrosion, cracks, or disbonding that requires replacement of the affected part, or
2. Corrosion, Cracks, or disbonding that requires rework or blend out because the corrosion, cracks, or disbonding exceeds the manufacturer's established allowable damage limits, or
3. Cracks, fractures, or disbonding in a composite structure that the equipment manufacturer has designated as a primary structure or a principal structure element, or
4. Repairs made in accordance with approved data not contained in manufacturer's maintenance manual.
5. Service Difficulty Reports and using SDR Form (FORM RXI/OPS-MNT-MT121).



## 2.8.4 MECHANICAL INTERRUPTION SUMMARY REPORT

GACAR § 121.1557

### 2.8.4.1 Purpose

To ensure timely reporting to the GACA, Riyadh Air must submit a monthly summary report by the 10th day of the following month. This report covers specific occurrences from the previous month, including:

1. Any flight interruptions
2. Unscheduled aircraft changes during flights
3. Unscheduled stops or diversions from planned routes
4. Unscheduled engine removals
5. These events must be caused by known or suspected mechanical difficulties or malfunctions, but don't fall under the mandatory reporting requirements of GACAR § 121.1553 (SDR).

### 2.8.4.2 Responsibility

1. The responsibility for overseeing and managing the Mechanical Interruption Summary (MIS) and Premature Engine Removal (PER) processes rests solely with the VP Engineering and Maintenance (DOM) and the Director Maintenance.
2. The Maintenance Control Center (MCC) is tasked with gathering data from two key reports: the Mechanical Interruption Summary Report (FORM RXI/OPS-MNT-MT102) and the Premature Engine Removal reporting form (FORM RXI/OPS-MNT-MT106). This information is then compiled into a single document called the Mechanical Interruption Summary Tracking Log (Form: RXI/OPS-MNT-MT132). This consolidated report must be submitted to the General Authority of Civil Aviation (GACA) by the 10th day of each month.
3. The Senior Manager of MCC and Outstations is responsible for reviewing and signing the monthly MIS report and Premature Engine Removal report prepared by MCC.
4. The VP Engineering and Maintenance (DOM) will approve the Monthly MIS report and Premature Engine Removal report after the Senior Manager of MCC and Outstations affix his initial to the reports prepared by MCC.

### 2.8.4.3 Authority

The Senior Manager of MCC and Outstations is the individual with the authority to manage the policies for the Mechanical Interruption Summary and Premature Engine Removal Report.



#### 2.8.4.4 Procedures

In the event of a maintenance defect that could potentially delay an aircraft's departure by more than 15 minutes, the person responsible for both the initial assessment and corrective action that returned the aircraft to service is obligated to inform the Maintenance Control Center (MCC).

1. MCC will record the following information below in the Mechanical Interruption Summary Report (FORM RXI/OPS-MNT-MT102):
  - a. A/C: Aircraft Number.
  - b. FLT: Flight Number.
  - c. Date: Date the delay occurred.
  - d. STA: Station location where the interruption occurred.
  - e. Min: Length of delay (in minutes).
  - f. ATA: Delays listed in sequence by ATA.
  - g. Reason: A brief description of the reported malfunction and corrective action.
  - h. Make/Model/Series of aircraft and engine.
2. In accordance with the GOM, the Pilot shall report any of the conditions described in the above paragraph to MCC as soon as possible after landing. MCC completing the Form will describe the type of interruption in the discrepancy block.
3. After the Form is completed, MCC cross checks the reported delays against Flight Operation System. MCC will prepare the MIS monthly summary report for approval by the VP Engineering and Maintenance (DOM).
4. Once the Senior Manager of MCC and Outstations reviews and signs (or initials) the MIS monthly summary report, the MCC department forwards it to the VP Engineering and Maintenance (DOM) for approval. Upon approval, the MCC then sends the report to the QA department for final submission to GACA. This submission to GACA must occur on or before the 10th day of each month.
5. MCC will compile the information from Mechanical Interruption Summary Report (FORM RXI/OPS-MNT-MT102) into the Mechanical Interruption Summary Tracking Log Form (FORM RXI/OPS-MNT-MT132).

#### 2.8.4.5 Controls

MCC will maintain an MIS Tracking Log Form (FORM RXI/OPS-MNT-MT132) in file. The form requires entry of the following information:

1. ATA number.



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2. Aircraft registration number.
3. The date delay occurred.
4. Duration of delay.
5. Result (enter result in the remark block).

#### 2.8.4.6 Process Measurements

1. Quality Department will assess the MIS Report process at the end of each month by reviewing the MIS Tracking Log Form (FORM RXI/OPS-MNT-MT132) and aircraft records to ensure:
  - a. The MIS reports are complete and accurate.
  - b. The MIS reports were submitted on time.
  - c. The MIS reports on accuracy of data fields.
  - d. That the MIS reports have been submitted for all eligible occurrences.
  - e. Annual review of MIS process shall also be audited.



## 2.9 MAINTENANCE DUTY TIME LIMITATIONS

GACAR § 121.1033

### 2.9.1 Policy

Riyadh Air prioritizes the safety of its operations and adheres to strict regulations regarding personnel fatigue. Therefore, it strictly prohibits any individual with direct operational control over Riyadh Air aircraft maintenance from exceeding established duty time limitations as outlined in GACAR § 121.1033.

### 2.9.2 Procedures

1. Riyadh Air Maintenance Personnel:
  - a. Maintenance and preventive maintenance personnel assigned to Riyadh Air aircraft must be granted a minimum of 24 consecutive hours off within any seven-day period, or its equivalent within a calendar month.
  - b. Line Station Managers are responsible for completing the Station Manpower monthly Schedule, ensuring compliance with this policy.
2. Contracted Maintenance Personnel:
  - a. External companies or individuals performing maintenance on Riyadh Air aircraft are subject to audits by the Quality Assurance (QA) department to verify compliance with GACAR § 121.1033.
  - b. All maintenance contracts with outsourced organizations must explicitly require adherence to this regulation, and they are obligated to provide relevant compliance records upon Riyadh Air's request.

### 2.9.3 Controls

Riyadh Air will have all Maintenance Managers or designees record duty time limitations on the Station Manpower Schedule (FORM RXI/OPS-MNT-MT125). The completed form will be submitted to the Director of Maintenance to monitor adherence to "Maintenance Duty Time Limitations."

### 2.9.4 Process Measurement

1. Every year, QA will review the "Maintenance Duty Time Limitations" process through an internal audit.
2. QA will document any issues found. Any discrepancies will be handled as stated in the QA Manual.



## 2.10 SAFETY

GACAR § 121.APP G II (E)

### 2.10.1 Operator Safety Policy

#### 2.10.1.1 Introduction

1. Riyadh Air utilizes the SMS program manual comprises of the policy and procedures that collectively explain how the Riyadh Air fulfill its obligations to achieve a robust Safety Management System (SMS), through hazard identification, risk management, event investigation, safety audits and flight data analysis, in compliance with GACAR requirements. It shall be the responsibility of the Director of Safety, the management of safety risks in maintenance operations.
2. The CSM manual includes comprehensive information and guidance on the use of the SMS systems, safety department-generated forms and documents, and a safety database for reporting, including confidential safety reporting. Copies of these forms/documents are contained in the CSM manual. The CSM Manual should be read in conjunction with the GMM.

**Note:** The CSM manual is for guidance only and does not take precedence over aircraft maintenance documents or approved technical manuals.

#### 2.10.1.2 Policy

It is the policy of Riyadh Air to maintain an effective safety program to provide reasonable and adequate facilities and arrangements for the preservation of job safety for all employees. The VP Engineering and Maintenance (DOM) shall ensure that all personnel required using personal protective equipment such as face masks and safety harnesses are provided with such equipment and have been trained on standard safety procedures.

#### 2.10.1.3 Responsibility

All personnel shall ensure that every effort will be made to promote safety in all phases of Riyadh Air operations. All personnel shall report any dangerous or unsafe information to their supervisors. Guards and safety devices shall be provided for the protection of the employees and must be in place when the machines and equipment are operated. Every equipment operator must be trained, qualified and authorized prior to its use. Suggestions for improvement of the safety program are welcome. Suggestions can be made and submitted to the responsible supervisor of the contracted service provider.

Additional protective equipment, such as paint masks, goggles, rubber or plastic gloves, rubber aprons, protective creams, etc., are available when needed. These items are normally stored and may be drawn



out from the tool crib. The Director of Line Maintenance shall advise the responsible Managers for this protective equipment when engaging in specific tasks requiring such items.

A well-kept and clean work area is conducive to accurate and precise work. Unorganized and dirty areas reflect careless work. Good Operator order and neatness greatly reduces the hazard of fire, accidents and personnel injuries. Each person is expected to see that his own workstation and equipment is kept clean and orderly. Performance must meet Riyadh Air standards, and inefficiencies and carelessness will not be tolerated.

## 2.10.2 Safety Management System

### 2.10.2.1 Introduction

Refer to CSM Manual.

Riyadh Air shall comply and implement the safety standards mandated by GACA or with the ICAO Safety Management System (SMS) requirement. The Operator policies and procedures are contained in the Safety Management Manual (as revised) which is handled by the Safety Department.

### 2.10.2.2 Policies

1. In compliance with GACA-AS requirements concerning the ICAO SMS safety standards, the following policies on maintenance activities shall supplement the CSM Manual and shall be adhered and implemented by all concerned Riyadh Air and contracted maintenance provider personnel.
2. The overall safety objective can be found in the CSM Manual (as revised).
3. Riyadh Air maintenance personnel shall implement the safety objectives in the maintenance of Riyadh Air aircraft, engines, and components (and coordinate with its maintenance providers, as applicable), in accordance with Riyadh Air overall safety objective in the SMS, and periodically adjust these objectives, as necessary.
4. Riyadh Air shall ensure that remedial actions necessary to mitigate the identified maintenance risks or hazards are implemented (in coordination with its maintenance providers, as applicable).
5. Riyadh Air shall ensure the continuous monitoring and assessment of the safety level achieved in relation to the established safety objectives, and makes the necessary corrective actions, as required. The continuing analysis and surveillance programs defined in the GMM shall be part of the monitoring tool of the safety objective.
6. Riyadh Air hazard and incident identification and reporting system (maintenance related) shall be handled in accordance with the GMM.
7. QA shall use the Maintenance Error Decision Aid (MEDA) or equivalent in the investigation to determine any aircraft maintenance errors involving Riyadh Air aircraft, engines and components.



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8. Riyadh Air shall ensure that all maintenance related contracts/agreements specify the safety standards to be met.
9. Riyadh Air shall only contract the maintenance of its aircraft, engines and components to a maintenance provider already implementing an approved SMS program based on ICAO Doc 9859 and shall likewise include the requirement in the contract/agreement. An SMS contact person shall be established for the contracted aircraft, engines and components maintenance services.
10. Riyadh Air shall not take disciplinary action against any personnel who discloses an incident or occurrence involving aircraft safety. This policy shall not apply to information received by Riyadh Air from a source other than the personnel, or which involves an illegal act or willful disregard of promulgated regulations or procedures.

#### 2.10.2.3 Procedures

1. Riyadh Air shall monitor the following safety objectives related to Engineering and Maintenance within the specified target by coordinating with Riyadh Air maintenance and inspection personnel or line station handling companies to ensure that the maintenance of its aircraft, engines and components are performed properly and timely in accordance with the GMM:
  - a. Reportable Events – Engineering and Maintenance through Reliability Engineer shall monitor that the following are acceptable safety levels of reportable events attributed to technical operation causes are not exceeded:
    - b. Engine In Flight Shut Down – 1 in every 100,000 flight hours.
    - c. Unplanned/Unscheduled Engine Removal – 1 in every 10,000 flight departures.
    - d. Air Turn Back/Diversion – 6 in every 10,000 flight departures.
    - e. Rejected Take Off – 2 in every 10,000 flight departures.

**Note:** The figures above shall be evaluated yearly based on in-service experience, industry and regulatory standards.

2. Audit Findings – QA shall monitor the audit findings do not exceed acceptable safety levels as follows:
  - a. GACA Audit Finding and Repeated Finding: not more than 88 within 12 months.
  - b. High-risk findings issued from audit and investigation:
    - i. Findings Issued to Engineering and Maintenance Department: not more than 11 within 12 months.
    - ii. Findings Issued to Heavy Maintenance contracted agencies: not more than 5 within 12 months.



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- iii. Findings Issued to Line Station Handling Companies: not more than 3 within 12 months.

**Note:** If safety levels for audit findings fall below acceptable levels, necessary corrective action shall be taken.

3. A target reduction of 5% per year shall be considered for item Procedures (1.) (a.) and (b.) for the above safety objectives. The VP Engineering and Maintenance (DOM) shall ensure the following to attain this goal:
  - a. Identify and make a list of safety hazards in their respective areas related to the above maintenance related Riyadh Air safety objectives, including the appropriate remedial actions.
  - b. Ensure that the remedial actions necessary to mitigate the identified maintenance related risks or hazards are implemented. An annual assessment shall be conducted by the Safety Department for items in Procedures (1.) (a.) and (b.) to validate the implementation of the SMS safety objective. The assessment shall be coordinated with the respective managers of Engineering and Maintenance.
4. Quality and Safety shall continuously monitor and make quarterly assessments of the safety level achieved in relation with the above safety objectives, and make the necessary corrective actions, in coordination with the appropriate maintenance provider/line station handling company, as applicable.
5. Riyadh Air shall follow the procedures of ERP and aircraft recovery manual if emergency response is required. The VP Engineering and Maintenance (DOM), the Chief Inspector, QA, the Director Maintenance, and the Director of CAMO, shall participate in the planning and implementation of the required emergency response.
6. QA shall maintain records of all SMS related incident documentation for a period of five years.
7. The Chief Inspector and QA shall communicate and coordinate SMS resolutions within the department to update departmental policies and procedures as necessary. Each applicable assigned process owner shall ensure that the departmental policies and procedures are updated.

#### 2.10.2.4 Responsibilities

1. Engineering and Maintenance and line station handling company shall comply with the policies and procedures stated herein.
2. Engineering and Maintenance shall ensure the proper and timely implementation of the policies and procedures stated herein.
3. Engineering and Maintenance shall ensure that each personnel has attended the SMS familiarization course. The necessity for a recurring/special SMS related training shall depend on



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the assessment of the safety indicators or introduction of new policies and procedures. The training may be classroom based, e-Learning or through reading and sign.

4. Each Safety Action Group shall conduct monthly review on the status of all hazards and incident and accident reports, audit reports, workplace injuries and rehabilitation programs, health and safety for rectification or resolution. Unresolved matters will be elevated to the Safety Department and if still unresolved they will be referred to higher management decision.

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## 2.10.3 Employee's Role In Workplace Safety

### 2.10.3.1 General

Employees must prioritize safety, both for themselves and others, by following all regulations, policies, and practices. Professional conduct is expected on duty, with no room for distractions or dangerous behavior. Pay close attention to safety signs and machinery instructions, and always consult the responsible supervisor if unsure. Remember, everyone's safety depends on it.

### 2.10.3.2 Smoking Control Measures

1. It lays out the basic principle of a workplace smoking ban with designated smoking areas provided by Riyadh Air. Here are some things to consider:
  - a. Smoking is generally prohibited in all areas except for designated smoking areas within Riyadh Air. This means that employees should not smoke in their workspaces, common areas, or any other non-designated location.
  - b. Even in designated areas, potential unsafe conditions may arise due to smoking. This emphasizes the importance of employee responsibility and awareness of their surroundings.
  - c. Encourages employees to refrain from smoking in any situation that could be considered hazardous. This could include areas with flammable materials, or other equipment that could pose a fire risk.

## 2.10.4 Fire Precautions

### 2.10.4.1 Hangar & Maintenance Facilities

1. When using highly flammable cleaning fluids in shops or maintenance areas, supervisors must ensure the storage and use are fire-safe. This involves considering factors like:
  - a. Vapor ignition sources: Keep the area away from welding zones or other sparks.
  - b. Temperature and ventilation: Maintain proper temperature and adequate ventilation to prevent vapor build-up.
  - c. Smoking and equipment: Enforce no-smoking rules and ensure electrical and fuel equipment are safe.
2. Formal rules and specialized equipment might be needed. Storing fluids in unsafe containers like glass jugs or open cans is prohibited. Minimize the amount of fluid stored based on production needs and good practices.



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3. Due to their high flammability, paints, dopes and varnishes require special storage and handling to prevent accidents. They must be kept in closed metal containers, away from heat sources and open flames. Ideally, store them in a separate building or a dedicated room within the hangar, equipped with fire doors and safe electrical systems. Remember, painting and doping should never be done near open flames, welding areas, electrical equipment, or grinding operations.
4. For safety, keep combustible waste rags like oil cloths in covered metal bins. Use separate, appropriate waste cans for paper and other general trash. This simple separation helps prevent fire hazards and keeps things tidy.
5. Very important safety rule for any workplace involving hazardous operations like welding, especially on sensitive equipment like aircraft. Here are some key points and potential implications:
  - a. Restricted areas: Open flames are confined to specific areas designed for such activities, minimizing the risk of accidental fires spreading.
  - b. Permission required: For high-risk activities like welding an aircraft, additional authorization from the supervisor ensures proper precautions are taken.
  - c. Standby fire equipment: The supervisor assesses the specific operation and determines the necessary firefighting equipment and procedures. This ensures appropriate resources are available in case of emergencies.
6. Beyond fire safety, the supervisor might determine additional safety measures based on the specific welding task and aircraft involved. This could include ventilation requirements, personnel protection, and material preparation.

#### 2.10.5 Towing Precautions

##### 2.10.5.1 Operator

Everyone involved in towing or pushing back an aircraft must understand its dimensions and clear the surrounding area of any obstacles before starting. The designated Headset Man leads the team and ensures everyone's safety during the operation.

Only individuals trained, qualified, and authorized by the Director Maintenance are permitted to tow any aircraft. This ensures that towing operations are handled by competent personnel, minimizing the risk of accidents and damage to equipment.



## 2.10.6 Safety for Engine Operations

### 2.10.6.1 Introduction

This section discusses the specific aspects of jet engine ground operation and delineates the preventive measures intended to mitigate any potential risks associated with jet engine noise and ground operation.

### 2.10.6.2 Requirements

1. These are crucial safety measures for personnel working around Riyadh Air's jet-powered aircraft.
2. Ear protection within 200 feet of an operating engine:
  - a. Jet engines generate extremely loud noise, exceeding safe decibel levels. Prolonged exposure can cause hearing damage, temporary or permanent, ringing in the ears (tinnitus), and even headaches.
  - b. Everyone within 200 feet of a running engine must wear approved ear protection. This includes earmuffs or earplugs that meet specific noise reduction ratings (NRR).
3. Following AMM safety procedures for engine inlet/exhaust areas:
  - a. The engine inlet and exhaust are danger zones during operation. The inlet can suck in objects with immense force, causing serious injury or death. The exhaust emits hot gases and debris that can burn or injure personnel.
4. When the engine is running, the AMM (Aircraft Maintenance Manual) outlines specific safety procedures for personnel in these areas, which shall be followed.

## 2.10.7 Eliminating Foreign Object Risks

### 2.10.7.1 Introduction

FOD is a major threat to aircraft safety and can cause significant damage. It's crucial for all contracted service providers, mechanics, and inspectors to be vigilant in preventing FOD incidents. Here are some key points to remember:

### 2.10.7.2 Requirements

1. Awareness:
  - a. Ensure all personnel understand the seriousness of FOD and the potential consequences. Regularly conduct training sessions and provide clear FOD prevention guidelines.



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- b. Recognize common FOD items like loose tools, loose concrete, rocks, hardware, screws, rags, catering supplies, be aware of the specific FOD risks associated with different maintenance tasks.
- 2. Strict accountability:
  - a. Implement a strict tool control system to track all tools used during maintenance. Conduct thorough tool counts before starting and finishing work in an area.
  - b. Account for all hardware and equipment used, such as nuts, bolts, washers, and safety pins. Double-check work areas and ensure nothing is left behind before closing up.
- 3. Safe work practices:
  - a. Establish designated areas for tool storage and equipment cleaning to minimize the risk of FOD contamination. Keep work areas clean and organized.
  - b. Handle tools and equipment carefully to avoid accidental dropping or scattering. Use closed containers or pouches for small parts.
  - c. Maintain clear communication between team members. Report any suspected FOD incidents immediately and follow established procedures for investigation and removal.

#### 2.10.8 Human Factor Principles

- 1. Riyadh Air ensures that every worker knows that safety is their responsibility, and they feel they are empowered to speak up and take other actions necessary to remedy unsafe conditions.
- 2. Riyadh Air encourages reporting of Maintenance Errors which are committed by an employee or observed by them.
- 3. Riyadh Air established a SAFETY CULTURE which is necessary to establish and maintain a high level of safety.
- 4. All employees are provided initial and recurrent training to emphasize the importance of HF principles and how they can influence their job performance in aviation maintenance environment.



## 2.11 AIRCRAFT LISTING

GACAR § 121. app g II O

### 2.11.1 Purpose

Riyadh Air conducting operations under GACAR Part 121 is required to maintain liability insurance coverage must list authorized aircraft under the OpSpec D85 prior to aircraft revenue flight.

### 2.11.2 Responsibility

The VP Engineering and Maintenance (DOM) is responsible for signing the OpSpec D85. QA is responsible for processing and submitting GACA requirements before the aircraft is added in the OpSpec D85.

### 2.11.3 Procedure

1. Before adding any aircraft, all requirements outlined in GACAR Part 21 Subpart F and GACA eBook Volume 6 must be met.
2. The Quality Assurance (QA) department is responsible for processing and submitting all necessary documents to GACA, as per the guidelines in GACA eBook Volume 6
3. Once GACA approves the aircraft and adds it to the OpSpec D85, the QA department provides a copy of the updated document to the VP Engineering and Maintenance (DOM).
4. The VP Engineering and Maintenance (DOM) reviews and acknowledges the updated OpSpec D85 by signing it. A copy of the signed document is then sent back to GACA for their records.

### 2.11.4 Control

1. The OpSpec D85 serves as the official document listing all authorized aircraft for Riyadh Air's operations.
2. During the amendment process of adding a new aircraft, the VP Engineering and Maintenance (DOM) plays a crucial role in verifying the accuracy of the information.
3. The VP Engineering and Maintenance (DOM) must specifically check the following details for the new aircraft:
  - a. Make: Manufacturer of the aircraft
  - b. Model: Specific model designation
  - c. Series: Variant or sub-model within the model



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- d. Registration: Unique identifier assigned by the national aviation authority)
- e. Serial Number: Manufacturer-assigned identification number for the aircraft
- 4. Ensure accuracy of information for all other Riyadh Air aircraft listed in the OpSpec D85.
- 5. Confirm that the document revision number and date reflect the addition of the new aircraft.

#### 2.11.5 Process Measurements

- 1. QA shall audit the following items relating to GACA-AS Reporting process.
- 2. Ensure the OpSpecs paragraph D85 is:
  - a. Current.
  - b. Contains all the required information.
  - c. Is published in the OpSpecs.
- 3. Ensure required reporting listed in this section has been accomplished by the VP Engineering and Maintenance (DOM).

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#### 3.1.1 Deferred Maintenance Procedures

GACAR § 121. App g II G, P

##### 3.1.1.1 Purpose

The Minimum Equipment List (MEL) and Configuration Deviation List (CDL) allow airlines to temporarily operate aircraft with certain equipment inoperable or missing under specific conditions. These lists ensure safety is not compromised while permitting continued revenue flights. Riyadh Air can defer specific maintenance for listed aircraft, using procedures outlined in OpSpec D095. Deferred items fall into two categories: placard-required and placard-not-required. Flight crews and maintenance personnel must ensure proper application of MEL/CDL items before each flight.

##### 3.1.1.2 Responsibility

1. The Director of Flight Operations is the boss of the MEL/CDL program, guaranteeing airworthy, compliant aircraft (per GACAR 121.517) that exceed the minimums set by the MMEL, OpSpecs, AFM, CMPs, and ADs. They must be properly trained for this crucial role.
2. The Director of Flight Operations oversees the entire MEL/CDL program, guaranteeing its smooth development, integration, and communication to relevant personnel. This includes comprehensive training for crew members and maintenance providers, delivered through existing training programs. Initial and recurrent training with assessments is implemented to ensure program effectiveness. Regular monitoring by the Director, Chief Inspector, and VP Engineering and Maintenance (DOM) safeguards the quality and impact of these crucial training sessions.
3. Any changes to the MEL/CDL program require careful assessment due to its connection with the Maintenance Department. Before implementing updates, the VP Engineering and Maintenance (DOM), Chief Inspector, Director Maintenance, MCC, Director of CAMO and Director Flight Operations must collaborate to evaluate the impact on procedures and controls and the proposed changes and determine the airworthiness. Importantly, the MEL/CDL must never be less restrictive than the MMEL.



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## 3.1.1.3 Authority

The Director of Flight Operations can propose MEL/CDL policy revisions and delegate program authority, but not overall responsibility, to a trained and directly supervised individual. This delegated authority and the individual's training qualifications must be readily accessible for GACA inspection.

When a revised MMEL is received, the corresponding MEL will be promptly reviewed and updated within a maximum of 60 days.

## 3.1.1.4 Procedures

1. The preamble establishes key aviation safety policies for flight operations. Pilots must follow their specific Minimum Equipment List (MEL), while Maintenance Control Center (MCC) releases airworthy planes with complete equipment. MCC and pilots collaborate to assess enroute weather and conditions, verifying they don't impact minimum equipment requirements.
2. Tracking Items are essentially open discrepancies on an aircraft that, if managed properly, allow for continued operation until proper repairs can be made. These discrepancies can arise from various sources like inspections, crew reports, or borrowed parts. Mechanics deferring such discrepancies must ensure they don't compromise the aircraft's airworthiness, requiring concurrence from Maintenance Control Center.
3. In case of any uncertainty regarding a discrepancy, always seek clarification before deferring the item. Consult the VP Engineering and Maintenance (DOM) first, and if necessary, escalate to the Chief Inspector for a final decision.

## 3.1.1.5 Control

1. To ensure safe operation, all flights must document any outstanding MEL/CDL issues in the aircraft's logbook. Both the pilot-in-command (PIC) and the Operations Control Center (OCC) must approve the dispatch release, confirming the flight's safe execution. The PIC holds the final authority and can decline any flight if they have safety concerns.
2. Information Used for Dispatch Release:
  - a. Minimum Equipment List (MEL): This list defines the minimum equipment required for safe operation under normal conditions.
3. Tracking Item: This identifies the deferred item and associated limitations, procedures, and completion requirements.
4. Weather: Terminal and enroute forecasts and current reports for all relevant airports.
5. MEL/CDL Compliance: Ensures the inoperative equipment and associated limitations fall within allowable MEL/CDL categories.
6. Responsibilities:



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- a. Operations Control Center (OCC): Utilizes the above information to assess whether conditions permit operation with the deferred item.
  - b. Pilot in Command (PIC): Verifies proper documentation of the Tracking Item in the Aircraft Technical Log (ATL) and ensures MEL/CDL compliance before release.
  - c. VP Engineering and Maintenance (DOM): Monitors Tracking Item control logs to ensure timely action and completion within allowed timeframes.
7. The MEL allows limited operation with inoperative equipment under specific conditions and limitations.
  8. Dispatch decisions must consider weather, limitations, and procedures associated with the deferred item.
  9. All equipment not listed on the MEL must be functional for airworthiness and regulations.

## 3.1.1.6 Process Measurement

1. While the MEL allows for individual equipment failures, it's crucial to use good judgment when facing multiple discrepancies. Even if each issue falls within the MEL's guidelines, consider the potential for secondary hazards arising from their combined effects. Ensure appropriate action is taken to mitigate any such risks before taking flight.
2. Minor issues with an aircraft don't necessarily require immediate repairs if they don't compromise flight safety. Before deferring any discrepancy, mechanics must consult the aircraft's Minimum Equipment List (MEL) or Configuration Deviation List (CDL) to ensure the deferred item is on the approved list.
3. Deferring an item during inspection or maintenance is only permitted if it doesn't impact airworthiness or if replacement parts are unavailable. The VP Engineering and Maintenance (DOM) must judge the safety of carrying the issue over until parts arrive. Any component requiring MEL placards due to the deferral will be labelled clearly in the cockpit.
4. The Quality Assurance (QA) will be responsible for reviewing the MCC Tracking Item List to ensure its accuracy and adherence to the Minimum Equipment List (MEL). This audit will involve verifying that all necessary items are listed, their details are correct, and they comply with the specified MEL requirements.



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## 3.1.2 Shift Change or Work Interruption Record

GACAR 121 APP G // C (6,9)

### 3.1.2.1 Purpose

To avoid missed tasks, ensure all inspections, maintenance, and alterations are completed before releasing the aircraft. This includes unfinished work from shift changes or interruptions.

### 3.1.2.2 Procedure

1. To ensure clear and efficient communication between technicians/Engineers and inspectors during multi-shift or team changes on aircraft maintenance and inspection tasks.
2. Applicability:
  - a. Maintenance or inspection involves multiple shifts.
  - b. Technicians or inspectors change during task execution.
3. Shift Turnover Log (Form: RXI/OPS-MNT-MT115):
  - a. Contains loose-leaf.
  - b. Retained for 30 days and/or until all work in progress is cleared.
4. Information recorded:
  - a. All incomplete work not adequately documented on maintenance forms.
  - b. Specific details of partially completed jobs, referencing the relevant work card item.
  - c. Any other information critical for task continuity.
  - d. Status of all Required Inspection Items
5. Responsibility:
  - a. Outgoing shift supervisor:
    - i. Ensure sufficient information is documented for smooth handoff.
    - ii. Sign and date entries in the Shift Turnover Log Form: RXI/OPS-MNT-MT115.
  - b. Incoming shift technician/inspector:
    - i. Review Shift Turnover Log entries before proceeding.
6. General Guidelines:
  - a. Use clear and concise language.
  - b. Prioritize critical information.
  - c. Date and sign all entries.



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## 3.1.3 Managing Non-Routine Discrepancies During Aircraft Maintenance

GACAR 121.app g ii c (1), G

Refer to MEL and NEF Manuals

### 3.1.3.1 Introduction

During scheduled aircraft inspections and maintenance checks, unexpected issues (non-routine discrepancies) may arise. This document outlines the procedures for addressing these discrepancies, ensuring timely rectification, and maintaining compliance with regulations and safety standards or other acceptable data.

### 3.1.3.2 Scope

1. This document covers following scenarios:
  - a. Rectification and control of Non-Routine Discrepancies excluding those occurring during flight time.
    - i. Scheduled and unscheduled maintenance issues
    - ii. Mechanical irregularities
    - iii. Passenger amenities or entertainment system deficiencies
  - b. Aircraft Systems Irregularities During Flight Time:
    - i. Includes operational failures, malfunctions, abnormal flight operations, hard landings covered under the GMM.
    - ii. Includes BSI requirements due to high engine EGT/exceedance or APU High EGT
  - c. Deferral of Discrepancy Rectification:
    - i. Under specific conditions, rectification of malfunctioning systems, components, mechanical irregularities, or passenger amenities deficiencies may be deferred if it does not affect airworthiness or safety.
    - ii. Procedures for deferral are outlined to ensure compliance with GACA regulations, safety standards, aircraft reliability.
  - d. Issuing Non-Routine Tasks:
    - i. A non-routine task shall be issued or created using the Work Order (AMOS) in the following scenarios:



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- 1) Work Not Included in Routine Work Package: Supplementing routine maintenance requirements, such as unexpected access openings not covered by a routine card. Handling and control shall be the same as for regular non-routine discrepancies.
- 2) Unacceptable Maintenance Performance: When in-process inspection during an aircraft maintenance check reveals unacceptable performance of routine or non-routine maintenance, based on defined, approved standards or acceptable data.

**Note:** Non-Routine log sheets will be used for creating non-routine tasks during A-Checks.

### 3.1.3.3 Procedure

1. Rectify all workable non-routines before maintenance release. Deferral of non-routine discrepancies may be allowed under specific conditions:
  - a. Does not compromise safety or airworthiness.
  - b. Deferral is permitted by approved data.
2. Include copies of all generated non-routines, whether rectified or deferred, in the work package of each completed service or letter check.
3. Workable non-routines:
  - a. Use a Work Order when discrepancies are expected to be rectified before maintenance release.
  - b. Rectify irregularities in accordance with regulations, approved technical data, and standard maintenance practices.
  - c. Only authorized personnel rated on the aircraft can generate non-routine write-ups.
4. Non-Workable non-routines:
  - a. Found during line maintenance (Below Heavy Check)
    - i. Discrepancies that cannot be rectified before maintenance release shall be categorized as MEL, non-MEL, or NEF.
    - ii. Document these discrepancies in the ATL/ACL, as appropriate, and enter them in the HIL Form.
    - iii. Record the date of defect identification in the ATL or ACL for flight crew awareness.
    - iv. Document other observed discrepancies in the non-routine log sheet.
  - b. Found during Heavy maintenance (Hangar Visit)

**Note:** Aircraft MEL is typically used only during line operations.



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- i. Authorized maintenance personnel rated on the aircraft may defer rectification (carry forward) under the following conditions:
  - 1) Exert all efforts to resolve discrepancies before aircraft release.
  - 2) VP Engineering and Maintenance (DOM) or designee approval is required for any remaining deferred items, regardless of categorization (MEL, CDL, Non-MEL, NEF).
  - 3) Discrepancy does not jeopardize airworthiness or passenger safety and evaluation may involve visual inspection, testing using aircraft systems or test equipment, or both.
  - 4) Discrepancy is unrelated to other inoperative systems or components and does not render the aircraft unsafe if deferred.
  - 5) If applicable, deferral is covered by approval from the aircraft/engine manufacturer or relevant maintenance manuals with engineering justification.
- 5. Immediately request engineering assistance if rectification procedures are unavailable in standard references and deferral is permitted by approved data.
- 6. Riyadh Air Maintenance prioritizes prompt repair of deferred defects. It aims to rectify defects as soon as required resources (parts, tools, drawings, etc.) become available. Specific time limits are set to ensure timely repairs.
  - a. NON-MEL Categorized / Hold Item –

These defects are deferred due to various factors, including part shortages, troubleshooting needs, staffing limitations, grounding time restrictions, verification processes, engineering evaluations, and accessibility challenges etc. The company has established specific repair limits for these defects, outlined in the table below. The repair timeframes start after the discrepancy is documented on either the ATL (Aircraft Technical Log) or ACL (Aircraft Cabin Log).

TYPES OF DEFECTS	REPAIR LIMIT
NEF defects listed in NEF Deferral List.	Category D (120 days)
NEF defects not listed in NEF Deferral List.	Category D (120 days)
Damage that is within limit but requires temporary filling and/or used of Hi-Speed tape as specified in SRM	Must be entered in HIL and update Dent and Damage Mapping Record (Form RXI/OPS-MNT-MT116) Repair interval IAW specified limit in SRM.
Dents that require temporary or permanent repair.	

Table 7 NEF Defects Repair Limit

- b. However, unforeseen circumstances can arise during Non-Essential Furnishing (NEF) repairs, potentially exceeding the standard Category D repair interval of 120 days. To



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formally address extended repair timelines, Riyadh Air submits a comprehensive extension request to GACA. This allows GACA to thoroughly assess the situation and make an informed decision. MCC Shall raise NEF Extension Form (FORM: RXI/OPS-MNT-MT103)

- c. In order to prevent unplanned aircraft grounding, Maintenance Planning and MCC must closely monitor non-MEL items 3 and 4 of the above table.
- d. NEF Items listed in the NEF Deferral List shall be deferred in accordance with the specified NEF reference.
- e. When an NEF (Non-Essential Furnishing) item isn't found on the standard deferral list, Riyadh Air follows the flowchart, located [GMM 3.5.3.7](#) to determine if deferral is possible, ensuring both safety and operational efficiency.
  - i. The first step is to verify if the item can be deferred under the Minimum Equipment List (MEL) or Configuration Deviation List (CDL).
  - ii. If deferral isn't allowed under MEL/CDL, a thorough evaluation ensures that the item's condition won't compromise safe aircraft operation.
  - iii. If these criteria are met, deferral under the NEF Program becomes possible, enabling aircraft dispatch even with the item pending repair.
- f. Newly identified and deferred NEF items are promptly reported to GACA. Within 60 days of a defect deferral, Riyadh Air diligently revises the NEF Deferral List to reflect the updated status. This ensures the list remains current and accurately represents the aircraft's condition.
- g. Any non-routine items that affect the appearance of the flight deck or cabin, or any issues that are not critical for safety or functionality but may impact passenger comfort, should be resolved according to the table above.
- h. For traceability, the entire work package must include the summary sheet of all non-routine discrepancies. A copy of the summary sheet, including the dates of expiration and the order and availability of parts, must be sent by Maintenance Planning to MCC.
- i. MCC shall schedule in Pre-Arm, all open deferred defects with available parts for corrective action.
- j. Maintenance Planning will work with MCC to schedule workable deferred defects (HIL) for corrective action when components become available for defects with FH or FC repair interval.



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## 3.1.3.4 Responsibilities

1. MCC Department (Maintenance Control Center):
  - a. Keeping a close eye on defects categorized under A-B-C-D MEL, CDL, Non-MEL, or NEF.
  - b. Requisitioning parts, updating order status, and ensuring timely availability for repairs.
  - c. Keeping track of and updating repair intervals for deferred defects.
  - d. Scheduling repair tasks as soon as parts arrive.
2. Maintenance Planning Department:
  - a. Tracking defects deferred in accordance with AMM, SRM limitations, FH/FC.
  - b. Handling parts requisition, order updates, and availability for repairs.
  - c. Ensuring repair intervals for deferred defects are accurately maintained.
  - d. Scheduling repair tasks based on parts availability.
3. AOG Desk (Aircraft on Ground Desk):
  - a. Expediting parts orders
4. Guaranteeing efficient and timely processing of parts orders to meet aircraft repair interval requirements.



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## 3.1.4 Major / Minor Repairs and Alterations

GACAR §§ 121.1549 121.app g ii C (1), G(l)

### 3.1.4.1 Purpose

This document outlines procedures for ensuring Riyadh Air aircraft can safely return to service after major repairs or alterations. It establishes guidelines for classifying repairs and alterations, guaranteeing that work adheres to GACA, FAA, EASA Part 21, or STC Holder approved technical data (including manufacturer's data). Additionally, it mandates timely creation and distribution of required reports, and emphasizes the importance of maintaining relevant documents with the aircraft records for inspection by GACA. This comprehensive approach prioritizes safety and compliance throughout major repair and alteration processes for Riyadh Air aircraft.

### 3.1.4.2 Definitions

1. Major Repair:
  - a. A repair that, if improperly done, might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or that is not done according to accepted practices or cannot be done by elementary operations.
2. Major Alteration:
  - a. An alteration not listed in the aircraft or aircraft engine specifications that might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or that is not done according to accepted practices or cannot be done by elementary operations.
3. Minor Repair:
  - a. Any repair that is not classified as a major repair.
4. Minor Alteration:
  - a. Any alteration that is not classified as a major alteration.
5. Data:
  - a. Information that supports and/or describes the repair or alteration including the following:
    - i. Drawings, sketches, and/or photographs.
    - ii. Stress analysis.
    - iii. SBs.
6. EOs.



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7. Operating limitations.
8. Below are the following different types of approved data and indicates whether they can be used for alterations and repairs on a Saudi Arabian Registered (HZ) aircraft under the regulatory provisions of GACAR Part 43:

Type of Approved Data (i.e. Approval type)	Can be used for Alteration / Repairs? (i.e. meets GACAR § 43.21 (a))
FAA STC	Yes (except for the few exceptions listed in GACAR Part 21)
EASA STC	Yes (only when validated by GACA under GACAR Part 21)
AD issued by the FAA	Yes
AD issued by the CAA of the State-of-Design	Yes
Manufacturer's Major Design Change Documentation (e.g. EASA Major Change Approval, SB)	Yes (only when approved by FAA or validated by GACA)
Manufacturer's Continued Airworthiness Documentation (e.g. SRM, SB)	Yes (only when approved by the CAA of the State-of-Design)
Repair design approvals issued by designee working for a US aircraft manufacturer (using FAA form 8100-9 or 8110-3)	Yes
Other foreign repair design approvals	Yes (only when validated by the GACA or the FAA)
FAA AC 43.13-1 &-2	Yes (but only under certain specified conditions as prescribed in the subject FAA AC)
Repair Data Issued Under FAA SFAR 36 Authorizations	No
Statements of Compliance made by FAA engineering designee individuals. (e.g. FAA Form 8110-3 Issued by DER)	No
Statements of Compliance made by FAA engineering designee organization. (e.g. DAS, ODA)	Yes (for repairs only)
Statements of Compliance made by a foreign delegated individual other than an FAA designee	Maybe (for repairs only and only if FAA has a bilateral to accept such statements)



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Type of Approved Data (i.e. Approval type)	Can be used for Alteration / Repairs? (i.e. meets GACAR § 43.21 (a))
Statements of Compliance made by a foreign designee organization other than an FAA designee	Maybe (For repairs only and only if FAA has a bilateral to accept such statements)
GACA STC	Yes
GACA RDA	Yes
Engineering Data issued by a GACAR Part 121 Air Carrier	Yes (provided it is GACA approved)
AD issued by GACA	Yes
Statements of Compliance made by GACA Designated Engineering Representatives (DER)	No
FAA Field Approval	Maybe (GACA will only accept FAA Field Approvals issued to aircraft before time of importation into KSA)
"No Technical Objection" issued by manufacturer	No
Alterations and Repairs classified as "minor with additional showing of compliance" by an EASA Approved design organization	Maybe (GACA will accept on a case-by case basis)

Table 8 List of Approved data for Major Repairs

9. In the case of major repairs or alterations requiring data not already pre-approved for use, the Manager of Technical Services must involve the Quality Assurance (QA) team. The QA team will then assist in determining whether the proposed data meets the GACA's requirements for approved data.
10. If structural repair manuals (SRM) or supplemental type certificates (STC) haven't been approved for major repairs or alterations, Riyadh Air can collaborate with internal or external engineering facilities to develop the necessary data. However, before incorporating it on the aircraft, this data must be submitted to GACA for approval. For major alterations specifically, this approval takes the form of issuing an STC.
11. For Major Repairs, GACA issues data approvals through issuance of GACA Form 8320-1 and as applicable to the circumstances of the application.



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## 3.1.4.3 Responsibility

The Director Maintenance oversees the overall process for both Major and Minor Repairs/Alterations, but for specific details and clarifications on Major ones, he is the designated point of contact.

## 3.1.4.4 Authority

1. The Director of CAMO holds a critical responsibility in ensuring the safety and compliance of aircraft repairs and alterations through the Major/Minor process. including:
  - a. The accurate classification of each repair/alteration, ensuring appropriate levels of oversight and documentation.
  - b. They review the technical data package for each project, verifying its completeness and compliance with Approved Data requirements (manufacturer specifications, service bulletins, etc.).
  - c. The data package adequately supports the planned scope of work, guaranteeing all necessary procedures, materials, and tools are specified.
  - d. Submit and maintain any required reports or listings to relevant authorities, ensuring transparency and traceability of all major repairs and alterations.

## 3.1.4.5 Procedures

1. Whenever extensive repairs or modifications, considered "major," are required for Riyadh Air aircraft, engines, or appliances, the Director of CAMO performs a thorough review:
2. Consult the lists of major repairs and major alterations provided in GACAR Part 43 Appendix A. This helps determine if the proposed work falls within either category based on established criteria.
3. Analyze previous repairs and alterations on the aircraft. Previous modifications might impact the feasibility or complexity of the new work, influencing its classification.
4. Ensure compatibility between existing repairs/alterations and the proposed ones. Incompatible modifications could compromise the aircraft's structural integrity or performance.
5. If the work appears to be a major repair or major alteration, complete the required application form.
6. When major repairs or alterations are needed, the Director of CAMO and Quality Department meticulously review all the data that will guide the work, ensuring it meets the standards and approval of the General Civil Aviation Authority (GACA).



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## 3.1.4.6 Reports

1. Upon completion of a major alteration or major repair, the Technical Services department must promptly prepare a report using the GACA Major Repair and Alteration Form 8320-1 for each major alteration or major repair of an airframe, engine, or appliance. Once completed, the report is forwarded to the QA Department for submission to the GACA authority.
2. Depending on the situation, either the QA Department or the contracted maintenance provider who performed the work is responsible for submitting the report to GACA. The report must be forwarded within 48 hours after the aircraft is approved for return to service. It should be sent via certified mail with "Return Receipt Required" or as specified by GACA.
3. The Technical Records department is responsible for keeping a copy of each report on file.

## 3.1.4.7 Control

1. As part of the audit, the Director of CAMO will focus on ensuring timely completion of all reports mandated by GACA. These reports must adhere to the specific timeframes outlined in this section. The Director will verify compliance through examination of the reports and associated timelines.
2. After maintenance is finished, the Director of CAMO will meticulously review the records and will be on ensuring complete documentation of all major repairs and alterations. This includes verifying that the work was performed using GACA-approved data or data provided by the aircraft manufacturer.
3. To ensure smooth aircraft ownership transfers, the Technical Records Departments will maintain a checklist of major repair and alteration records that must be handed over to the new owner or operator. This includes all major alterations documented for the airframe, engine, or appliance, adhering to the requirements set by GACAR Production Planning and Control will be responsible for ensuring this list is included in the mandatory transfer documentation, guaranteeing complete and accurate recordkeeping for the new owner or operator.
4. Some of Riyadh Air's aircraft leases with lessors might stipulate that contracted maintenance providers handle record-keeping for the planes. These providers, working from their own facilities, would be responsible for meticulously documenting all major repairs and modifications performed on the aircraft.
5. When available maintenance records and documents lack clear evidence of past major repairs or alterations on Riyadh Air aircraft, review of the existing records shall be performed.
6. If available maintenance records and/or documents do not demonstrate compliance for the accomplishment of major repairs and/or alterations, an in-depth review of the existing records shall be performed:
  - a. Conduct a thorough examination of existing records to identify any documents that could verify the accomplishment of major repairs/alterations.



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- b. Look for evidence like previous work orders, inspection reports, data packages, approvals, or other relevant documents that demonstrate the work was completed.
- c. Describe the identified documents and their relevance on the required GACA Major Repair and Alteration Form.
7. Attach copies of these documents to the GACA form and retain them in the aircraft's records file.
8. Ensure the original documents are returned to the proper location within the records system.
9. If the review fails to find sufficient evidence for past major repairs/alterations, it's crucial to bring the aircraft into compliance through the established engineering process detailed in the manual.

## 3.1.4.8 Performance Measures

1. Every year, the Director of CAMO undertakes a thorough evaluation of the major repair and major alteration process.
2. Regular audits by the Quality Department ensure ongoing monitoring of key aspects.
3. List of Major Alterations: Verifying its completeness and accuracy to avoid incorrect classifications or missed reporting requirements.
4. Report Timeliness: Assessing if reports for major repairs/alterations are created and submitted within established timeframes. Delayed reporting could hamper regulatory compliance and raise concerns.
5. GACA Timeliness: Evaluating if reports are submitted to the relevant authorities within specified deadlines.
6. Maintenance Records: Confirming their completeness, accuracy, and accessibility for future reference and GACA inspections.



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## 3.1.5 Guidelines For Major Repairs and Alterations

### 3.1.5.1 Purpose

This section outlines procedures for Riyadh Air or contracted maintenance providers to perform major repairs and alterations on aircraft, requiring regulatory approval. It emphasizes the use of GACA-approved or manufacturer-approved data, proper documentation, and timely submission to GACA. Additionally, it details the process for developing, issuing, and implementing Engineering Orders (EOs).

EOs (Engineering Orders) serve as detailed work cards, outlining approved procedures step-by-step to efficiently complete and record extensive tasks. They serve as a comprehensive guide for tackling complex jobs like evaluating, standardizing, or modifying special equipment, performing major repairs or alterations, ensuring compliance with Airworthiness Directives (ADs), or implementing alternative methods for AD compliance. Essentially, EOs act as a roadmap for technicians, ensuring they perform these intricate tasks accurately and efficiently, while also providing a record of the completed work.

### 3.1.5.2 Responsibility

For all matters related to Major Repairs and Major Alterations, the Director Maintenance holds the reins. This includes managing the entire process, overseeing its execution, and ensuring it adheres to all regulations and standards. Should any questions or concerns arise regarding these procedures.

### 3.1.5.3 Authority

The Director of CAMO holds authority to propose modifications to Riyadh Air policies for the Major Repairs and Major Alterations process.

### 3.1.5.4 Procedures for Major Repairs and Major Alterations Approval

1. Major Repair - Repairs to the following parts of an airframe and repairs of the following types, involving the strengthening, reinforcing, splicing, and manufacturing of primary structural members or their replacement, when replacement is by fabrication riveting or welding, are airframe major repairs such as (but are not limited to):
  - a. Box beams.
  - b. Monocoque or semi-monocoque wings or control surfaces.
  - c. Wing stringers or chord members.
  - d. Spars.
  - e. Spar flanges.
  - f. Members of truss-type beams.
  - g. Wing main ribs and compression members.



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- h. Wing or tail surface brace struts.
  - i. Engine Mounts.
  - j. Fuselage longerons.
  - k. Members of the side truss, horizontal truss, or bulkheads.
  - l. Main seat support braces and brackets.
  - m. Landing gear brace struts.
  - n. Axles.
  - o. Wheels.
  - p. Parts of the control system such as control columns, pedals, shafts, brackets, horns.
  - q. Repairs involving the substitution of material.
  - r. The repair of damaged areas in metal covering exceeding six inches in any direction.
  - s. The repairs of portions of skin sheets by making additional seams.
  - t. The splicing of skin sheets.
  - u. The repair of three or more adjacent wing or control surface ribs or the leading edge of wings and control surfaces, between such adjacent ribs.
  - v. Repairing, including re-bottoming of removable or integral fuel tanks.
2. If an aircraft is physically damaged, the Maintenance Provider analyzes the issue using the Structural Repair Manual (SRM). They then follow the provided repair procedures. If the damage exceeds the SRM's repair limits, the QA Department informs the VP Engineering and Maintenance (DOM), who initiates the Engineering Approval process outlined in this section.
3. Major repairs and alterations shall be performed in accordance with approved data.
4. Supplemental Type Certificate (STC)
- a. Supplemental Type Certificates (STCs) are mandatory for most significant modifications or installations impacting existing Type Certificate (TC) products, unless the change is minor or covered by GACA/FAA Part 21.303. Minor changes and parts meeting those requirements don't require STCs. Multiple STCs might be needed for complex modifications, for example, one for engine changes and another for integrating the modified engine into the aircraft. If significant analysis, flight tests, or extensive flight manual revisions are needed, an STC is likely necessary. Issuing STCs falls under the GACA Aircraft Certification Office (ACO) or Engine Certification Office (ECO) responsible for the STC owner's location.
  - b. Types of STCs are classified as either "one-only" STC (aircraft/engine) or "multiple" STC (aircraft / engine):



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- i. "One-only" STCs apply to only one aircraft/engine serial number.
- ii. "Multiple" STCs are necessary if two or more aircraft/engines are to be modified and it must be demonstrated that the modification can be duplicated.
- c. Changes to an STC must be accomplished by the STC holder.
- d. When it comes to making significant modifications to an aircraft, utilizing an existing Supplemental Type Certificate (STC) offers the fastest and most efficient approach.
- e. If a new STC is required in order to accomplish a major alteration, the procedures in GACA Advisory Circular AC 021-07 "Alteration and Repairs" will be followed.
- 5. Major Alterations requiring regulatory approval.
- 6. Major alterations are major design changes and may require an STC. Previously unapproved major changes to structural strength, reliability, and operational characteristics affect the airworthiness of the product and therefore require engineering approval. Typical major alterations in this category include the following:
  - a. Increase in gross weight and/or change in center of gravity.
  - b. Installation, change, or relocation of equipment and systems may adversely affect the structural integrity, flight, or ground handling characteristics of the aircraft.
  - c. Any change (alteration) of movable control surfaces that may adversely disturb the dynamic and static balance, alter the contour, or make any difference (plus or minus) in the weight distribution.
  - d. Change in control surface travel outside approved limits, control system mechanical advantage, location of control system component parts, or direction of motion of controls.
  - e. Change in basic dimensions or external configurations of the aircraft, such as a wing and tail platform or incidence angles, cowlings, contours or radii, or location of wing and tail fairings.
  - f. Changes to landing gear, such as internal parts of shock struts, length, geometry of member, or brakes or brake systems.
  - g. Any change to manifolds, engine cowling, and/or baffling that may adversely affect the flow of cooling air.
  - h. Changes to primary structure may adversely affect strength or flutter and vibration characteristics or damage the tolerance design philosophy.
  - i. Changes to systems that may adversely affect aircraft airworthiness, such as Relocation of exterior fuel vents.
  - j. Changes to oil and fuel lines or systems that may adversely affect their operation, such as:



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- k. New types of hose and/or hose fittings.
- l. Changes in fuel dump valves.
- m. New fuel cell sealants.
- n. New fuel or oil line materials.
- o. New fuel or oil system components.
- p. Any change to the basic engine, primary controls, operating limitations, and/or unapproved changes to engine adjustments and settings having an effect on power output.
- q. Changes in a fixed fire extinguisher or detector system that may adversely affect the system effectiveness or reliability, such as:
- r. Relocation of discharge nozzle or detector units.
- s. Use of new or different detector components in new circuit arrangements.
- t. Decreasing amount or different type of extinguishing agent.
- u. Changes that do not meet the minimum standards established in a Technical Standard Order (TSO) under which a particular aircraft component or appliance is manufactured.

**Note:** "Meet the minimum standards established in a Technical Standard Order" means that the equipment does not have to have TSO approval, but only needs to meet the requirements set by the TSO.

- v. Changes to aircraft structure or cabin interior of aircraft that may adversely affect evacuation of occupants in any manner.
- w. Substitution of parts.
- x. Use of new types or different hydraulic components.
- y. Tube material and fittings not previously approved.
- z. Alternative means for complying with Ads.
- aa. Any change to required aircraft instrument systems.
- bb. Any other complex special process that if not properly performed could have an adverse effect on the integrity of the product.



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## 3.1.5.5 Major /Minor Alteration and Repair Decision Diagram

### 1. Major/Minor Alteration Decision Diagram

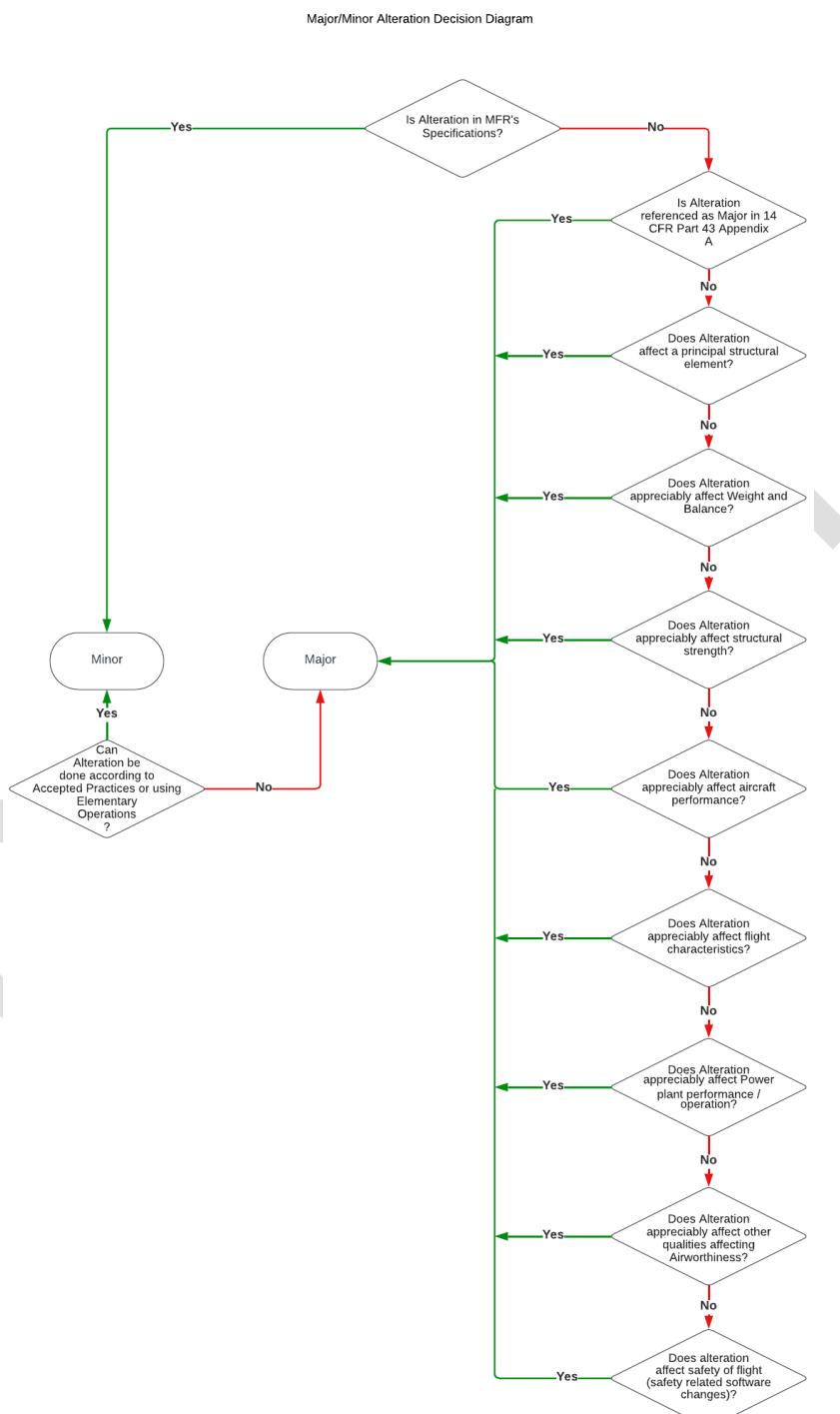


Figure 4 Major/Minor Alteration Decision



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## 2. Major/Minor Repair Decision Diagram

Major/Minor Repair Decision Diagram

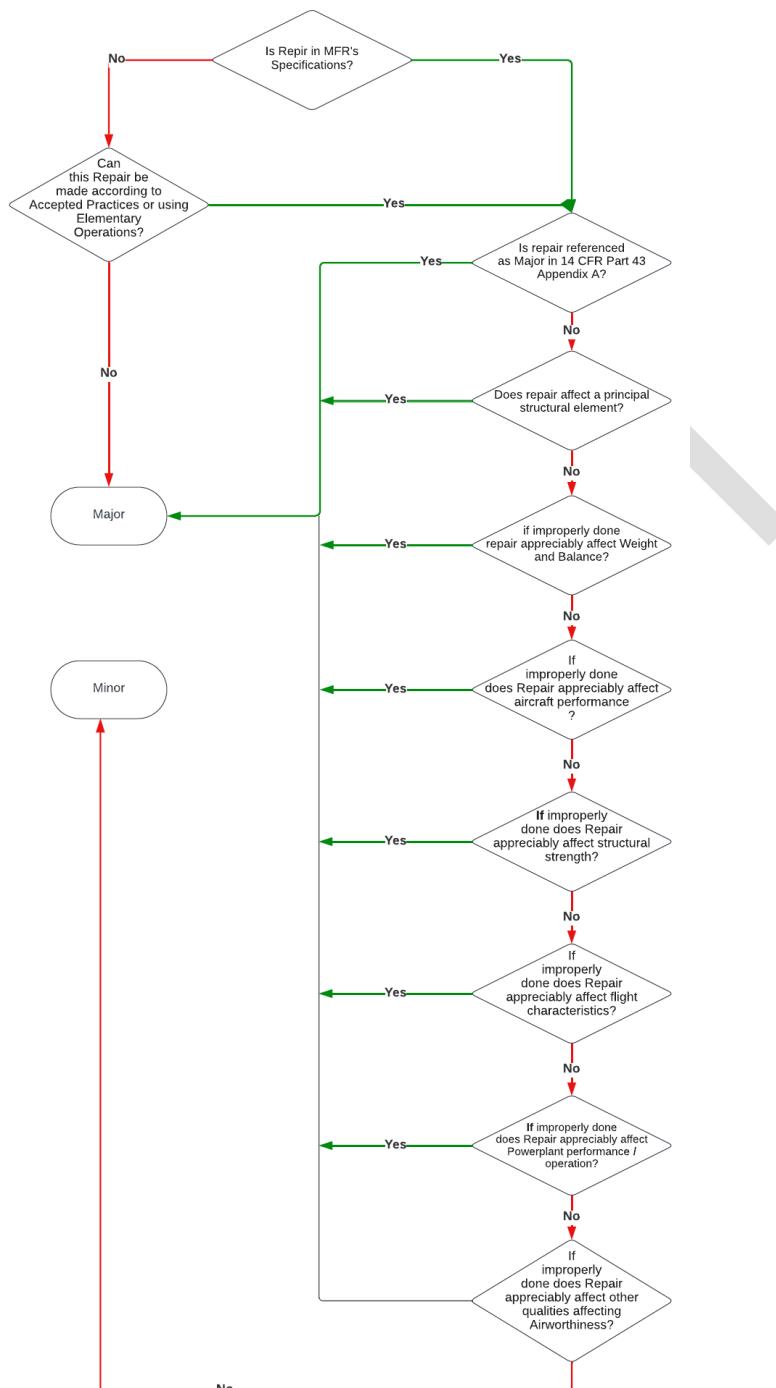


Figure 5 Major/Minor Repair Decision



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## 3.1.6 Refueling And Defueling When Passengers Are Embarking / Disembarking / On Board.

(GACAR § 121.1259)

### 3.1.6.1 Introduction

Refueling commercial aircraft is a complex and potentially hazardous procedure. While accidents are thankfully rare, incidents like fuel spills occur more frequently. To achieve and maintain the industry's excellent safety record, constant vigilance and strong teamwork are essential.

### 3.1.6.2 Scope:

To ensure passengers and crew members safety while refueling or defueling aircraft during embarkation or disembarkation.

### 3.1.6.3 Key Elements

1. Permitted Fuel Types:
  - a. Not allowed: Wide cut gasoline type fuels (JET B, JP4, or equivalents) or mixtures containing them.
  - b. Allowed: Kerosene (JET A, JET A1 JP8, RT, TH, or equivalents, as approved by the Aircraft Flight Manual).
2. Required Communication:
  - a. Two-way communication between the flight deck and ground personnel (headset man from maintenance) is mandatory before commencing fueling.
3. Refer to OM-A Section 8.2.1.3 for information related to refueling and defueling with passengers on board, embarking or disembarking.

### 3.1.6.4 Procedure

1. Following precautions prioritize passenger safety and facilitate prompt evacuation in case of emergencies, even during refueling operations.
2. Ramp Agent's Responsibilities:
  - a. Ensure flight crew, cabin crew, and maintenance are at their stations.
  - b. Keep areas beneath emergency exits clear.
  - c. Alert the fire service.
  - d. Control passenger boarding and disembarkation.



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3. Flight Crew's Responsibilities:
  - a. Communicate with maintenance personnel.
  - b. Inform cabin crew about refueling start and end.
  - c. Monitor for fire warnings from maintenance.
  - d. Be prepared to initiate evacuation if needed.
4. Maintenance Technician's Responsibilities:
  - a. Communicate with flight crew.
  - b. Inform flight crew about refueling start and end.
  - c. Notify the flight crew immediately in case of fire.
  - d. Indicate clear exits to flight crew for evacuation.
  - e. Stop refueling upon flight crew's request.
5. Cabin Crew's Responsibilities:
  - a. Communicate with flight crew.
  - b. Inform passengers not to smoke and unfasten seatbelts.
  - c. Ensure emergency exits are clear of obstructions.
  - d. Turn on "EXIT" signs.
  - e. Ensure ground servicing activities don't create hazards or delay evacuation.
6. Prioritizing safety and maintaining clear communication throughout refueling operations are vital for successful evacuation/disembarkation procedures. Following these guidelines ensures the well-being of passengers and crew in case of emergencies.
7. Immediate Actions:
  - a. Stop Refueling: If fuel vapor or any other hazard arises inside the aircraft, refueling must be halted immediately. This prioritizes safety and allows for swift response.
  - b. Maintain Access: Ground servicing and work inside the aircraft (catering, cleaning) must be conducted in a way that doesn't create obstacles. Aisles and emergency exits should remain clear for prompt evacuation.
8. Evacuation Scenarios:
  - a. Fire Evacuation: In case of a fire or large fuel spill, either a precautionary disembarkation or an emergency evacuation may be necessary. Both follow similar protocols. Ground personnel will inform the flight crew of the situation, emphasizing clear communication between all parties.



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- b. Jetway Priority: If a Jetway is available, it should be used for both boarding and evacuation/disembarkation. It provides a safer, faster alternative to escape slides, keeping passengers away from the fire. The Jetway handling agent assumes responsibility for passenger safety in the tunnel.
  - c. Stairs Over Slides: If stairs are positioned near the aircraft, they should be preferred over escape slides, especially if the deployment area outside is unclear or potentially obstructed by vehicles, equipment, or personnel. Escape slide deployment delays due to such obstacles could worsen the situation.
9. Controlled Slide Deployment: Utilizing escape slides remains an option for rapid evacuation. However, it's crucial to ensure the deployment area is clear of any obstructions. If necessary, wait for equipment, personnel, or vehicles to move away before arming the slide and opening the door.

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## 3.1.7 Loadable Database Software / Navigation Database (NDB) Updating

(GACAR § 121.521)

### 3.1.7.1 Introduction

This document outlines the procedures for managing loadable software, acquiring, reproducing, storing, using, configuring. These procedures apply to software updates for Aircraft-installed systems, specifically, NDB and EGPWS/GPWS

### 3.1.7.2 Scope:

This policy serves as instructions for regularly upgrading the loadable database software / navigation database (NDB).

### 3.1.7.3 Key Elements

1. This process involves coordination between multiple departments.
2. Technical Services play a central role in managing software media and updates.
3. Training and compliance are crucial aspects.
4. Clear communication and adherence to procedures are essential for successful software updates.
5. The maintenance provider is responsible for ensuring that the appropriate staff are aware of the Riyadh Air loadable software configuration control processes and know where to find the particulars of loadable software part numbers.

### 3.1.7.4 Policies

1. Databases in LRUs
  - a. Databases store data for access, retrieval, and updates by LRU operating systems.
  - b. Examples include Navigation Database (NDB), ACARS, ACMS, DFDAU mandatory, and DFDAU ARINC 429 broadcast databases.
  - c. The NDB contains navigation and route information for the Flight Management System and is typically updated every 28 days.
2. Software Acquisition and Handling
  - a. Software parts require similar control as hardware LRUs, including planning, distribution, acquisition, storage, and accessibility.
  - b. Software is acquired from the Original Equipment Manufacturer (OEM).



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- c. Software media (e.g., PC cards, diskettes) should be handled carefully and protected from water, dust, contaminants, and magnetic fields.
- 3. Software Media Handling, Shipping, and Storage
  - a. Label software media with supplier's name, part number, title, aircraft model, registry number (if applicable), software release date, and LRU name and part number.
  - b. Avoid exposing software media to water, dust, contaminants, or magnetic fields.
  - c. Package software media carefully when shipping and label as containing magnetic media.
  - d. Store software media in protective containers, within a temperature range of 10-30°C (50-86°F), and at least 30 cm away from electromagnetic sources.
- 4. Receiving and Updating Software
  - a. Engineering and Maintenance handle software access, download, and upload.
  - b. Handling, shipping, and storage requirements must be strictly followed.
- 5. Disposal of Software Media
  - a. Discard or destroy superseded software or media with defects.
  - b. Do not reuse or relabel software media.
  - c. Technical Services handle disposal of obsolete, superseded, or faulty software media.
- 6. Configuration Management of Software
  - a. Technical Services ensure appropriate loadable software configuration control processes are in place.
  - b. Technical Services generate a loadable software list including software nomenclature, LRU part number, revision/issue number/date, supplier, media, location, and engineering publication reference.
- 7. Software Loading
  - a. On-board software loading can be done with airborne or portable data loaders by qualified avionics technicians/engineers.
  - b. Verify loading after completion as per the Aircraft Maintenance Manual.
  - c. Maintenance Planning ensures timely loading of correct software (e.g., navigation data) according to manufacturer's instructions.
- 8. Loadable Software Maintenance Training
  - a. Technical Training provides loadable software training to personnel involved, covering LRUs, data loaders, media handling, MEL requirements, Aircraft Maintenance Manual procedures, and software configuration.



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## 3.1.7.5 Procedure

1. Engineering and Maintenance dept
  - a. Obtains applicable documents from the OEM SB (Original Equipment Manufacturer Service Bulletin) that require software updates.
  - b. Acquires the new software and loads it following Technical Services' instructions.
2. Task cards are issued based on Technical Services Notification through email or EO (if required), outlining the steps for loading the software and handling both new and old media.
3. Technical Services maintains a record of the latest Aircraft System Loadable Software List.
4. Maintenance performs loading and verification of the software as per engineering publications or applicable task cards.
5. Technical Services disposes of superseded software media.
6. Completion of the software upload is reported.

## 3.1.7.6 Responsibilities:

1. Technical Training Department:
  - a. Establishes and provides a loadable software maintenance training module.
2. Technical Services:
  - a. Manages distribution, storage, control, and disposal of software media.
  - b. Loads, verifies, and maintains quality of software in a timely manner.
  - c. Prepares compliance reports as required.
  - d. Ensures that all personnel handling loadable software have undergone the approved maintenance training on loadable software Accesses, acquires, reviews OEM SBs, and uploads software.
  - e. Handles acquisition of applicable software for the fleet.
  - f. Accepts/approves engineering documents for software updates.
3. Riyadh Air Operations:
  - a. Informs Technical Services of any software updates required for aircraft or fleet.



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## 3.1.8 Standard Hand Tools Policy

### 3.1.8.1 General

Riyadh Air provides a set of standard hand tools, tailored to each trade, to all employees who need them. This includes a standard toolbox.

The company owns the tools, but employees are responsible for their care and upkeep.

Each employee is assigned a specific set of tools and is held accountable for their proper use and maintenance.

The Tool Crib maintains records of tool assignments, providing a tooling list whenever a toolbox is issued to maintenance personnel.

### 3.1.8.2 Privately or Personally Owned Tools

1. Conditions for Personal Tool Use:
  - a. Only tools that meet company standards and are part of the approved set can be used.
  - b. Certain brands are preferred, but unbranded tools can be accepted if they pass inspection.
  - c. Tools not meeting standards must be kept off-premises.
  - d. Both company-issued and approved personal tools are marked with the unique serial number for identification.
  - e. Employees using personal tools are still issued a standard toolbox to ensure organization and accountability.
2. Tracking of Personal Tools Left in Aircraft:
  - a. Tooling List documents the specific tools assigned to each employee, including personal tools.
  - b. Duty Supervisors conduct regular inspections of toolboxes and tools, comparing their findings to tooling lists. Any discrepancies, such as missing personal tools, should be noted.
  - c. Employees are likely expected to report any lost or misplaced tools promptly.
  - d. If a personal tool is found missing, the company may initiate an investigation to determine the circumstances and take corrective actions.

### 3.1.8.3 Tool Inspection

1. Maintenance personnel are directly responsible for verifying their tools are complete before the aircraft departs and after their shift ends. This ensures no tools are accidentally left behind during maintenance, potentially causing harm or damaging the aircraft.



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2. Independent checks of employee toolboxes and tools are conducted monthly by Duty Supervisors. This adds an extra layer of accountability beyond self-checking.
  - a. Monthly Inspection Record shall be retained for at least six months from the date of last inspection.

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## 3.1.9 Handling Of First Aid Kit, Universal Precaution Kit And Emergency Medical Kit/Doctor's Kit

GACAR § 121.509

### 3.1.9.1 Introduction

As an operator in the aviation industry, Riyadh Air recognizes the crucial role of readily available medical kits in addressing unforeseen injuries or medical emergencies that may arise during flights. These kits, including First Aid Kits (FAKs), Universal Precaution Kits (UPKs), and Emergency Medical Kits (EMKs)/Doctor's Kits, serve as vital lifelines for passengers and crew alike, potentially making a significant difference in critical situations. The provision and availability of these medical kits onboard aircraft are not merely recommendations; they are mandated by aviation regulatory authorities.

### 3.1.9.2 Scope

Applies to all types of medical kits aboard Riyadh Air aircraft. Facilitate provisioning, handling, and maintenance. Focuses on catering to the medical needs of passengers.

### 3.1.9.3 Key Elements

1. All required medical kits are present and readily accessible in designated locations throughout the aircraft.
2. The contents of each kit are complete and in good condition, with expired items replaced promptly and essential supplies replenished regularly.
3. Crew members are adequately trained in the proper use of the kits and understand the applicable safety protocols for handling medical emergencies.

### 3.1.9.4 Policies

1. For the purpose of this policy, each B787 FAK must contain at least the following items:

FIRST AID KIT CONTENTS		
	ITEM DESCRIPTION	QUANTITY
1	Content List	1
2	Adhesive wound closures (Leuk strip, Steir-Strip, butterfly strips or equivalent)	20
3	Ammonia Inhalants	10*
4	Antiseptic Swabs	20



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FIRST AID KIT CONTENTS		
	ITEM DESCRIPTION	QUANTITY
5	Bandage: Adhesive Compress, 2.5 cm (1 in)	16
6	Bandage: Gauge 7.5 cm by 4.5 m (4 in by 15 ft.)	4
7	Bandage: Triangular, 100 cm (40 in), 2 safety pins	5
8	Dressing: Burn 10 cm by 10 cm (4 in by 4 in)	1
9	Dressing: Gauze, sterile 10.4 cm by 10.4 cm (4 in by 4 in)	8
10	Eye Pad	1
11	Gloves, Disposable	6
12	Scissors, Bandage, 10 cm (4 in), blunt tip	1
13	Splint: Arm, non-inflatable	1**
14	Splint: Leg, non-inflatable	1**
15	Tape: Adhesive 2.5 cm (1 in)	2 rolls
16	Towelettes, Antiseptic or Cleansing	10
17	Tweezers: Splinter	1
18	Medical Report Form RXI/OPS-MNT-MT124, as revised)	2

Table 9 First aid kit contents

\* Due to limited availability in KSA, ammonia inhalants are optional items for all First Aid kits.

\*\*Arm and leg splints which do not fit within a first-aid kit shall be stowed in a readily accessible location that is as near as practicable to the kit.

2. Each approved EMK/Doctor's Kit must contain, as minimum; the following appropriately maintained contents in the specified quantities (GACAR Part 91 and Part 121 requirement).

EMK/DOCTOR'S KIT CONTENTS		
	ITEM DESCRIPTION	QUANTITY
1	Sphygmomanometer	1
2	Stethoscope	1
3	Bag Valve Mask / Ambo Bag	1



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EMK/DOCTOR'S KIT CONTENTS		
	ITEM DESCRIPTION	QUANTITY
4	Airways, oropharyngeal (3 sizes): 1 pediatric, 1 small adult, 1 large adult or equivalent	3
5	Self-inflating manual resuscitation device with 3 masks (1 pediatric, 1 small adult, 1 large adult or equivalent)	1:3 masks
6	CPR mask (3 sizes), 1 pediatric, 1 small adult, 1 large adult, or equivalent	3
7	IV Admin Set: Tubing w/ 2 Y connectors	1
8	Alcohol sponges	2
9	Adhesive tape, 1-inch standard roll adhesive	1
10	Tape scissors	1 pair
11	Tourniquet/Venous Tourniquet	1
12	Normal Saline solution, 500 cc	1
13	Protective non-permeable gloves or equivalent	1 pair
14	Sponge Gauze	1
15	Flashlights and Batteries	
16	Surgical Mask	
17	Needle Disposable Box / Sharp Bin	
18	IV Catheters / IV Cannula	4 pairs
19	Needles (2–18 ga., 2–20 ga., 2–22 ga., or sizes necessary to administer required medications)	6
20	Syringes (1–5 cc, 2–10 cc, or sizes necessary to administer required medications)	4
21	Urinary Catheter	1
22	Emergency Tracheal Catheter (or large gauge IV cannula)	1
23	Umbilical Cord Clamp	1
24	Thermometer	
25	Analgesic, non-narcotic, tablets, (Sapofen 400 mg) (PROF)	4
26	Antihistamine tablets, 25 mg (CLARA OR GLORIA OR HISTOP)	4



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EMK/DOCTOR'S KIT CONTENTS		
	ITEM DESCRIPTION	QUANTITY
27	Antihistamine injectable, 50 mg, (single dose ampule or equivalent)	2
28	Atropine, 0.5 mg, 5 cc (single dose ampule or equivalent)	2
29	Acetyl Salicylic Acid (Aspirin) 300 mg	4
30	Bronchodilator, inhaled (metered dose inhaler or equivalent)	1
31	Dextrose, 50%/50 cc injectable, (single dose ampule or equivalent)	1
32	Epinephrine 1:1000, 1 cc, injectable, (single dose ampule or equivalent)	2
33	Epinephrine 1:10,000, 2 cc, injectable, (single dose ampule or equivalent)	2
34	Lidocaine, 5 cc, 20 mg/ml, injectable (single dose ampule or equivalent)	2
35	Nitroglycerin tablets, 0.4 mg	10
36	Ondansetron / Premosan injection	2
37	Dexamethasone	2
38	Lasix	2
39	Metergin	2
40	Concor 5	1
41	Sodium Chloride 0.9% / Ringer Lactate	1
42	Basic instructions for use of the drugs in the kit	1
43	Medical Report Form RXI/OPS-MNT-MT124 as revised)	2

*'Table 10 EMK/DOCTOR'S kit contents'*

3. Each Universal Precaution Kit (UPK) must contain the following appropriately maintained contents in the specified quantities (GACAR Part 91):

UNIVERSAL PRECAUTION KIT CONTENTS		
	ITEM DESCRIPTION	QUANTITY
1	Safety Shield Combo, Mouth/Eye Protection	1
2	Vinyl Gloves, Size Large	2 pair
3	Antimicrobial Hand Wipe	2
4	Fluid Resistant, Open Back Gown	1



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## UNIVERSAL PRECAUTION KIT CONTENTS

ITEM DESCRIPTION		QUANTITY
5	Red Biohazard Waste Bag	2
6	Twist Tie	2
7	Disinfectant Germicidal Wipe	1
8	Scoop and Scraper	1
9	Dry Solidifier	1
10	Large Absorbent Towel	1
11	Bonnet, Disposable	1
12	Shoe Covers, Disposable	1 pair
13	Instructions	1

Table 11 UNIVERSAL PRECAUTION KIT Contents

*Note: This module does not contain items that are life-limited, but visual check at each overhaul cycle is recommended.*

- Approved emergency FAK, UPK, and EMK/Doctor's Kit Must be stored securely to prevent dust, moisture, and damaging temperatures. Contents must meet GACAR Part 91 and Part 121 specifications and requirements as revised or approved.
- First-aid kits must be distributed evenly throughout the aircraft, readily accessible to cabin flight attendants. Minimum number required as per GACAR 121 and Part 91 (see table below).

No. of Passenger Seats	No. of First Aid Kits
100 – 200	2
201 – 299	3
More than 300	4

Table 12 FAK kit Requirements

- Required first-aid kits must be distributed as evenly as practicable throughout the aircraft and be readily accessible to the cabin flight attendants.
- One approved emergency medical kit per aircraft must be available on every passenger flight and should be readily accessible to crew members.

**Note:** Expended or Used FAK, UPK and EMK / DOCTOR'S KIT shall be replaced with new and complete FAK, UPK and EMK / DOCTOR'S KIT so as to maintain the minimum required number for a specific aircraft.



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8. Limiting removal and installation to authorized maintenance personnel ensures proper handling and prevents accidental damage or tampering.
9. Opening or tampering for non-medical purposes is prohibited and maintains the integrity of the kits and guarantees their readiness for actual emergencies.

**Note:** Only Cabin Crew personnel shall be given authorization to open and use FAK to provide immediate medical attention to passengers.

10. The department responsible for FAK, UPK, and EMK/Doctor's Kit shall:
  - a. Regularly conduct inspections to monitor the expiration dates of all kits in stock.
  - b. Ensure timely replacement of any kits or individual items nearing or exceeding their expiration date.

**Note:** Expired EMK / DOCTOR'S KIT shall be sent immediately to contracted medical facility for replenishment.

11. At regular intervals specified by the applicable maintenance task, the maintenance provider shall ensure that serviceable FAK, UPK and EMK / DOCTOR'S KIT are properly installed on designated location and not expired.

Determination of FAK, UPK and EMK / DOCTOR'S KIT serviceability shall be as follows:

Kit with GREEN seal and will not expire before the next turn-around at maintenance base station is serviceable.

Kit with tampered, missing seal and those with GREEN seal but expires before the next turn-around at maintenance base station shall be considered unserviceable and must be replaced immediately.

12. Expended or used, expired and tampered FAK may be replenished by Receiving Inspector and EMK or Doctor's Kit shall be routed to an approved medical facility for replenishment and shall be provided with inspection decal by the QI prior to installation in the aircraft.
13. Inventory check of remaining content of the kit shall be performed by the QI and all missing items and those expiring within two (2) months shall be replenished.
14. Department in charge of the FAK, UPK and EMK or Doctor's Kit shall maintain a record of all FAK, UPK and EMK / DOCTOR'S KIT released for use until its return for replenishment.
15. Expended or used FAK, UPK or EMK/DOCTOR'S KIT content shall be recorded by the cabin crew in the Medical Report Form (FORM: RXI/OPS-MNT-MT124) and ACL for proper maintenance action (i.e., deferral to HIL or replacement if available and ground time permits).



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## 3.1.9.5 Procedures

1. Safety and Inspection:
  - a. Green seal: Indicates a serviceable FAK/UPK/EMK, fit for use.
  - b. Yellow seal: Indicates an unserviceable FAK/UPK/EMK, must be replaced.
  - c. Broken seal or expired kit: Not acceptable, must be replaced.

## 3.1.9.6 Responsibilities:

1. Cabin Crew:
  - a. Check FAK/UPK/EMK seals and expiration dates during pre-flight checks.
  - b. Fill out Medical Report Form RXI/OPS-MNT-MT124 if FAK/EMK is used or opened.
  - c. Inform Purser before making ACL entry for used/opened kits.
2. Maintenance:
  - a. Check aircraft logs for reports of opened/used/expired kits.
  - b. Replace expired or broken seal kits with serviceable ones.
  - c. Replace "Next Inspection Due Decal" if missing or damaged.
3. Receiving Inspector:
  - a. Check EMK/Doctor's Kit contents and condition upon receiving from medical facility.
  - b. Install green seal, decal, and serviceable tag if acceptable.
4. Quality Department:
  - a. Supervise Receiving Inspector for EMK/Doctor's Kit receiving inspection.



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## 3.1.10 Hot and Cold Weather Maintenance

GACAR § 121.APP G II (F)

### 3.1.10.1 Purpose

All-weather aircraft maintenance demands higher vigilance, specialized procedures, and robust equipment to guarantee safe and reliable operation in challenging weather conditions.

### 3.1.10.2 Procedures

1. General Maintenance Practices in Hot Weather:
  - a. Maintenance personnel should always be vigilant in hot weather conditions to minimize potential damage to the aircraft and ensure safe operation. Here are some key practices to follow:
    - b. Exterior:
      - i. Sand Dust Protection:
        - 1) Covers: Use protective covers for engine inlets, exhaust nozzles, AOA probes, total air temperature probes, ram air inlets and outlets, whenever the aircraft is parked. This helps prevent abrasive sand dust from entering and damaging sensitive systems.
        - 2) Cleaning:
          - 1) Exercise extreme caution when cleaning or washing contaminated areas to avoid further spreading sand dust.
          - 2) Carefully remove loose sand dust from the airplane's exterior skin.
          - 3) Schedule more frequent cleaning services to maintain a clean and dust-free surface.
        - iii. Inspections:
          - 1) Ensure all external probes and sensors are clean and free of sand build-up or blockages that could affect performance.
          - 2) Check all radio antennas (DME, VHF, ADF, ATC, etc.) for signs of erosion or abrasion caused by sand particles.
          - 3) Verify cockpit and passenger windows are free of dust and sand accumulation, ensuring acceptable visibility for pilots and passengers.
      - c. Interior:
        - i. Heat and Sand Effects:



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- 1) High temperatures and sand can negatively impact cockpit and cabin systems and equipment. Therefore, maintenance personnel should:
  - 2) Cooling: Ensure all electronic equipment is adequately cooled. Without proper cooling, line replaceable units (LRUs) can overheat, compromising airworthiness and system operation.
  - 3) Remove life rafts from the aircraft if they are expected to be exposed to temperatures exceeding 53.5°C (130°F) to prevent accidental CO2 cartridge discharge.
  - 4) Minimize sand entry into the cabin by keeping doors closed as much as possible.
  - 5) Schedule regular vacuum cleaning to remove sand accumulated within the cabin interior.
2. General Maintenance Practices in Cold Weather:
  - a. Refer De-icing and Anti-icing manual



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## 3.1.11 Non-Revenue Flight (Functional Check Flights, Test Flight, Acceptance Flight, Demo Flight)

### 3.1.11.1 General

Only essential personnel with specific authorization from Departmental Directors can participate in test flights. All requests for test or non-revenue flights for maintenance reasons (storage, long-term parking) must be initiated through Maintenance Flight Request Forms (FORM RXI/OPS-MNT-MT107) by MCC or Maintenance Planning. In short, strict control and clear authorization are required for all test and maintenance-related flights.

### 3.1.11.2 Test Flight Authorization Maintenance Personnel

Maintenance personnel needing to fly for observation or technical advice during testing must obtain clearance from MCC. This clearance request goes to the VP Engineering and Maintenance (DOM) and VP Flight Operations for final approval. Ultimately, releasing the aircraft for the test flight falls on Riyadh Air maintenance or the designated maintenance provider.

### 3.1.11.3 Release

Riyadh Air, or its designated maintenance provider, holds the responsibility for authorizing test flights following necessary maintenance checks. This authorization will be documented in the aircraft's Tech Log, explicitly stating that the aircraft is released solely for test flight purposes.

### 3.1.11.4 Functional Check Flight, Operational Check Flight, Maintenance Check Flight, Acceptance Flight Requirements or Test flight as required by Regulatory Authority

1. FCFs are required for certain maintenance actions before an aircraft can return to service. Here's the process:
  - a. Maintenance completes the required checks and logs them, including their name, signature, authorization number, and date.
  - b. Delegated or inspection personnel verify completed maintenance and documents, then sign off to release the aircraft for a one-time FCF. They also record their name, signature, authorization number, date, and time of release.

**Note:** A one-time FCF can be one flight, or any series of flights. If maintenance is required between flights, excluding the servicing of the aircraft, a new dispatch release will have to be obtained prior to further flight.



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2. On the next log sequence, a maintenance entry will be made in the remark column stating, non-revenue flight required due to: (dual engine change, flight control change or whatever system or component that is requiring the test flight). Include manual reference to functional test criteria as required. The maintenance entry will be corrected by writing the statement, "Aircraft released for Non-Revenue Flight after completion of all the required maintenance checks.

*Note: Aircraft Release to Service and Defect Release must be completed.*

3. Flight Test by Captain:
  - a. Log Flight: The captain logs "Non-Revenue" in the aircraft tech log's flight number block.
  - b. Review and Test: After discussing the test reason with maintenance, the captain performs the flight. They verify if the affected system(s) function as per the maintenance manual and approved AFM sections.
4. Documentation and Release:
  - a. Captain's Findings: After the flight, the captain logs their findings in the tech log.
  - b. For a satisfactory aircraft, they log "Successful Non-Revenue flight completed" or "Successful FCF completed."
  - c. Discrepancies: Any issues are documented in the ATL.
5. Release for Revenue Service: Upon a successful test flight, the delegated inspector/QI inspector signs off on the corrective action log, releasing the aircraft for revenue service after a successful test flight.
6. Test flight Required if
  - a. Aircraft buffeting, vibration or flutter reported, and no definite cause can be found and cannot be duplicated on the ground.
  - b. Flight control surface major repairs (Consult AMM) (see Note i and ii below)

## Note

i. A test flight is required when major repairs have been made and/or structural members have been replaced and there is reason to believe that the flight characteristics of the aircraft may have been changed. This decision will be the responsibility of the VP Engineering and Maintenance (DOM) or his duly authorized representative.

ii. A functional flight may be required when any major structural repair is made on a control surface. This normally would include spars, ribs, or leading edges. Minor ribs or trailing edge repair will normally not require functional test flight. The extent and location of the repair will dictate the necessity of functional flight. This decision will be the responsibility of the VP Engineering and Maintenance (DOM).

7. Test Flight Not Required



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- a. Outlined below is a description of a condition under which will not require a functional test flight:
  - i. Engines
    - 1) When one engine changed and after run-up items and all of the following is complied with:
      - a) The powerplant is installed using an applicable Engine Change Form as an inspection check sheet. All items must be signed off by the Mechanic making the installation, and the Delegated Inspector / QI Inspector assigned.
      - b) Following the installation, a ground run-up of the engine changed must be made, using the applicable Engine Run-Up form and the instructions set forth in the appropriate chapter of the maintenance manual for the affected aircraft. Engines may be run as required to perform functional checks of the inter-related systems.
    - ii. Flight Controls removal/installation without major repair/alteration (Refer to AMM).

## 3.1.12 Deferment of Maintenance Workload or Maintenance Task

### 3.1.12.1 Introduction

Deferring maintenance tasks during maintenance requires authorization from the Maintenance Control Center (MCC) and the Maintenance Planning Department. This applies to both scheduled and unscheduled checks, but not to tasks already included in the original A and C check packages. The MCC must verify the status of all loaded tasks, whether completed, deferred, postponed, or cancelled.

### 3.1.12.2 Purpose

To ensure clear communication between the Maintenance on Duty and MCC regarding aircraft maintenance work. To keep MCC fully informed, Maintenance on duty must consistently coordinate with them on any tasks performed on the aircraft. This ensures MCC stays up-to-date on the status and progress of the work, allowing them to make informed decisions and manage resources effectively.

### 3.1.12.3 Procedures

1. Deferring maintenance requires ensuring airworthiness through MCC & QI consultation.
2. While MCC generally releases aircraft with all final checks finished, they can allow minor maintenance deferrals. These deferrals must be confirmed as minor and highly correctable to ensure the aircraft's safety.



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3. Prompt notification to MCC, along with comprehensive information, empowers them to make informed decisions regarding the Minimum Equipment List (MEL) and ultimately determine the aircraft's airworthiness.
4. Valid Reasons for Deferring Maintenance Tasks:
  - a. The deferred task must have at least 1 day (or equivalent FC/FH) remained
  - b. Necessary tools or test equipment are unavailable due to breakdown or other reasons.
  - c. Required parts are not currently available in stock or cannot be procured in time.
  - d. Unexpected repair work, access difficulties, or aircraft emergencies require immediate attention, leaving insufficient ground time for the scheduled maintenance task
5. Deferral requires both maintenance and MCC approval, ensuring only tasks with sufficient remaining time (not due yet) are considered.
6. Deferring a maintenance task requires clear documentation and accountability. Fill out Task Card / Workload Deferment form (FORM: RXI/OPS-MNT-MT133), stating the reason and remaining time before attaching it to the deferred task card. The releasing personnel needs to sign and authorize the deferment. Keep a copy in the work package as part of the complete work pack. PCC will monitor and reschedule the deferred task before its due date (calendar, flight hours, or flight cycles), whichever comes first.



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## 3.2 MAINTENANCE PLANNING

GACAR § 121. app g II (i)

### 3.2.1 Daily Maintenance Plan

#### 3.2.1.1 Introduction

Maintenance plan are those non-routine and routine (scheduled) maintenance task to be performed daily.

Daily Maintenance plan shall be established and provided daily to Maintenance.

#### 3.2.1.2 Purpose

To provide a clear overview of daily maintenance activities and aircraft status, ensuring flight safety and operational efficiency.

#### 3.2.1.3 Scope

Covers both routine (scheduled) and non-routine maintenance tasks.

#### 3.2.1.4 Key Elements

1. Daily Maintenance Workload: A comprehensive package of tasks to be completed each day, including:
  - a. Routine tasks: Daily checks, weekly checks, A-checks, out-of-phase tasks, EOs, and NRCs (prepared by Maintenance Planning).
  - b. Pre-arm tasks: Work orders for previously deferred defects and MARs (prepared by MCC).
2. Summary of Daily Maintenance Workload (FORM: RXI/OPS-MNT-MT108): A document that outlines the tasks and their statuses for each aircraft.

#### 3.2.1.5 Responsibilities

1. PCC (Production Control Center):
  - a. Creates the Daily Maintenance Work package.
  - b. Distributes it to Maintenance for completion.
  - c. Collects completed packages and checks task statuses.
  - d. Submits the Summary of Daily Maintenance Work plan to MCC.
  - e. Obtains approval from Maintenance Planning Manager for routine task deferrals.



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2. Maintenance:

- a. Completes assigned tasks in the Daily Maintenance Workplan
- b. Defers uncompleted tasks using the Maintenance Workload Deferral Form: RXI/OPS-MNT-MT133.
- c. Requests MCC approval for task deferrals (refer to GMM [3.1.12](#)).

3. MCC (Maintenance Control Center):

- a. Provides PCC with the Pre-arm tasks for the day.
- b. Give a copy of the Summary of Daily Maintenance Work plan to the Chief Inspector.
- c. Approves or rejects task deferral requests (refer to GMM [3.1.12](#)).

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## 3.2.2 Scheduled Events Monitoring

GACAR §§ 121.app g ii C (1)

### 3.2.2.1 Introduction

Maintaining airworthiness is the responsibility of PCC, encompassing the implementation, monitoring, and control of all scheduled inspections, maintenance checks, and service procedures for Riyadh Air aircraft.

Tailored maintenance schedules are prepared for each aircraft type and its components, reflecting the requirements of the manufacturer and its CAA, GACA, and the company standards and practices. These schedules dictate the frequency of comprehensive checks for both the aircraft itself and its vital components.

To ensure optimal performance and adherence to desired safety standards, adjustments to maintenance schedules may be implemented through the established reliability program.

A spectrum of scheduled maintenance activities is performed, including, but not limited to, routine line servicing (pre-flight, daily, and weekly checks), specialized ETOPS PDSC inspections, minor A-Checks, comprehensive C-Checks, periodic out-of-phase inspections or maintenance, time-constrained on-wing and system checks and maintenance, meticulous structural sampling and inspections, and proactive corrosion prevention and control measures.

To ensure timely completion of maintenance tasks and avoid the need for frequent extensions, it's crucial to have effective maintenance planning and management practices in place.

### 3.2.2.2 Policies

1. Maintenance Check Scheduling and Due Dates:
  - a. The date for the next maintenance check is determined based on when the previous maintenance was completed (CRS/RTS issued or aircraft release).
  - b. Calendar-based tasks not included in the previous maintenance continue to accumulate time towards their next due date, even if the aircraft is grounded.
  - c. All due calendar-based tasks must be completed before an aircraft can be released from maintenance.
  - d. If two A-Checks become due while the aircraft is under maintenance, both must be done before release.
2. Types of Maintenance Checks and Work Coverage:
  - a. Line Servicing:



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- i. Pre-Flight, Daily, Weekly Checks: Basic walkarounds, fluid checks, functional checks, pilot remark corrections.
  - ii. ETOPS PDSC: Verification of ETOPS systems, review of maintenance records, interior/exterior inspection, engine/APU oil levels.
  - b. Minor Checks (A-Checks): Inspection, lubrication, servicing, and testing of airframe, engines, and accessories, involving opening selected access panels.
  - c. Major Checks (C-Checks): Detailed visual inspection of the entire aircraft, including structure and system checks, to ensure airworthiness.
3. Mandatory Maintenance and Scheduling:
- a. Scheduled maintenance tasks with hard time intervals or life limits are mandatory.
  - b. Aircraft cannot be operated with overdue maintenance requirements.
  - c. Hard time-controlled maintenance task limits can only be extended under specific conditions and limitations.
  - d. The Escalation Program should not be misused to cover scheduling issues or poor management.
4. Hard Time Controlled Maintenance Task Limits:
- a. These are mandatory maintenance tasks that must be performed at specific intervals or before a certain life limit is reached.
  - b. Extension of Limits: These limits can only be extended under certain conditions, which are outlined in either the approved Aircraft Maintenance Program (AMP) or the manufacturer's Maintenance Planning Document (MPD).
  - c. Escalation Program: This is a process that allows for the extension of maintenance task limits under specific circumstances and the Escalation Program should not be used to compensate for scheduling problems or mismanagement. It's intended for legitimate cases where extending a limit is necessary and justified.
5. A-Check Scheduling:
- a. A-Checks should be scheduled at least 90% of their prescribed intervals, unless early compliance is justified for economic or scheduling reasons.
  - b. Early compliance is not allowed for structural inspections or sampling based on threshold limits.
  - c. Planned maintenance requiring over 4 hours of ground time should be planned a month in advance.



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- d. Combined A-Checks should have a maximum of 200 flight hours for either A-Check to avoid grounding the aircraft twice in one month.
- e. An A-Check added to the package, after accomplishing the previously planned A-Check, shall be reissued, and accomplished again.
- 6. Calendar tasks that become due during maintenance shall be done only once, i.e., basic A-Check can be done and signed off once (one maintenance task card only). However, the two task cards must have been issued when accomplishing and complying with the two A-Checks planned beforehand.
- 7. Schedule of accomplishment of the task cards of the two A-Checks planned to be done simultaneous with the C-Checks shall be in accordance with the work package.
- 8. Date of accomplishment of each maintenance task card shall be the date the task was performed.
- 9. No aircraft shall be operated with overdue maintenance requirements.

## 3.2.2.3 Responsibilities

- 1. Maintenance Planning:
  - a. Scheduling and Compliance:
  - b. Monitors and schedules aircraft maintenance checks and other on-wing requirements per the Aircraft Maintenance Program (AMP), instructions, and bulletins.
  - c. Tracks maintenance checks, breakdown requirements, and coinciding maintenance needs.
  - d. Maintains records of last compliance data for inspection and maintenance tasks (date, total time, cycles).
  - e. Issues required work documents (task cards, job cards, worksheets) for scheduled and unscheduled maintenance.
  - f. Ensures availability of resources for maintenance tasks (skills, parts, tools, grounding time).
  - g. Initiates Short-Term Time Escalation requests for tasks exceeding scheduled limits.
  - h. Initiates and ensures rectification of aircraft service life discrepancies.
  - i. Record Keeping:
    - i. Safekeeps maintenance records according to GMM.
    - ii. Records aircraft utilization (FH/FC) based on ATL for each flight sector.
    - iii. Maintains running service time and records of maintenance checks accomplished.
- j. Maintenance Review and Improvement:
  - i. Reviews aircraft reliability performance with Engineering.



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- ii. Specifies supplementary maintenance actions at defined limits.
- iii. Issues EOs approved by Technical Services.
- iv. Issues maintenance work packages for compliance.
- v. Proposes revisions to the Aircraft Maintenance Program (AMP).
- vi. Ensures time-controlled components are replaced before RTS.
- vii. Ensure technical publication references are attached to task cards.
- viii. Monitors and controls all scheduled inspection and maintenance checks.

2. Quality Inspection:

- a. Inspection and Sign-Off:
  - i. Ensures all inspection items are properly accomplished and signed off before RTS.
- b. Final Review:
  - i. Performs a final review of A-Check and higher work packages before archiving for completeness and correctness.

3. Quality Assurance:

- a. Performs random audits of completed work packages.



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## 3.2.3 Maintenance Schedule Forecast and Planning

### 3.2.3.1 Introduction

1. To provide a comprehensive overview of upcoming maintenance tasks for a three-month period.
2. To ensure timely compliance with maintenance requirements.
3. To optimize resource allocation and minimize aircraft downtime.

### 3.2.3.2 Scope:

Forecasting of maintenance requirements for the upcoming three months, including various maintenance activities (letter checks, out-of-phase work, engineering publications, service bulletins, component replacements, deferred defects, and other maintenance).

### 3.2.3.3 Policies

1. Three-Month Maintenance Schedule
  - a. Forecast Issued monthly, covering the most current three-month period.
  - b. Schedule Preparation:
    - i. Maintenance Planning Forecasts Compliance: Predicts the next maintenance compliance for three months for all aircraft maintenance activities.
    - ii. Maintenance Planning Prepares Schedule: Develops a Three-Month Maintenance Schedule that considers:
      - 1) Balancing production workload to avoid capacity issues.
      - 2) Minimizing or eliminating grounding overlap.
      - 3) Optimizing ground time.
      - 4) Adhering to aircraft operating time limits.
      - 5) Ensuring timely release of aircraft.
      - 6) Utilizing a 90% aircraft utilization factor in compliance dates when necessary.
      - 7) Incorporating due dates for additional tasks (EOs, Alert SB/ADs, Time Controlled Parts).
  - c. Schedule Distribution and Feedback:
    - 1) The proposed schedule is shared with relevant Riyadh Air departments for input.
    - 2) Departments have one week to submit comments and justifications to Maintenance Planning.



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- d. Schedule Finalization:
  - i. Maintenance Planning finalizes the schedule within one week of receiving feedback.
  - e. The prepared schedule shall aim to balance efficiency, safety, and compliance with maintenance requirements within a three-month timeframe.
  - f. It involves collaboration between Maintenance Planning and other departments to ensure alignment and operational feasibility.
- 2. Four (4) Week Scheduling and Layover Planning
  - a. Unscheduled groundings negatively affect dispatch reliability, on-time performance, and customer satisfaction. Maintenance Scheduling and Layover Planning processes involve aligning maintenance activities with flight schedules to minimize disruptions and ensure aircraft availability.
  - b. Key Points to be considered
    - i. Minimizing unscheduled groundings to maintain reliability, on-time performance, and customer satisfaction.
    - ii. Necessity of adhering to prescribed maintenance intervals or fixed limits.
    - iii. Mandatory prioritization of ADs as per regulatory requirements.
    - iv. Minimizing simultaneous groundings to ensure fleet availability.
    - v. Balanced maintenance scheduling to prevent capacity overload or underutilization of resources.
    - vi. Advance planning and fixing of start and completion dates for heavy maintenance activities.

## 3.2.3.4 Procedure

- 1. Maintenance Planning:
  - a. Provides additional workload forecasts (periodic, EO, etc.)
- 2. MCC (Maintenance Control Center):
  - a. Creates an initial draft 4-week maintenance schedule, incorporating additional workload.
  - b. Coordinates with Maintenance Planning for at least 3 days.
  - c. Schedules a Layover Meeting to finalize the 4-week layover plan.
  - d. MCC reflects the final schedule in the Aircraft Scheduling System.
  - e. MCC distributes the final 4-week maintenance schedule to all concerned parties for implementation.



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*Note: Committed schedule (first week) becomes the basis for implementation, while the fourth week serves as a forecast.*

3. Communication and Adjustments:
- Maintenance Planning advises MCC of potential delays in target completion dates.
  - MCC provides OCC (Operations Control Center) with the next 1-week maintenance schedule, including agreed-upon layovers.
  - MCC coordinates with OCC via email for schedule changes.

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## 3.3 ENGINEERING SERVICES

### 3.3.1 Airworthiness Directive Management Program

GACAR § 121. app g II G, m

#### 3.3.1.1 Purpose

An AD is a mandatory instruction issued by regulatory authorities when a potential safety hazard is identified in specific aircraft, engines, or appliances. It outlines required inspections and details the conditions under which these products can safely continue operation.

The core objective of Riyadh Air's AD Management Program is to guarantee that: No aircraft, engine, or appliance flies in violation of an Airworthiness Directive (AD).

#### 3.3.1.2 Responsibility

The Engineering (CAMO) Department takes full ownership of the AD Management Program, overseeing its control and quality assurance. Their dedication ensures consistent compliance with all prescribed inspections, modifications, and operational limitations outlined in each AD.

#### 3.3.1.3 Authority

The VP Engineering and Maintenance (DOM) is the person who can suggest changes to Riyadh Air policies related to the AD Management Program procedure.

#### 3.3.1.4 Procedures

1. By adhering to following comprehensive procedures, Riyadh Air ensures consistent compliance with AD requirements, upholding the highest airworthiness standards, and prioritizing the safety of aircraft and its occupants.
  - a. Adherence to AD Requirements:
    - i. No aircraft, engine, propeller, or appliance shall operate while non-compliant with applicable ADs.
    - ii. All received ADs, regardless of communication method, must be processed and acted upon.
    - iii. New and revised AD listings will be obtained bi-weekly. Technical Services will translate ADs, and Emergency ADs into Engineering Orders (EOs).
  - b. AD Applicability Review:



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- i. Technical Services will review all ADs for applicability. If applicable, the Engineering Department will issue an EO addressing the AD instructions.
- ii. Document Assessment Report (DAR Form: RXI/OPS-MNT-MT109): Technical Services will document the AD review in the DAR. After Engineering review, the DAR will be submitted to relevant Riyadh Air departments for compliance.
- iii. Non-applicable ADs: For non-applicable ADs, Technical Services will complete the AD Biweekly Form and forward it to Maintenance Planning for aircraft record updates.
- c. AD Summary Report:
  - i. Riyadh Air will maintain an individual AD Summary Report for each aircraft, covering airframe, engines, APU, and appliances.
  - ii. The AD Summary List will detail each AD by number, revision, effective date, subject, last action, compliance method, and status.
  - iii. Technical Services will gather information from completed AD documentation and update the relevant AD Summary Report.
- d. AD Accomplishment and Responsibility:
  - i. All ADs must be accomplished according to this GMM.
  - ii. All work and documentation must be completed by Riyadh Air or the maintenance contractor in compliance with Riyadh Air procedures.
  - iii. Whatever the terms of the contract with another maintenance provider, Riyadh Air is still the primary airworthiness authority for the compliance of ADs.
  - iv. An AD compliance record sheet will be used to track AD accomplishments.
  - v. Documentation for completed ADs must state the AD number, revision number, and accomplished paragraph(s).
  - vi. Technical Services will review all in-check aircraft for completed ADs and issue appropriate work scopes.
- e. Emergency AD Procedures:
  - i. Upon receipt by Technical Services, Emergency ADs will be treated immediately. The DOM will be notified instantly. Maintenance will follow expedited procedures to comply within the prescribed timeframes.
- f. Alternate Means of Compliance (AMOC):
  - i. When necessary and allowed by the AD, Riyadh Air will submit AMOC approval requests to the GACA authorities, including the state of manufacture, by providing the necessary details.



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- ii. ADs for aircraft or products will be prescribed based on the State of Type Certification on which Type Acceptance Certification rests.

## 3.3.1.5 Controls

1. Tracking Completed, Terminated, and Non-Applicable ADs:
  - a. AD Summary Report:
    - i. Upon completion of a one-time AD action, termination of an AD, or verification of non-applicability, document the details in the AD Summary Report.
    - ii. AD Summary Report Include:
      - 1) Aircraft, engine, propeller, or appliance identification.
      - 2) AD number and revision date.
      - 3) Date and type of action performed (completion, termination, non-applicability).
      - 4) Reference to relevant documents (e.g., maintenance records, GACA approval letter).
    - iii. Update the AD Summary Report regularly to reflect the current status of all ADs.
  2. Superseding ADs:
    - a. When a previously non-applicable AD is revised and becomes applicable:
      - i. Evaluate the new AD to determine its impact on the affected aircraft.
      - ii. Enter the new AD into the AD Summary Report for compliance tracking.
      - iii. Obtain and file the GACA approval letter for the revised AD.
  3. Tracking Recurring ADs:
    - a. Maintenance Planning does the following tasks:
      - i. Generate and maintain an Engine and Airframe AD Summary List for each aircraft.
      - ii. Track recurring ADs on the AD Summary Lists, including:
        - 1) AD number and revision date.
        - 2) Next compliance date or interval.
        - 3) Required action(s).
        - 4) Reference to relevant documents (e.g., GMM, AD text).
      - iii. Issue maintenance reports as stated in the procedures to alert personnel of upcoming AD actions.
      - iv. Incorporation into Scheduled Maintenance:



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1) Review repetitive ADs with inspection requirements compatible with scheduled maintenance checks.

2) Identify opportunities to incorporate such ADs into the relevant maintenance checks to improve efficiency.

3) Ensure all repetitive ADs integrated into scheduled maintenance are properly documented and tracked.

## 4. Parts Transfer or Robbery:

- a. Strictly adhere to the procedures outlined in the GMM for parts transfer or robbery.
- b. Ensure proper documentation and record keeping throughout the process.
- c. Riyadh Air Maintenance or the designated Maintenance Provider shall forward copies of all parts transfer or robbery forms.
- d. The Maintenance Provider will:
  - i. Determine if any AD actions are related to the transferred or robbed parts.
  - ii. Create a plan of action for addressing any relevant ADs.
  - iii. Transfer all pertinent records, including total hours/cycles/calendar since last AD compliance (if applicable), to the respective aircraft's AD file.
  - iv. The arrangement with Maintenance Provider for accomplishment of ADs is in accordance with the policies and procedures of the GMM.

### 3.3.1.6 Process Measurements

#### 1. Annual Review of the AD Management Program Process by QA:

- a. Verifies that AD actions are completed on individual aircraft as required.
- b. QA should systematically sample aircraft records throughout the year to ensure adequate coverage.
- c. The audit should assess:
  - i. Timely completion of AD actions within applicable deadlines.
  - ii. Correct performance of required tasks based on AD instructions and GMM procedures.
  - iii. Proper documentation of AD accomplishment in aircraft records.



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## 3.3.2 Service Bulletins

GACAR § 121. app g II G (l)

### 3.3.2.1 General

1. Initial Review and Action:
  - a. Technical Services conducts the initial review of all SBs.
  - b. Any immediate action required based on the SB is promptly initiated.
2. Periodic Review and Determination:
  - a. During the CASS program review (Reliability) and based on operational experience, Riyadh Air reviews all SB options for potential future action.
  - b. Technical Services completes and approves the Document Assessment Report (DAR) Form: RXI/OPS-MNT-MT109 following this review.
3. SBs associated with AD compliance are identified, reviewed, verified, and tracked as per the GMM procedures.
4. SBs marked as "Rejected" require no further review.
5. Engine SBs are reviewed by the Powerplant Engineer and acted upon as necessary.
6. Accomplishment of SBs, STCs, Major Repairs, or Alterations affecting check/inspection times or content are forwarded to the VP Engineering and Maintenance (DOM).
7. Alert SBs and Mandatory SBs are treated with the same priority and urgency as Airworthiness Directives (ADs).



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## 3.3.3 Engineering Order

GACAR § 121. app g II G (l)

### 3.3.3.1 Introduction

Engineering Orders (EOs) are authorizing documents used to implement modifications, repairs, and inspections on aircraft, engines, components, and software.

These covers Authorizing mandatory or non-mandatory modifications, repairs, and inspections. Documenting additional inspections/maintenance after major/minor repairs or modifications. Defining requirements for support groups within Riyadh Air

Initiation:

1. EO is generated as a result of Airworthiness Directives (ADs) issue, Civil Aviation Authority (CAA) requirements, manufacturer's Service Bulletins (SBs) or Service Letters (SLs) implementation, requests from VP Engineering and Maintenance (DOM), or reliability outcomes.
2. EOs are processed by Technical Services.
3. Non-mandatory inspections/modifications may be initiated if found acceptable after impact assessment.

### 3.3.3.2 Key Elements

1. **EO Generation:**
  - a. Manufacturers of aircraft, engines, and components regularly publish service documents that may recommend modifications to enhance performance or reliability.
  - b. If a recommended modification hinges on a Supplement Type Certificate (STC) that Riyadh Air does not possess, obtaining written consent from the STC holder is a prerequisite. Prior to issuing an Engineering Order (EO) for such a modification, Riyadh Air must furnish a copy of both the STC and the STC holder's consent.
  - c. EOs are processed by Technical Services.
  - d. EOs often stem from other documents, called source documents, which must be referenced in the EO. Examples include SBs, ADs, reliability items, manufacturer's emails, etc.
2. **EO Revisions:**
  - a. Follow the same approval and distribution process as original EOs.
  - b. Issued in their entirety, with revisions documented in the Record of Revisions section.
3. **Cancellation of an Engineering Order (EO):**
  - a. Is a distinct process that involves:



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- i. The revision that cancels the EO must explicitly state the reason for cancellation.
- ii. Cancellation effectively nullifies the authorization for the actions specified in the original EO.
- iii. In some cases, it may mandate restoring any completed work to its pre-EO configuration.
- iv. If the goal is to halt a modification without reversing completed work, a revision is issued to restrict accomplishment to the items already finished. This is typically achieved by revising the EO's effectiveness.
- v. Cancellation can also occur when the procedures outlined in the EO become integrated into the manufacturer's manuals, such as the CMM or AMM, rendering the separate EO redundant.

## 4. Non-Mandatory EOs:

- a. Requests for extension beyond the due date may be made for non-mandatory EOs due to:
  - i. Unavailability of required materials or tools (with supporting proof).
  - ii. Unforeseen circumstances deemed unavoidable by Riyadh Air.
- b. Approved extension requests must be attached to EO task cards or check sheets.

## 5. Documentation and Coordination:

- a. All pertinent documents, including certifications and approvals, must be included in the EO.
- b. Planned embodiment and compliance of EOs affecting aircraft configuration or other departments procedures must be coordinated accordingly.

### 3.3.3.3 Procedures

This section outlines the different procedures for handling Engineering Orders (EOs) in Riyadh Air, categorized by their origin and mandatory/non-mandatory nature.

1. Mandatory Engineering Orders are
  - a. Handled similarly to Airworthiness Directives (ADs) as described in Section 3.3.1.4 as appropriate.
2. Non-mandatory Engineering Orders (EOs)
  - a. This section appears to detail the procedure for handling non-mandatory Engineering Orders (EOs) based on documents issued by the aircraft manufacturer or component vendors. Here's a breakdown of the key points:
    - i. Approved Modifications:



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- 1) If the aircraft manufacturer has initiated a modification and it has been approved by the CAA of the manufacturer's country, it is automatically accepted for implementation on the relevant aircraft series.
  - 2) Note: No deviations from the modification are allowed.
- ii. Unapproved Modifications:
- 1) Documents from the aircraft manufacturer or component vendor that haven't been approved by the respective CAA need further evaluation before processing through an EO.
3. Evaluation and Policy:
- a. These documents will be handled according to the policy outlined in the General Maintenance Manual (GMM).
  - b. This policy likely specifies the evaluation process, including potential cost-benefit analysis and technical assessments based on in-service experience.
4. Filing and Review:
- a. Documents deemed not applicable or not suitable for implementation will be filed for future reference.
  - b. These documents will be reviewed again one year after filing to re-evaluate their potential value.
5. Time-Controlled Orders from Vendor Documents
- a. Riyadh Air's GMM stipulates the procedure for handling Engineering Orders (EOs) generated from vendor documents and classified as time-controlled.
  - b. Sources of Time-Controlled Orders:
    - i. These EOs can originate from various sources, each aiming to improve aircraft safety and reliability:
      - 1) Reliability Studies: These studies analyze in-service data to identify potential issues and recommend preventative measures, often in the form of time-controlled modifications or inspections.
      - 2) Mandatory Repairs/Inspections: These actions may be mandated by the aircraft manufacturer, the relevant Civil Aviation Authority (CAA), or other regulatory bodies to address known safety concerns or airworthiness issues.
      - 3) Equivalent Sources: This category encompasses any document necessitating a time-controlled action on the aircraft, such as service bulletins issued by the manufacturer or manufacturer alerts highlighting potential problems requiring prompt attention.



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c. Data Approval References:

- i. When implementing these time controlled EO's, Riyadh Air strictly adheres to the established procedures and data references outlined in the GMM's major/minor repairs or modification policy. This policy serves as the guiding document, specifying:
  - 1) Acceptable sources of data, such as approved service manuals, manufacturer instructions, or relevant technical publications.
  - 2) Specific procedures for implementing repairs, modifications, and inspections associated with time controlled EO's.
  - 3) Quality control measures to ensure proper execution and adherence to the approved data.

### 3.3.3.4 Responsibilities

1. Maintenance / Contracted Maintenance Provider Responsibilities:
  - a. Compliance: Maintenance personnel are responsible for fully carrying out the requirements outlined in the EO or any equivalent engineering documentation.
  - b. Documentation: They must accurately complete all associated accomplishment documents and promptly transmit them to Production Planning and Control within the specified timeframe, either after completion or approval of the product for return to service (whichever occurs later).
  - c. Compliance Extensions: If compliance with an EO extends beyond its due date, Maintenance must request an extension with written justification and supporting documents. This request should be submitted to the VP Engineering and Maintenance (DOM) at least 15 working days before the due date, unless unplanned operational requirements necessitate a shorter notice period.
2. Technical Services Responsibilities:
  - a. Source Document Review: Technical Services are tasked with meticulously reviewing all source documents for EO's and evaluating their relevance to the current condition of Riyadh Air's aircraft, operations, and in-service experience.
  - b. EO Accuracy and GMM Compliance: They must ensure the completeness and correctness of the EO and verify that all applicable GMM provisions are considered during its generation, approval, and reporting process.
  - c. Regulatory Form Completion: For minor/major alterations/modifications or major repairs, Technical Services must coordinate with QA to complete the required regulatory forms.
  - d. Compliance Monitoring and Reporting: They are responsible for diligently monitoring EO compliance and reporting it to the relevant aircraft manufacturers and component



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vendors as necessary. This ensures the currency of maintenance and operational documents.

## 3.3.4 ENGINEERING NOTIFICATION (EN)

### 3.3.4.1 General

An Engineering Notification is a formal document used for unscheduled inspections or maintenance needs on aircraft, engines, or components. It's for situations that don't involve significant physical changes or impact flight crew procedures. Consider it a heads-up for maintenance personnel to address specific issues without major modifications or operational adjustments.

### 3.3.4.2 Key Elements

1. ENs are formal documents that initiate unscheduled inspections or maintenance.
2. They do not involve major physical changes or operational procedure modifications.
3. Technical Services create and manage ENs.
4. Completion is recorded in logbooks, and ENs are archived.
5. ENs can apply to single or multiple aircraft.
6. Numbering ensures tracking and control.

### 3.3.4.3 Procedure

1. Scope and Numbering:
  - a. ENs can be issued for either a single aircraft or multiple aircraft, depending on the specific need.
  - b. Each EN is assigned a unique number for tracking and control purposes.
2. Origination and Creation:
  - a. Technical Services are solely responsible for initiating and creating ENs.
3. Completion and Record:
  - a. Upon completion of the EN's requirements, a logbook entry must be made to document the accomplishment.
4. The completed EN publication is then retained for filing and archiving purposes.



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## 3.3.5 Fuel and Oil Consumption Monitoring and Records

GACAR §§ 121.1537

### 3.3.5.1 Purpose

To monitor aircraft fuel and oil consumption, maintain accurate records, and generate data for Reliability Reports.

### 3.3.5.2 Policies

1. Always prioritize safety during maintenance procedures.
2. Refer to Task Cards or AMMs for specific instructions on maintenance activities.
3. Maintain accurate records of oil and fuel uplift for reliable data analysis.
4. Promptly address deviations in oil consumption.

### 3.3.5.3 Procedures

1. Oil Top-ups:
  - a. During aircraft arrival inspections, Maintenance Technicians perform engine oil top-ups after engine shutdown, following applicable AMM time limits.
  - b. Maintenance Engineers certify top-ups by verifying added quantities against AMM limits and recording them in the ATL.
2. Fueling:
  - a. Fueling operations comply with Fueling and Defueling Manual and applicable AMMs.
  - b. Maintenance Engineers check added fuel quantities and record them in the ATL.
3. Engine Run-ups and APU Operations:
  - a. Fuel quantities before and after ground-based engine run-ups or APU operations are recorded in the Aircraft Technical Log.
4. Data Input:
  - a. Technical Records input oil top-up quantities into the AMOS System for oil consumption analysis.
5. Monthly Reports:
  - a. Reliability Engineers prepare monthly oil consumption reports with recommendations and distribute them via email.



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## 3.3.5.4 Responsibilities

1. Reliability Engineer: Monitors engine and APU oil consumption, acts on deviations, and prepares monthly oil consumption reports.
2. Maintenance Technicians: Perform oil top-ups, refueling, and other maintenance tasks per Task Cards or AMMs, adhering to safety policies.
3. Maintenance Engineer: Certifies oil top-ups, checks added fuel and oil quantities, and records them in the ATL.
4. Technical Records: Inputs oil top-up quantities into the AMOS System for oil consumption analysis.

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## 3.4 TECHNICAL RECORDS

### 3.4.1 Aircraft Records and Time Control

GACAR § 121.663, 121. APP G II D (1)

#### 3.4.1.1 Policy

Serial numbers enable Riyadh Air to track the usage and maintenance history of time-controlled components, ensuring they are replaced within their prescribed lifespans to maintain safety and airworthiness.

These procedures comply with the General Authority of Civil Aviation (GACAR) regulations for time control of aircraft components.

Serial numbers aid in inventory management and efficient tracking of parts, ensuring the availability of necessary components for maintenance.

#### 3.4.1.2 Procedure

1. Mandatory Serial Numbers:
  - a. Every new time-controlled component (those with specified lifespans based on usage or time) must have a unique serial number.
  - b. This serial number is recorded on all relevant maintenance documentation.
2. Serial Number Assignment:
  - a. If a component arrives without a serial number, the logistics-Receiving Section assigns one.
  - b. They maintain a master control log to track all serial numbers issued.
3. Serial Number Format:
  - a. Newly issued serial numbers follow the format "RXI-XXXX," where "RXI" is a fixed prefix and "XXXX" is a sequential four-digit number starting from 0001.
  - b. No serial numbers are ever repeated.
4. Computerized Database:
  - a. The computerized database doesn't automatically generate serial numbers.
  - b. Data entry relies on the master control log to ensure accuracy.
5. Part Marking:
  - a. Serial numbers are permanently etched or indelibly marked on the components in a way that doesn't compromise their serviceability.



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## 3.4.1.3 Master Time Log

1. Riyadh Air employs a computerized database system (AMOS) to track and maintain records of aircraft airframe and engine total hours and cycles in service.
2. The Production Control Center (PCC) receives a white copy of the Aircraft Technical Log (ATL) after each flight.
  - a. PCC personnel meticulously update the computerized database with the flight airframe/engine total hours and cycles from the ATL.
3. The database serves as the central repository for the Master Time Log, holding comprehensive aircraft time and cycles data.
4. Authorized personnel can access and view aircraft time and cycle information through the AMOS database.

## 3.4.1.4 Record System

1. Maintenance records are updated regularly in the computerized database system (AMOS).
2. The system flags components with specific lifespans or usage limits that might expire before the next scheduled overhaul, ensuring timely attention.
3. AMOS Tracks all life-limited or hard time item installed in a particular airframe, engine, or appliance.
4. AMOS generates various reports for planning and oversight:
  - a. Scheduled Maintenance Status Report: Tracks progress of scheduled maintenance tasks.
  - b. Hard Time Component Status Report: Monitors components with usage-based lifespans.
  - c. AD Summary (Airframe, Engine, Appliance): Summarizes outstanding Airworthiness Directives (mandatory safety-related modifications).
  - d. Life Limited Parts Report (Engines and Landing Gears, etc.): Focuses on parts with fixed lifespans, like engines and landing gears and other components installed on particular aircraft.
  - e. AMP Last Done and Next Due Report: Details completion dates and upcoming deadlines for maintenance tasks based on Aircraft Maintenance Program (AMP)
  - f. Major Alteration/ Repair: A list of each engine, airframe, and appliance.
5. Record Handling:
  - a. Serviceable Tags and maintenance worksheets with component change entry are forwarded to Production Control Center (PCC) for record updates.
6. Completed documentation is archived in Technical Records for future reference.



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## 3.4.2 Basic Signature Policy

GACAR § 121.1545

### 3.4.2.1 Purpose

This section outlines Riyadh Air's Basic Signature Policy, which adheres to GACAR regulation § 121.1545 and focuses on positive identification of personnel performing maintenance on their aircraft.

### 3.4.2.2 Policy

1. A signature on relevant document acts as a certification for the following:
  - a. The work performed adhered to the prescribed procedures and instructions in the GMM and manufacturer's manual.
  - b. Authorized inspectors identified and inspected all RII and other relevant inspections, and the work was satisfactorily completed.
  - c. There are no known issues that would compromise the aircraft's airworthiness.
  - d. Based on the completed work, the aircraft is safe for operation.
  - e. The signatory understands the signed-off task and used current manual revisions from the manufacturer. This revision number/date is recorded in the ATL.
  - f. The maintenance provider follows Riyadh Air's specific procedures. The Quality Department must ensure that their employee listing system allows retrieval of the name of the specific individual who performed the work.

### 3.4.2.3 Procedures

1. General Sign-Off Requirements:
  - a. Inspection and maintenance personnel must sign off on all ATLs, ACLs, work orders, non-routine cards, and forms using their:
    - i. Authorization/stamp number
    - ii. Signature or initials
    - iii. Date (in DD/MMM/YY format)
  - iv. Signoffs must be legible (print or capital letters) using black or blue ink ballpoint pen. Pencils and correcting fluid are prohibited.
  - v. Handwritten authorization/stamp numbers are only acceptable if the issued stamp is reported to QL as lost or damaged.
2. Additional Requirements for Release to Service:



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- a. Certificates of Release to Service or Return to Service require the above information plus the AOC/AMO approval number.
3. Sign-Off Dating:
  - a. Each task/document requiring sign-off must be individually signed and dated.
  - b. However, a single date can be used for a group of signoffs with the same date, as long as they are bracketed to indicate completion on the same day.
4. Sign-Off Authority:
  - a. Certificated Repairmen (Avionics Technician/Engineer and Sheet Metal) can only sign off on work within their employment and certification scope listed on their Authorization Card.
  - b. Certificated Mechanics (Technician/Engineer) can only sign off on work within their employment and certification scope listed on their Authorization Card.
  - c. Assistant Mechanics working under supervision can sign off on the lower part of the corrective action block of ATLs and ACLs and adjacent to Non-Routine Card or Work Order sign-off blocks, but their work must be countersigned by a Certificated Mechanic or Repairman.
5. Authorized Inspectors can only sign off on work within their employment and certification scope listed on their Authorization Card.

## 3.4.3 Aircraft Technical Records and Its Completion

GACAR § 121.1541

### 3.4.3.1 Introduction

Riyadh Air utilizes a comprehensive aircraft maintenance record-keeping system that combines electronically stored data, physical logbooks, and designated departments responsible for data entry, document control, and archiving.

Aircraft, engine, and component records, including total time in service, last overhaul dates, and inspection dates crucial for determining serviceability and operating life, are updated daily/weekly/upon completion of maintenance.

As a company policy, all aircraft records must be written in English to ensure compliance with international regulations and facilitate clear communication across different personnel and organizations.

### 3.4.3.2 Procedure

1. Aircraft documents required to be on board are:



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- a. AOC - Certified True Copy.
- b. Operations Specifications – Copy.
- c. Certificate of Registration (C of R) - Original or Certified True Copy.
- d. Certificate of Airworthiness (C of A) - Original or Certified True Copy (including Noise characteristics).
- e. Aircraft Radio License - Original or Certified True Copy.
- f. Certificate of Insurance (COI) - Original or Copy.
- g. ATL.
- h. ACL.

*Notes: MEL, AFM and WBM/Weighing Reports are uploaded in the flight crew EFB.*

2. Maintenance and inspection personnel, including those from contracted providers, must use forms and task cards that:
  - a. Outline acceptable methods, techniques, and practices. These procedures should be detailed enough to ensure all maintenance and inspection requirements are met and avoid any mistakes.
  - b. The instructions should be clear and easy to understand, and they should be presented in a way that allows maintenance and service personnel to perform their duties effectively and achieve consistent, high-quality results.
3. Maintenance Task Cards and Forms:
  - a. These forms or task cards provide precise methods, tools, and materials for each maintenance task.
  - b. When these forms are properly filled in and signed, they confirm complete and accurate maintenance, ensuring airworthiness.
  - c. These forms must be used and followed for every repair, replacement, or adjustment on the aircraft.
  - d. If unexpected findings arise, an additional non-routine card or NR log sheet may be used to document them.
4. Marking Tasks Not Performed:
  - a. If a task is not applicable, mark it "N/A" in the technician's column and affix signature and authorization number or stamp besides the N/A. The reason for the N/A item shall be noted accordingly.
  - b. For certain tasks not done, approval from a designated inspector might be required.



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- c. For RII item not to be performed due to being N/A, the concurrence of the Delegated Inspector or QI Inspector shall be obtained.
    - i. An inspector or authorized RII personnel must stamp their approval next to the N/A marking in the inspector's column.
    - ii. At line stations, Inspector approval is not needed for items deemed N/A to that specific station's scope of work.
  - d. Ensure all markings and approvals are clear and easily identifiable.
5. Maintenance work must be performed by approved instructions:
- a. No repairs, replacements, or adjustments are allowed on any aircraft parts or systems without using the specific maintenance task cards and work orders that outline the approved procedures.
  - b. Completed task cards must be attached to the aircraft's maintenance records to document the work done.
6. Handwritten record entries must be legible and permanent using blue or black ballpoint pen. Erasures are not allowed. Corrections can only be made by the person who made the original entry or their immediate supervisor and should be indicated by crossing out the incorrect information with a single horizontal line, writing the correct entry above, and signing or stamping next to the correction.
7. Aircraft Fault Messages Recording.
- a. Post Flight Report (PFR) recording of fault messages that cannot be cleared, will be entered in the ATL.

## 3.4.3.3 Responsibilities

1. Engine/APU/Component Replacement:
  - a. Maintenance and Inspection Personnel:
    - i. Record related to On-Wing Maintenance Action; Work Order creation or Flight Remarks of Engine/APU and unit replacement, including troubleshooting action.
    - ii. Complete required removal and installation task card of Engine, APU, and components provided by PCC.
    - iii. Accomplish Engine Run Test using applicable forms for recording engine parameters.
    - iv. Record any discrepancies encountered during the process for future reference and safety, including results of borescope inspections (BSI) documented using task cards, the ATL, NR log sheets, and relevant forms.



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- v. Complete required serviceable or unserviceable tag for removed Engine, APU, or components.
- 2. Aircraft Maintenance Check:
  - a. Maintenance and Inspection Personnel:
    - i. Accomplish and comply with maintenance task cards, required forms, and checklists.
    - ii. Control and consolidate completed task cards/checklists through assigned work order.
  - b. PCC:
    - i. Evaluate all task cards for completeness and discrepancies before sending to Technical Records.
    - ii. Return any discrepant task cards to Maintenance.
- 3. ATL/ACL:
  - a. PCC: Replenish stock and issue logbooks.
  - b. Maintenance: Ensure spare ATL/ACL availability and detach completed copies.
  - c. Personnel using ATL/ACL: Immediately report lost or damaged logbooks to MCC.



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## 3.5 MAINTENANCE CONTROL

GACAR § 121. app g II G (i)

### 3.5.1 Minimum Equipment List (MEL) Extension

#### 3.5.1.1 Introduction

To grant extensions for Category B and C MEL items under specific circumstances (parts shortage, tooling shortage, events beyond Riyadh Air's control).

#### 3.5.1.2 Scope:

Extensions of Category B and C MEL items only, not overdue or recurring items.

#### 3.5.1.3 Key Elements

1. Extension request is applicable for Category B and C MEL items only, not overdue or recurring items.
2. One extension per item per aircraft, not exceeding the maximum time limit in the applicable MEL category.
3. All requests must be supported by documentation, and efforts to rectify the discrepancy must be made.
4. A copy of the 1st MEL Extension Approval must be carried onboard the aircraft.

#### 3.5.1.4 Procedure

1. Extension request initiated by MCC to QI at least 2 working days before the MEL repair interval due date.
2. All requests must be supported by documentation, and efforts to rectify the discrepancy must be made.
3. The following documents shall be submitted to QI for review.
  - a. Completed MEL Request Form (Form no: RXI/OPS-MNT-MT117)
  - b. Copy of Aircraft Technical Log.
  - c. Copy of MEL reference.
  - d. Proof of Part Purchase Order or Exchange Order.
  - e. Proof of Payment request to Finance.
4. QI evaluates documentation and requests SADAD bill from GACA Finance if complete.



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5. Required documents uploaded to GACA Online Portal.
6. GACA PMI notified for approval of the MEL 1st Extension application.
7. Upon GACA approval, QI issues approval letter to MCC.
8. Payment settled with GACA Finance within one week of approval.
9. GACA PMI and MCC notified of payment settlement. MCC coordinates with OCC via email for schedule changes.

## **3.5.1.5 Responsibilities:**

1. MCC: Ensure requirements are met before requesting extension.
2. Line Maintenance: Place approval letter onboard the aircraft.
3. Purchasing-AOG: Create purchase/exchange order and update MCC on parts status.
4. Finance: Settle SADAD bill and send payment confirmation to QI.
5. QI: Submit extension application and proof of payment to GACA, conduct document evaluation, and submit for approval.



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## 3.5.2 Recurring or Repeated Flight and Ground Discrepancies

GACAR § 121. app g II G

### 3.5.2.1 Purpose

To proactively address recurring aircraft discrepancies, reducing redundant repairs and unnecessary costs.

### 3.5.2.2 Scope

This applies to all Riyadh Air operated aircraft.

### 3.5.2.3 Key Definitions

1. Maintenance Action: Corrective action according to approved data.
2. Recurrence: Repeated discrepancy after maintenance.
3. Alert Level: Severity based on recurrence frequency.

### 3.5.2.4 Policies

1. Alert Levels:
  - a. ALERT 1: 2 similar discrepancies in 15 days.
  - b. ALERT 2: 4 similar discrepancies in 15 days.
  - c. ALERT 3: 5 or more similar discrepancies in 15 days.

*Aircraft Release Approval: Required from MCC or VP Engineering and Maintenance (DOM) for RTB, FTB, or recurring discrepancies.*

*Alert Level Maintenance: Highest level attained is maintained if the discrepancy recurs in subsequent 15-day periods. Resets to zero if no recurrence within 15 days.*

*RTB/FTB Escalation: Automatically elevated to Alert Level 1.*



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## 3.5.2.5 Procedures

ALERT LEVEL	OCCURRENCES	RESPONSIBLE	ACTION
NONE	1	MCC	<ul style="list-style-type: none"> <li>1. *Performs troubleshooting on flight and ground remarks in accordance with approved and/or accepted data (FIM, TSM, AMM, SRM, etc.).</li> <li>2. *Monitors flight and ground remarks regularly.</li> <li>3. *Provides substantiating data for all LRUs removed from the aircraft in the process of correcting a defect. Monitors movement of the LRUs.</li> </ul> <p>*Applicable to all alert levels.</p>
ALERT 1	2-3	MCC	<ul style="list-style-type: none"> <li>1. Issues Maintenance Action Request (MAR) (Form: RXI/OPS-MNT-MT135) and submits to PCC for the necessary work order prior to start of maintenance work.</li> <li>2. Issues notices/advisories by email to prevent aircraft from incurring delays or exposing the aircraft to unsafe conditions due to the recurring problem.</li> <li>3. Provides involved offices within Engineering and Maintenance with pertinent data and discuss contents of MAR for their comments/ recommendations.</li> <li>4. Based on recommendations, performs further research, analysis, and vendor consultation.</li> <li>5. Schedules compliance of recommendation in accordance with the requirement.</li> <li>6. Complies with recommendation to rectify recurring remarks.</li> <li>7. Provides feedback and data to all involved.</li> </ul>
ALERT 2	4	MCC	<ul style="list-style-type: none"> <li>1. Coordinate with Engineering Department to seek recommendation from the vendor.</li> <li>2. Schedules compliance of the vendor recommendation in accordance with the requirement.</li> <li>3. Complies with recommendation to rectify recurring remarks.</li> <li>4. Provides feedback and data to all involved.</li> </ul>
ALERT 3	5 and above	MCC and Maintenance	<ul style="list-style-type: none"> <li>1. Convenes a Task Group to review troubleshooting and maintenance actions done and come up with the root cause and final fix on the problem. The Task Group shall be composed of concerned personnel from (Company X), and other entities involved with the problem.</li> <li>2. Schedules compliance of Task Group recommendation.</li> <li>3. Complies Task Group recommendation to rectify recurring problem.</li> <li>4. Provides feedback and data to all involved.</li> </ul>

Table 13 Repeated discrepancies action requirements



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## 3.5.2.6 Responsibilities

1. MCC (Maintenance Control Center):
  - a. Continuously monitors recurrent remarks using AMOS (or equivalent backup system).
  - b. Directs corrective actions as needed.

Issues Maintenance Action Requests.
2. Licensed Mechanic who releases the aircraft:
  - a. Ensures correct AMM and TSM references are used for repairs.
  - b. Prints and signs off AMM references for part replacements or MEL (M) deactivation actions.

## 3.5.3 Hold Item List (HIL) Management Program

GACAR § 121. app g II G, P

### 3.5.3.1 Introduction

In the intricate world of airline operations, ensuring aircraft remain airworthy and flight-ready is paramount. This involves addressing discrepancies or defects encountered during flights, but not all require immediate rectification. A well-defined system exists for "deferral," allowing certain issues to be temporarily bypassed under specific conditions.

This deferral procedure is activated when two critical circumstances come together: limited time on the ground and a lack of rapid repair parts. However, this permission is based on a fundamental principle: the aircraft's airworthiness and passengers' safety must never be jeopardized. When a discrepancy fits these crucial conditions, it is termed a "HIL item" and is added to the aircraft's Hold Item List (HIL).

Not all inoperable systems are now treated identically. The Minimum Equipment List (MEL) serves as a watchdog, precisely documenting specific equipment that can be rendered inoperable under specified situations and restrictions without risking safety. Consider it a well selected list of "acceptable compromises." HIL items that fall into this category are labeled "MEL." Those not included on the MEL, on the other hand, are classified "non-MEL" and pose an instant "NO GO" issue, necessitating rapid repair before any further flight.

The Configuration Deviation List (CDL) adds an additional layer of complexity. This list focuses on a specific subset of missing pieces, outlining acceptable operating constraints in their absence. CDL items, like their MEL counterparts, are monitored and controlled via the HIL.

It is critical to understand that deferral is not an automatic permit. Each HIL component, whether MEL or CDL, has its own set of repair time constraints. These restrictions are methodically established based on the potential implications and risk of delay in the aircraft's approved MEL/CDL and technical manuals.



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Excessive use of these restrictions is a formula for disaster, putting both safety and regulatory compliance at risk.

To ensure everything runs smoothly, a robust system of checks and balances is in place. The Chief Pilot acts as the final arbiter in case of interpretational uncertainties regarding the MEL/CDL.

### 3.5.3.2 Policies

1. Discrepancy Identification and Categorization:
  - a. Check MEL/CDL before entering discrepancies as HIL items.
  - b. Categorize deferred discrepancies using the approved MEL.
2. Repair Time Limits or Categorization:
  - a. Category A: Repair in accordance with MEL dispatch conditions.
  - b. Category B: Repair within 3 calendar days (72 hours).
  - c. Category C: Repair within 10 calendar days (240 hours).
  - d. Category D: Repair within 120 calendar days.
3. Repair Deadline
  - a. Repair deadline: For Cat B the repair interval is 72 hours (3 consecutive calendar days) after the malfunction is recorded.
  - b. Timeline exclusion: The day of recording is not counted as part of the 72-hour period.
4. Repair window: Begins at midnight on the day following the recording and ends at midnight on the third day.

Example:

  - a. Malfunction recorded: 9 a.m. on January 01
  - b. Repair window starts: Midnight on January 01 (immediately following the day of recording)
  - c. Repair window ends: Midnight on January 04 (72 hours after the start of the window)

*Note: Same calculation logic is used for other Categories as well and all timings are in UTC*

5. Deferring Defects conditions:
  - a. Deferring defects is a last resort, not as a routine practice at Main Maintenance Base.
  - b. Exhaust all possible sources for parts and tools to meet MEL deadlines.
6. HIL Item Tracking and Management:
  - a. Riyadh Air maintenance should prioritize minimizing Workable HIL (resource-ready aircraft lacking ground time) and parts-related HIL (aircraft grounded due to unavailable parts).



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- b. MCC monitors HIL items and suggests solutions.
  - c. Track dates of date of each MEL/CDL/Non-MEL/NEF deferred items and repairs.
  - d. Coordinate deferred defect entries at outstations with MCC.
7. HIL Items and C-Checks:
- a. Riyadh Air maintenance must make every effort to reduce, if not completely remove, HIL items on aircraft that have passed C-Check or higher.
8. Reoccurring HIL Items:
- a. However, if the same HIL item re-occurs before completing the first leg, the HIL item still applies and continues to count.
  - b. If the same defect or HIL item reoccurs after completing the first leg and the aircraft is set to depart for outstation, this will be classified as a new HIL item.
9. Minor Defects:
- a. Evaluate and treat items not in MEL or CDL categories.
  - b. Repair other non-safety-related items according to GMM procedures.
  - c. Address NEF items promptly to maintain service quality.
10. Categories of Defects:
- a. NEF (Non-Essential Furnishing): Passenger convenience/comfort items, cargo handling/safety equipment, and emergency equipment not essential for safe flight
  - b. Other Non-MEL Items: Any aircraft equipment not impacting safety under operational conditions.
11. Actions for Each Category:
- a. NEF:
    - i. Update the NEF Deferral List section of the MEL if it's an "unlisted" item.
    - ii. Submit the updated list to GACA for approval.
    - iii. Refer to GMM [3.5.3.7](#) flowchart for guidance.
  - b. Other Non-MEL Items:
    - i. Repair according to GMM [3.1.3](#) (Managing Non-Routine Discrepancies).
    - ii. Follow deferred maintenance procedures in GMM [3.1.1](#) if applicable.
12. CDL and Missing Items:



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- a. The CDL defines approved missing items and instructions for handling them without compromising safety. Anything not covered by the CDL requires manufacturer's evaluation to ensure safe operation.
  - b. CDL is Part of the Aircraft Flight Manual (AFM). Provides illustrations and locations of items approved for missing while complying with the CDL instructions and limitations.
  - c. These items are NOT categorized in the MEL (Minimum Equipment List).
13. Missing Items classification:
- a. CDL Items: Allowed to be missing as per the CDL instructions and limitations. Maintenance actions and limitations related to these items must be followed.
  - b. Non-CDL Items: Missing items not listed in the CDL must be referred to the manufacturer for evaluation of their impact on airworthiness and safety.
  - c. Dispatch with certain missing parts per CDL limitations.
14. MEL Extensions:
- a. Grant extensions for Category B and C items per Operations Specifications Part D95.
15. Carry MEL Extension Authorization/Approval on board.
16. Support extension requests with documentation.
17. Maintenance at Outstations:
- a. When a deferral occurs at an outstation, the contracted maintenance provider documents it on the HIL Form and ATL/ACL, then collaborates with MCC to manage the situation until the defect is fixed. This ensures clear communication, comprehensive records, and adherence to safety regulations.
  - b. Defer "GO" items in coordination with MCC.
  - c. Repair defects when parts and ground time are available.

## 3.5.3.3 Management of Hold Item List Procedures

### 3.5.3.3.1 Key Elements

1. Clear communication and documentation are essential for effective HIL management.
2. MCC plays a central role in coordinating information and ensuring compliance with procedures.
3. Timely updates and notifications are crucial for maintaining safety and operational efficiency.

### 3.5.3.3.2 Procedure

1. Maintenance Personnel:



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- a. Maintenance personnel must inform MCC immediately when a defect is deferred using the HIL.
- b. A detailed ATL entry is required, including troubleshooting and work performed.
- c. A scanned HIL Notification Form RXI/OPS-MNT-MT100 must be sent to MCC, containing:
  - i. Discrepancy description and work done (with TSM or AMM references)
  - ii. ATL/ACL sequence number, station, and technician/engineer name
  - iii. Deferred defect reference (MEL, CDL, Non-MEL, NEF)

**Note:**

*An entry shall be made in the ATL or ACL for any maintenance work and checks required by the MEL when deferring a particular item.*

*Any re-inspections required shall be entered in the HIL Form.*

*The HIL Form shall include all required data, date, MEL/CDL/NEF reference, ATL/ACL sequence number, and description of defect.*

2. MCC Responsibilities:

- a. Record and transfer HIL Item information to Flight Dispatcher on Duty.
- b. Report all HIL Items (MEL/CDL) in the Daily Status Report (DSR) for each aircraft.
- c. Update the DSR and notify Flight Dispatch/OCC of any item identified under HIL in MEL/CDL manuals.
- d. Review other open items on the aircraft to ensure no conflicts exist.
- e. Comply with any special procedures identified in applicable MEL/CDL (M) actions.
- f. Record and transfer HIL Item information to Flight Dispatcher for Flight Release issuance.
- g. Maintain and update the DSR for each aircraft and send it to all concerned departments.
- h. Immediately notify Flight Dispatch of any item identified under MEL/CDL and review other open items to ensure no conflicts exist before applying HIL.

3. Flight Dispatch Responsibilities:

- a. Comply with any special procedures identified in applicable MEL/CDL (O) actions.
- b. Review all HIL Items identified by MCC for dispatch responsibility.
- c. Notify or brief the flight crew of any special procedures identified in MEL/CDL (O) actions.
- d. Advise MCC of the decision to accept any HIL Item for dispatch responsibility.



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RESPONSIBLE	ACTION
Maintenance	<ol style="list-style-type: none"> <li>Identifies the HIL category of defects (MEL/CDL/Non-MEL/NEF). Immediately inform MCC of the HIL item to be applied.</li> <li>Accomplish ATL/ACL entry and apply applicable HIL item.</li> <li>Record the defect in the applicable HIL form.</li> <li>Make a requisition/pick list for the required LRU. For Category D or non-MEL items, parts or tooling/equipment must be ordered within 15 days after the defect was noted in ATL/ACL.</li> <li>Immediately submit a copy of HIL Notification form RXI/OPS-MNT-MT100 to MCC.</li> <li>Encode all HIL items applied as recorded in the ATL/ACL to AMOS.</li> </ol>
Purchasing	<ol style="list-style-type: none"> <li>Create a PO, EO or RO for the affected aircraft based on the requisition received from maintenance.</li> </ol>
MCC	<ol style="list-style-type: none"> <li>Reviews the HIL Notification submitted by Maintenance and update Daily Status Report for monitoring.</li> <li>Advises Riyadh Air maintenance / contracted outstation line maintenance for any "M" action required.</li> <li>Encode all HIL items applied as recorded in the ATL/ACL to AMOS on deferred defects performed by contracted outstation line maintenance.</li> <li>Plans and implements the correction of items within the repair time limit.</li> </ol>
Maintenance	<ol style="list-style-type: none"> <li>If defect rectification will have impact on flight schedule: Request MCC for additional ground time.</li> <li>Reviews outstanding HIL or deferred maintenance items during Daily</li> <li>Check and transit flights prior to aircraft return to service to ensure there are no overdue items.</li> <li>If MEL/NEF is extended, insert the approved MEL/NEF Extension in the ATL.</li> </ol>
MCC	<ol style="list-style-type: none"> <li>Schedules and prepares the parts required for the correction of HIL (MEL/CDL/Non-MEL/NEF) item requiring special resources (i.e., special tools/equipment, skills) and longer ground time.</li> <li>Monitors HIL Items' scheduled correction dates and remaining intervals in AMOS to ensure HIL items do not exceed the time limit.</li> <li>Conducts weekly meetings with Purchasing-AOG team for review of all pending parts order.</li> <li>15 days prior to expiration of category D-HIL NEF, MCC shall escalate to the VP Engineering and Maintenance (DOM) all pending parts order for action.</li> </ol>

Table 14 HIL items each dept responsibilities



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## 3.5.3.4 Scheduling of HIL items for corrective action:

1. Scheduling:
  - a. MCC is responsible for scheduling the completion of corrective action for HIL items.
  - b. Items should be scheduled for correction as soon as practical after being reported to MCC.
  - c. In all cases, HIL items must be scheduled for completion prior to mandatory compliance dates required by the category listed for the specific MEL item.
2. Extensions:
  - a. If an item cannot be completed by the mandatory compliance date, Maintenance may request an extension.
  - b. The process for requesting extensions is governed by GMM 3.5.1.4 and OpSpec D95.

## 3.5.3.5 Clearing HIL items after corrective action:

After corrective action is accomplished, HIL Items shall be cleared as follows:

1. ATL Entry:
  - a. Re-sequence the HIL details in the ATL complaint block.
  - b. Enter a description of the discrepancy in the Item Information column, referencing the HIL Form and ATL sequence number.
  - c. Example: "Ref. HIL ATL Seq. No. F111111 MEL 21-XX-XXX, RH Pack Valve Inoperative."
2. Corrective Action:
  - a. Enter the work accomplished in the Corrective Action Column.
3. Additional ATL Entries:
  - a. Complete any required ATL page entries, such as part numbers, serial numbers, FIN, date, station, and applicable manual reference.
  - b. If a borrowed part was used, enter the airline it was borrowed from and follow the procedure in GMM 3.9.6
4. HIL Form Closure:
  - a. Enter the data required to close the item on the applicable HIL Form, including the date of correction.
5. Updating MCC and DSR:
  - a. Maintenance personnel should close the Hold Item update the HIL Form (Form: RXI/OPS-MNT-MT110-Hold Item List -MEL-CDL, RXI/OPS-MNT-MT111-Hold Item List -NEF, RXI/OPS-MNT-MT112-Hold Items List - Non-MEL -NEF), and immediately report to MCC.



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- b. MCC will then update the DSR and distribute it to all concerned departments.
- 6. Flight Dispatch Notification:
  - a. MCC should advise Flight Dispatch/OCC on Duty whenever a HIL Item is closed for Dispatch Release Responsibility.

## 3.5.3.6 MEL Flight Crew Deferral procedures

- 1. Situation when a Maintenance Release is Not Required:
  - a. If an item is deferred under the MEL and has no associated maintenance task (M), a Maintenance Release is not necessary.
  - b. Flight Crew can defer and placard MEL items in these cases:
    - i. At stations without maintenance representatives.
    - ii. After pushback/during taxi (but before takeoff) at any location.



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## 3.5.3.7 Procedures

1. **At Dispatch or Release:**
  - a. Follow instructions in OM-A
  - b. If flight can continue safely after (O) Procedure implementation, PIC proceeds and informs MCC and OCC.
2. **Upon Landing at Station Without Maintenance Provider:**
  - a. If fault disappears after shutdown: No action required.
3. **If fault persists after shutdown:**
  - a. PIC makes entry in the COMPLAINT column.
  - b. MCC/OCC is notified.
  - c. Upon concurrence, Crew writes "A/C ACCEPTED FOR RETURN TO BASE AS PER MEL ..." and MCC Authorization reference (name and EPN) in the ACTION column.
4. **Return to Base:**
  - a. Captain cannot make HIL page entries.
  - b. PIC makes new logbook sequence entry, writing FAULT MSG in COMPLAINT column.
  - c. Engineers address the item (clear if possible or raise HIL per MEL).
5. **Flowchart:**
  - a. A flowchart outlining the Flight Crew Deferral procedure is available below:



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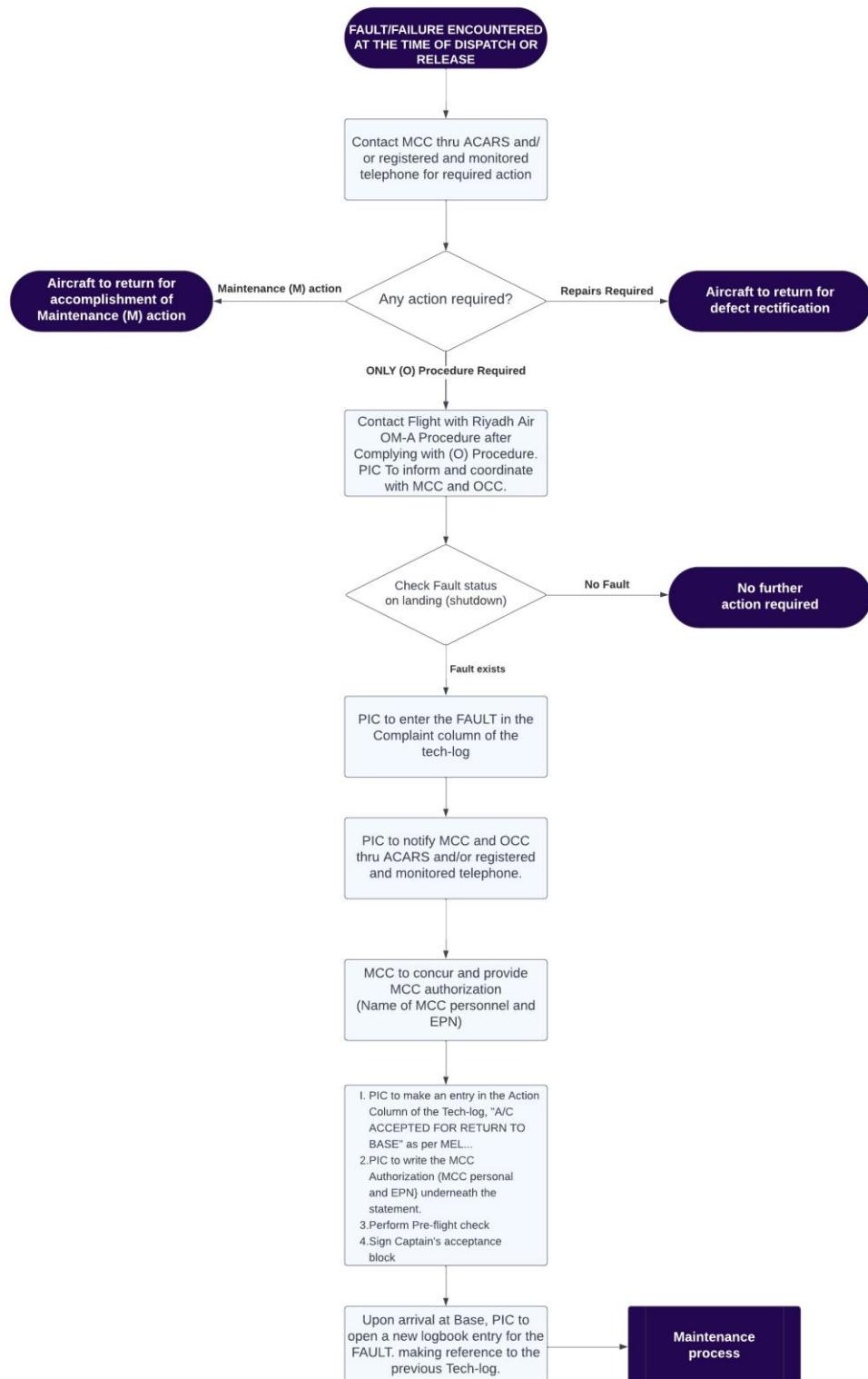


Figure 6 Deferral Procedure flow chart



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## 3.5.3.8 Inoperative labels for deferred items:

1. To inform and remind flight crew and maintenance personnel of inoperative equipment. Required by MEL/CDL for certain items.
2. Placement: Adjacent to the inoperative control or indicator, to the practical extent.
3. Blank INOP labels are available in the ATL.
  - a. Example: A simple label with the word "INOP".

INOP

4. Procedures for Use of INOP Labels:
  - a. Personnel entering the Hold Item must attach the INOP label as required by the MEL/CDL.
  - b. Maintenance personnel must remove and discard the INOP label after the Hold item is corrected or determined to be operating normally.

## 3.5.3.9 Responsibility, Authority, and Accountability (RAA)

1. Overall Responsibility:
  - a. VP Engineering and Maintenance (DOM): Holds ultimate responsibility for the quality, implementation, and revisions of MEL Management. This includes:
    - i. Ensuring MEL procedures are effective and compliant with regulations.
    - ii. Overseeing the proper execution of MEL procedures by various departments.
    - iii. Adapting MEL procedures based on:
      - 1) Inspection findings.
      - 2) New fleet types.
      - 3) Changes in maintenance practices.
    - iv. Utilizing CASS program and internal audits to assess MEL effectiveness and regulatory compliance.
2. Day-to-Day Operations:
  - a. Manager of Maintenance Control Center (MCC): Responsible for daily monitoring of MEL compliance through:
    - i. Interaction with Flight Dispatch/OCC regarding aircraft status and operational limitations.



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- ii. Communication with Line Maintenance personnel on corrective actions for deferred items.
- 3. Accountability:
  - a. While not explicitly stated, accountability for following MEL procedures likely falls on different personnel depending on their roles:
    - i. Flight Crew: Accountable for adhering to MEL limitations and placards during flight operations.
    - ii. Line Maintenance Personnel: Accountable for properly identifying, deferring, and correcting faults according to MEL procedures.
    - iii. MCC Personnel: Accountable for accurately recording and communicating aircraft status and MEL limitations to relevant parties.

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## 3.6 SERVICING AND MAINTAINING AIRCRAFT AT LINE STATION

### 3.6.1 Maintenance and Inspection Away from Maintenance Base

GACAR § 121.app g ii C (10), G

#### 3.6.1.1 General

All maintenance and inspections on Riyadh Air aircraft must follow four key documents: the CAMP (Continuous Airworthiness Management Program), the General Maintenance Manual (GMM), the Manufacturer's manuals, and any other official Riyadh Air manuals. This ensures consistent and safe practices across the fleet.

Riyadh Air's main Line Maintenance bases is located at Riyadh, and they handle approved maintenance tasks within Riyadh Air's scope.

#### 3.6.1.2 Procedure

1. Riyadh Air utilizes four distinct methods for handling aircraft maintenance at locations outside its main base, with the VP Engineering and Maintenance (DOM) responsible for selecting the appropriate option for each specific flight. While no method is inherently favored, every situation dictates its own optimal course of action.
2. Maintenance Options:
  - a. Riding Coverage:
    - i. A licensed, trained, and qualified flight mechanic accompanies the aircraft. This mechanic can perform or oversee necessary maintenance tasks, granted they possess the requisite RII and RTS authorizations approved by the Chief Inspector.
  - b. Staged Maintenance:
    - i. A qualified and authorized maintenance technician is stationed temporarily at a particular location by the maintenance department. This technician ensures the coverage of Riyadh Air's incoming and outgoing flights, performing routine and, under specific circumstances, non-routine maintenance. They require proper authorization from the Quality Department.
  - c. Contract On-Call:
    - i. Maintenance personnel designated by contracted providers handle maintenance needs, as stipulated in the Service Level Agreement (SLA) with Riyadh Air.
  - d. No Authorized Maintenance Available:



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- i. The Pilot-in-Command initiates the process by contacting OCC-RUH (Operations Control Center in Riyadh) to inform MCC (Maintenance Control Center) about the required maintenance or rectification.
- ii. One-Time Authorization (OTA):
  - 1) MCC requests a One-Time Authorization (OTA) from the Quality Inspection (QI) department to permit maintenance at that specific location.
  - 2) The Chief Inspector approves the OTA, granting authorization for the maintenance work.
  - 3) MCC dispatches the approved OTA to the contracted maintenance provider, enabling them to proceed with the necessary repairs.
  - 4) MCC continuously updates Riyadh Air's relevant departments about the defect rectification process and maintenance actions performed while the aircraft is away from its main base.
- iii. Documentation:
  - 1) The mechanic carrying out the work meticulously records all details of the maintenance in the appropriate section of the Aircraft Technical Log (ATL), including:
    - a) OTA reference number (as the Authorization Number).
    - b) Station where the work was performed.
    - c) Date of the work.
    - d) AMO Certificate number (in the CRS block).
    - e) The mechanic affixes their sign-off to the completed maintenance documentation, ensuring accountability and compliance with Riyadh Air's procedures.
  - e. By employing these diverse methods and entrusting the decision-making process to the VP Engineering and Maintenance (DOM), Riyadh Air ensures adequate maintenance coverage for its aircraft across various operational scenarios, guaranteeing flight safety and operational efficiency.
3. When choosing to utilize a local maintenance agency for rectifying an irregularity on a Riyadh Air aircraft away from its main base:
  - a. MCC must inform the local maintenance provider of any specific operational or functional checks required for the irregularity, ensuring proper repair and compliance with regulations.



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- b. Following the maintenance or corrective action, the local maintenance provider must send a copy of the Technical Logbook to MCC for review before releasing the aircraft. This allows MCC to verify the work performed and address any discrepancies.
- c. MCC bears responsibility for ensuring proper handling of RIIs associated with irregularity. This likely involves reviewing, approving, and communicating the RIIs to the local maintenance provider.
- d. The responsibility for ensuring accurate log entries in the aircraft's Technical Logbook lies with MCC. This includes verifying the information provided by the local maintenance provider and making any necessary corrections or additions.
- e. When a local maintenance agency handles repairs on a Riyadh Air aircraft away from its main base, the Pilot-in-Command (PIC) bears an additional responsibility:
  - i. PIC Responsibility:
    - 1) The PIC must verify and ensure that the airworthiness release document and the relevant maintenance entry in the aircraft's Technical Logbook are completed legibly and accurately. This includes checking for the following:
      - a) Signature: The performing mechanic's signed sign-off.
      - b) Certificate Number.
      - c) Time and Date
      - d) Location



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## 3.6.2 Required Inspection Items Away from Base

GACAR § 121.679

### 3.6.2.1 Policy

1. RII Compliance: The person releasing the aircraft must ensure all relevant Required Inspection Items (RIIs) have been inspected and complied with according to Riyadh Air's specific procedures and standards. This ensures thorough adherence to maintenance instructions issued by manufacturers or regulatory bodies.
2. Qualified Personnel: Only approved and qualified personnel can perform these inspections. They must possess the necessary certifications, training, and authorization to ensure quality and compliance with aviation regulations. Additionally, they must be present throughout the entire inspection process to oversee the work and adhere to best practices.
3. Re-inspection at Main Base: Upon arrival at a main base, a QI Inspector or Delegated Inspector will re-inspect the aircraft to verify the outstation maintenance work followed approved technical data and achieved an acceptable quality. This ensures proper repairs and compliance with airworthiness requirements.
4. Documentation and Actions: The re-inspection findings will be documented in the Aircraft Technical Log (ATL) for audit purposes. Any discrepancies will be brought to the attention of the maintenance department for rectification. Additionally, if necessary, a non-routine maintenance entry will be created on the Non-Routine (NR) log sheet and addressed promptly.



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## 3.6.3 Component Changes at Outstations

GACAR § 121.659

### 3.6.3.1 Operator Policy

1. Whenever a component is replaced or changed at an outstation, regardless of the reason, the Serviceable Label from the new component must be carefully attached to the corresponding entry in the Aircraft Technical Logbook (ATL).
2. ATL containing the attached Serviceable Label is then forwarded to Production Control for further processing and record-keeping.
3. The maintenance corrective action involving the component change must be documented in the ATL, including:
  - a. The performing mechanic's signature.
  - b. The mechanic's certificate number or the certificated Repair Station number (if applicable).
  - c. The date of the maintenance action.



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## 3.7 TECHNICAL LOG

GACAR § 121.663 121.1541

### 3.7.1 Aircraft Technical Logbook Instructions

(GACAR § 121.1541)

#### 3.7.1.1 Purpose

The ATL document serves as a crucial record, capturing any malfunctions, failures, and the corresponding corrective measures implemented by the maintenance or flight crew before the flight. It provides a comprehensive overview of the aircraft's maintenance history.

#### 3.7.1.2 Responsibility

QA (Quality Assurance) is responsible for overseeing both the control and quality of the ATL recording requirements process.

#### 3.7.1.3 Authority

The authority to suggest alterations to Riyadh Air's ATL process procedures rests solely with the VP Engineering and Maintenance (DOM), and the Chief Inspector.

#### 3.7.1.4 Policy

1. The ATL is required on board every aircraft for every departure, as mandated by GACA and other applicable regulations. It's stored in the flight deck for easy access.
2. The ATL's value depends entirely on its accurate and consistent use. Flight crew and maintenance personnel are responsible for making all necessary entries correctly.
3. Corrections and Voiding:
  - a. Single line through the word(s) for corrections, ensuring readability.
  - b. The person making the correction must initial and date (DD-MM-YY) above the corrected entry.
  - c. Voiding requires double lines across the Defect block with "VOID" written in between.
4. Paper Logbook:
  - a. Maintained on board the aircraft at all times for critical flight and maintenance records.
  - b. Must be used in accordance with policies and procedures, subject to audits.
5. Electronic Record:



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- a. Tracks maintenance activities stemming from logbook entries.
- b. Monitors deferred items, follow-up requirements, and routine/non-routine tasks.
- 6. Replenishment and Issuance:
  - a. PCC controls Technical Logbook replenishment.
  - b. Technical Records monitors and maintains stock levels.
  - c. PCC controls ATL issuance and maintains a tracking log for allocated aircraft registries.
- 7. Logbook format:
  - a. Two-part design:
    - i. ATL (FORM: RXI/OPS-MNT-MT126): Records aircraft defects, corrective actions, and Airworthiness Release/Certificate of Release to Service.
    - ii. ACL (FORM: RXI/OPS-MNT-MT127): Records aircraft cabin defects and corrective actions.

## 3.7.1.5 Logbook Procedures

- 1. ATL Main Elements:
  - a. Defect Block: Describes aircraft defects requiring correction or maintenance information.
  - b. Corrective Action Block: Details the corrective actions taken.
- 2. Airworthiness Release:
  - a. Authorized mechanic/engineer details (name, signature/initial, authorization/stamp number).
    - i. Station, date (UTC), time (UTC).
    - ii. AMO/AOC approval number.
    - iii. RII Inspection stamp (if applicable).
- 3. ATL (Aircraft Technical Log) Entry Guidelines:
  - a. Use legible, printed black/blue ballpoint ink (except for signatures).
- 4. Flight Crew Responsibility:
  - a. Complete all ATL information for each flight.
  - b. Start a new page for new flight crews during a flying day.
- 5. Discrepancy Documentation:
  - a. Record all discrepancies noted by flight crew or maintenance.



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- b. Maintenance must review the ATL back to the last aircraft release to service to ensure no open or unaccounted for write-ups.
- 6. Full Fill-Up Procedures: Found on the first page of each ATL.

## 3.7.2 MEL/CDL, Non-MEL Deferral and Procedure

GACAR § 121.app g ii p

- 1. Discrepancy Resolution:
  - a. All discrepancies must be resolved before the flight.
  - b. Early Evaluation: Involve the Line Maintenance Manager or Duty Supervisor as soon as possible to prioritize work and make the best operational decisions.
  - c. Consider MEL, CDL, or Non-MEL: If repair is impractical, determine if deferral is justified using MEL (Minimum Equipment List), CDL (Configuration Deviation List), or Non-MEL procedures.
  - d. If the crew who will be flying the aircraft (outbound crew) is available, they should be consulted before finalizing the decision on how to address the discrepancy.
- 2. Deferring Items:
  - a. MEL (MEL GO ITEM):
    - i. Defer inoperative systems or components that don't fulfill their intended purpose.
    - ii. MCC tracks and documents in a control log.
    - iii. Entered in applicable HIL Form
    - iv. Entered in Tracking Log Form by MCC.
  - b. CDL (CDL GO ITEM): Authorizes deferral of missing external aircraft parts.
    - i. MCC tracks and documents in a control log.
    - ii. Entered in applicable HIL Form by authorized mechanic and inserted in logbook.
  - c. Non-MEL: Items "OK to continue" but need tracking or crew awareness.
    - i. Categories include NEF (Non-Essential Furnishing), interim repairs, borrowed parts, structural defects, and fluid analysis requiring resampling.
    - ii. Entered in applicable HIL Form.
- 3. Documentation and Communication:
  - a. HIL Forms (HIL-MEL/CDL (Form: RXI/OPS-MNT-MT110) or HIL- Non-MEL/NEF (FORM: RXI/OPS-MNT-MT112): Used for MEL, CDL, and Non-MEL items.



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- b. Hold Item Notification Form: Maintenance personnel notify MCC of deferrals using this form.
  - c. Notice To Crew Form (Form: RXI/OPS-MNT-MT104): Used for additional instructions regarding deferred defects or Technical Services information.
4. Approvals and Reviews:
- a. MCC Approval: Required for deferrals.
  - b. MCC Validation: Reviews information and validates applied MEL.
  - c. AMOS System Entry: Pertinent information entered in AMOS System by MCC.
  - d. PIC Review: PIC reviews deferred items before each departure to ensure compliance and consistency with intended flight.
5. When a "GO ITEM" is determined using a specification other than MEL or CDL:
- a. The Line Maintenance Manager or Duty Supervisor is directly responsible for ensuring proper actions are taken.
  - b. They must assign a trained, qualified, and authorized individual to carry out the necessary tasks.
  - c. The Corrective Action block in the ATL must include the acceptable reference used to release the aircraft.

*Refer Appendix for Aircraft Technical Logbook and Aircraft Cabin Logbook format and filling instructions*



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3.8 AIRCRAFT MASS AND BALANCE PROGRAM

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## 3.8 AIRCRAFT MASS AND BALANCE PROGRAM

GACAR § 121.197

### 3.8.1 Purpose

Under the authorization of OpSpec E096, this section outlines the procedures for: aircraft weighing, certification and disposition of aircraft weighing documentation, and control and accomplishment of maintenance requirements related to the aircraft mass and balance program. It's important to note that specific instructions for the physical preparation, jacking, and weighing of each aircraft type are found in the corresponding aircraft manufacturer's maintenance manual.

### 3.8.2 General policy

1. Scheduled Aircraft Weighing:
  - a. Frequency: Aircraft must be weighed at intervals not exceeding 36 calendar months.
  - b. Scheduling: The weighing is a "calendar controlled" task, incorporated into the approved B787 Aircraft Maintenance Program (AMP) .
  - c. Planning and Tracking: The Planning department schedules weighing using forecast reports from a computer-based tracking system.
  - d. Out-of-Sequence Weighing: Any weighing that occurs outside the scheduled interval resets the 36-month cycle.
2. Additional Requirements:
  - a. Beyond Scheduled Weighing: Aircraft must also be considered whenever any of the following changes are made which causes significant change in weight.
    - i. Alterations
    - ii. Structural repairs
    - iii. Changes to galley contents specifications
    - iv. Painting of flight surfaces

### 3.8.3 Responsibility

1. Quality Assurance (QA):
  - a. Oversight and Audits: QA is responsible for ensuring the program's policies and procedures are followed and effective. They achieve this through audits to measure process effectiveness and compliance with regulations.



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## 2. Line Maintenance:

- Proper Weighing Procedures: The Director Maintenance ensures maintenance personnel adhere to the correct weighing procedure for each aircraft type, using the designated weight checklist and equipment list.

## 3. Engineering:

- Re-weigh Triggers: The Director of CAMO communicates any necessary re-weighs due to repairs, painting, or modifications to the Director Maintenance. This ensures these re-weighs are completed before the aircraft re-enters service.
- Scheduling and Equipment Lists: The Director of CAMO tracks the 36-month re-weigh schedule and ensures aircraft are scheduled before the interval expires. Additionally, they maintain updated equipment lists and review the re-weigh package before forwarding it to Maintenance Planning for scheduling.

### 3.8.4 Authority

Riyadh Air's VP Engineering and Maintenance (DOM) holds the authority to establish and modify the internal policies governing the program within the GACA-approved framework.

### 3.8.5 Weighing Procedures

The following procedure for weighing the aircraft using electronic scales should be followed.

- Verification of Scale Calibration:
  - Before starting, ensure the electronic scales have been calibrated within the required interval.
  - Attach a copy of the calibration record to the task card as proof of calibration.
- Weighing and Documentation:
  - Conduct the aircraft weighing process as per the manufacturer's instruction for the specific aircraft type.

*Note: For specific aircraft type weighing instruction, refer to the appropriate Weight and Balance Manual.*

- Updating Records:
  - Record the weighing data and complete necessary computations.
  - Again, attach a copy of the calibration record to the completed documentation.
- Distribution of Reports:



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- a. Provide copies of the Weighing Report to:
  - i. Flight Operations Performance Engineer Office
  - ii. Engineering and Maintenance

## 3.8.6 Controls

The Director Maintenance or his designee oversees the Mass and Balance Program. In case of actual weighing, the Technical Representative is responsible for overseeing the actual weighing process.

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## 3.9 PARTS, MATERIALS AND TOOLS

### 3.9.1 Parts Material Control

#### 3.9.1.1 Purpose

The goal is to ensure Riyadh Air has enough airworthy parts and materials for maintenance, preventive maintenance, and modifications, while fully complying with GACA regulations throughout the acquisition, receipt, and acceptance process.

#### 3.9.1.2 Responsibility

The VP Engineering and Maintenance (DOM), the Director of Supply Chain, and the Chief Inspector are responsible for the implementation and quality of this process of Riyadh Air.

#### 3.9.1.3 Authority

The Director of Supply Chain has authority. The Supply Chain Department shall maintain adequate supply of parts and materials to support Riyadh Air operations.

#### 3.9.1.4 Procedures

1. Stock Identification and Separation
2. Rotable parts and components must be clearly identified with a Serviceable Tag (Form: RXI/OPS-MNT-MT128) This tag, attached to the part, container, or bin, will display the part number, serial number, and serviceability status after passing inspection. Parts will be received, classified, and stored for protection and accessibility. All rotatable parts require a serial number; if absent, follow 3.4.1 AIRCRAFT RECORDS AND TIME CONTROL
3. Consumable items/materials shall be identified by attaching a Serviceable Tag to each item or container/bin.
4. Parts failing inspection will be tagged with Quarantine tag (Form: RXI/OPS-MNT-MT129) and quarantined. A Receiving Inspector will re-examine them, fix any correctable issues, and place acceptable items in stock. Unacceptable parts will be returned to the supplier or disposed of appropriately.
5. FDR and CVR requirement: During accidents or incidents, flight recorders must be deactivated after the final flight and quarantined until data is downloaded, retained for at least 60 days (or longer if requested by authorities), and authorized for release by Quality Dept. This ensures preservation of critical flight data for investigation purposes.
6. Acceptable Parts Certification Paperwork



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7. The table below indicates the acceptable certification for parts and components to be used for aircraft operated by Riyadh Air:

Kind of Part	Source Country	Authorized Release Certificate	Remarks
New parts <sup>①②</sup>	USA	FAA Form 8130-3 (Block 13 Completed)	
	EU	EASA Form 1 (Block 13 Completed)	
	Other	<ul style="list-style-type: none"> <li>1. Must be covered under the scope of the BASA agreement between the US or KSA and the exporting country;</li> <li>1. Must be accompanied by a completed airworthiness approval document (for example, FAA 8130-3, EASA Form 1 or UK CAA Form 1); and,</li> <li>2. Must have an airworthiness document that certifies that the materials, parts or appliances are eligible for installation on the bilateral country's product exported to the United States or KSA.</li> </ul>	
	Any	Type certificate holder written authorization and declaration that it was approved under the production certificate issued by the State of Design	Direct ship.
Used parts <sup>③</sup>	USA	FAA Form 8130-3 (Right side signed)	Complete engines and propellers excluded. #
	EU	EASA Form 1 (Block 14 Completed)	
	KSA	GACA Form 8130-3 (Block 14 Completed)	This is the only acceptable certification for complete engines and propellers.
	Other	<ul style="list-style-type: none"> <li>1. Must be covered under the scope of the BASA agreement between the US or KSA and the exporting country;</li> <li>1. Must be accompanied by a completed airworthiness approval document (for example FAA 8130-3, EASA Form 1 or UK CAA Form 1); and,</li> <li>2. Must have an airworthiness document that certifies that the materials, parts or appliances are eligible for installation on the bilateral</li> </ul>	Complete engines and propellers excluded. #



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Kind of Part	Source Country	Authorized Release Certificate	Remarks
		country's product exported to the United States or KSA.	
PMA parts	USA	FAA Form 8130-3 (Block 13 Completed)	
	EU	EASA Form 1 (Block 13 Completed)	
	KSA	GACA Form 8130-3 (Block 13 Completed)	
	Other	<ol style="list-style-type: none"> <li>Must be covered under the scope of the BASA agreement between the US or KSA and the exporting country;</li> <li>Must be accompanied by a completed airworthiness approval document (for example FAA 8130-3, EASA Form 1 or UK CAA Form); and,</li> <li>Must have an airworthiness document that certifies that the materials, parts or appliances are eligible for installation on the bilateral country's product exported to the United States or KSA.</li> </ol>	
TSO'd articles <sup>+</sup> Standard parts Commercial parts	USA	FAA Form 8130-3 (Left side signed)	TSOA articles
	EU	EASA Airworthiness Release Certificate Form (Left side signed)	ETSOA articles
	KSA	GACA Form 8130-3 (Left side signed)	SATSOA articles
		<ol style="list-style-type: none"> <li>Must be covered under the scope of the BASA agreement between the US or KSA and the exporting country;</li> <li>Must be accompanied by a completed airworthiness approval document (i.e., EASA Form 1); and,</li> <li>Must have an airworthiness document that certifies that the materials, parts or appliances are eligible for installation on the bilateral country's product exported to the United States or KSA.</li> </ol>	



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Kind of Part	Source Country	Authorized Release Certificate	Remarks
Standard parts	Any	Certificate of Conformance from manufacturer	See Appendix 2, FAA AC 20-154
Commercial parts	Any	Packing slip	Must be listed in the Commercial Parts List (CPL) issued by the TC holder and included in the ICAs.

Table 15 Acceptable certification for parts and components

**Notes:**

- ❶ New parts include rebuilt parts.
  - ❷ Used parts means Repaired, Overhauled, Inspected or Tested parts.
  - ❸ Parts sourced from countries on the Saudi Arabian Importation Ban list are not accepted for use in Saudi Arabian-registered aircraft.
- + = TSO'd articles also require an installation approval under GACAR Part 21 before they may be installed.
- # = A complete engine or propeller may not be disassembled to represent several components unless authorized by the Aircraft Maintenance Manual. An example is a modular engine. In this case, the release to service must indicate that the module was tested with a test bed certified engine and the performance parameters were within the manufacturer's standards and technical data and a record of that test accompanies the approval for return to service.

8. A document approving the part for release to service, issued under GACA/FAA Part 43, Burn Certificates: For materials used in the cabin interior, these certificates confirm that they comply with flammability regulations, ensuring passenger safety in case of fire.
9. Installing non-compliant parts as per this subsection requires a GACA one-time approval. The VP Engineering and Maintenance (DOM) contacts QA for assessment, then provides data to the Chief Inspector if needed. The Chief Inspector gathers data, prepares application and necessary paperwork, and sends it to Riyadh Air's GACA Principal Maintenance Inspector. GACA approval comes as an "Airworthiness letter" attached to the part's documentation, replacing usual certification.
10. Stock Control and Storage Conditions



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- a. Detailed instructions and information for the storage and segregation of parts, components, and material are found in the GMM [3.9.4](#).

11. Shelf-Life

- a. Detailed instructions and information for the handling of Shelf-Life parts/materials are found in the GMM [3.9.3](#).

12. Disposal of Parts, Components and Material

- a. Parts deemed unusable or unrepairable will be clearly marked with a "Scrap Tag" (FORM: RXI/OPS-MNT-MT130) and swiftly removed from service. The Quality Inspection Department is responsible for ensuring no condemned parts accidentally re-enter circulation. To prevent this, scrap parts will be defaced through methods like cutting, drilling holes, or even forceful breakage with a sledgehammer, guaranteeing their permanent inoperability.
- b. The Supply Chain Department is responsible for the proper disposal of expired items, such as sealants and lubricants etc. This includes following the manufacturer's recommendations and adhering to all local regulations.

13. Training

- a. Newly hired Supply Chain – Logistics and Warehouse personnel are required to attend Initial Training classes on procedures prior to being given any assignment in Stores/Warehouse. Completion of each training class will be documented in the individual's training file.
- b. All Stores personnel shall be required to undergo a Recurrent Training class on procedures outlined in this section every twenty-four (24) months thereafter. Completion of the training classes shall be documented in the Technical Training personnel file.
- c. Supply Chain - Logistics and Warehouse personnel who will be authorized to perform the Receiving Inspection must undergo the Basic Indoctrination Training and Receiving Inspection training course prepared by Technical Training. They are also required to undergo On-The-Job Training for at least one month under the guidance of a QI Inspector or Receiving Inspector.
- d. The Maintenance/Inspection Training Program shall include Initial and Recurrent Trainings but not limited to Suspected Unapproved Parts (SUPs), Electrostatic Sensitive Devices (ESD), HAZMAT and Receiving Inspection training.

14. Receiving Inspection and Tagging Requirements for Riyadh Air

15. Riyadh Air prioritizes thorough inspection of all parts before installation. Clear procedures are established for both Riyadh Air and outstation receiving scenarios. Documentation and tag verification are crucial for ensuring compliant part installation.



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16. This section outlines the mandatory procedures for inspecting and tagging parts and materials before installation on Riyadh Air aircraft.

a. General Inspection:

- i. All parts and materials intended for installation must be inspected by a Receiving Inspector authorized by the Chief Inspector.
- ii. Inspections will comply with GACA AC 021-02 and GMM [3.9.2](#)
- iii. This applies before placing parts or materials in stock or storage.

b. Outstation Receiving Procedures:

- i. For parts/materials received directly from a vendor at an outstation:
- ii. Technical Representative: May be delegated inspection authority if no routing through Riyadh Air's Receiving Inspection.
- iii. Contracted Maintenance Provider: Can perform Receiving Inspection if no Technical Representative available.
- iv. In both cases, control all units before installation and ensure:
  - 1) Compliance with maintenance provider's receiving procedures.
  - 2) Completed Serviceable Tag attached before acceptance.
  - 3) Forward completed Serviceable Tag and installation paperwork to Technical Planning-PCC.

c. Reference Sources:

- i. Detailed Receiving Inspection procedures: GMM [3.9.2](#).

17. Robbery/Parts Transfer

a. Refer GMM [3.9.7](#)

18. Suspected Unapproved Parts (SUP)

a. Refer GMM [3.9.5](#)

19. List of Approved/Accepted Suppliers Vendors List

a. The Listing of the Approved Suppliers Vendors List is under the control of QA and always available for inspection by airworthiness regulatory.

20. AD Compliance for Parts

a. Riyadh Air's Technical Services department plays a crucial role in ensuring aircraft safety and component compliance. They're responsible for monitoring both the FAA and EASA websites bi-weekly for any Airworthiness Directives (ADs) or Emergency ADs (EADs) that



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could impact Riyadh Air's aircraft, engines, or appliances. When an AD or EAD applies to spare components stored in inventory, their findings are incorporated into Engineering Orders (EOs) detailing the specific requirements for those components.

21. Routing of Tags

- a. After installation, the GACA or FAA Form 8130-3/EASA Form 1 (Dual release Certificates), Air Carrier's Serviceable Parts Tag, and/or Material Certification document will be forwarded to Production Control Center with the installation record for disposition.

## 3.9.1.5 Process Measurement

1. An evaluation of the Parts and Material control process shall be accomplished by QA.
2. QA shall audit the Parts Material Control process of Supply Chain Department in accordance with the GMM and regulatory requirements:

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## 3.9.2 Receiving Inspection

### 3.9.2.1 Purpose

Riyadh Air is responsible for maintaining the continued airworthiness of its aircraft, as stipulated by GACAR 121.675 and 121.679. These regulations mandate that:

1. **Installer Responsibility:** Prior to returning a product or component to service with a new part installed, the installer must determine the part's suitability for installation.
2. **Airworthiness Data Compliance:** Installation of new parts must strictly adhere to airworthiness regulatory-approved data.

### 3.9.2.2 Responsibilities

1. **Chief Inspector:**
  - a. Responsible for establishing and modifying the Receiving Inspection process.
  - b. Provides oversight to ensure personnel perform procedures as outlined in this GMM.
  - c. Has the authority to make final decisions regarding part serviceability in case of inconsistencies with Receiving Inspection Authorized Personnel decisions.
2. **Receiving Inspection Authorized Personnel:**
  - a. Ensure all incoming parts undergo complete Receiving Inspection procedures.
  - b. Their decisions regarding part serviceability can only be overturned by the Chief Inspector.

### 3.9.2.3 Procedures

1. **Personnel Qualification:**
  - a. Only trained and qualified personnel authorized by the Chief Inspector may perform Receiving Inspections.
2. **Authorization and Training:**
  - a. QI processes authorization card and stamp issuance for qualified personnel.
  - b. Receiving Inspectors undergo specific training and hold the required stamp.
  - c. Other than dedicated Receiving Inspectors, a Delegated Inspector may be authorized by the Chief Inspector to perform Receiving Inspections of incoming material.
3. **Inspection Process:**
  - a. Receiving Inspectors complete the Receiving Inspection Checklist (Form: RXI/OPS-MNT-MT123) in AMOS for each received item:



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- i. Eligibility and AD Compliance: Determine the item's eligibility for a Serviceable Tag, considering applicable Airworthiness Directives (ADs).
  - ii. Container and Shipping Damage: Verify the container adheres to ATA Specs 300 and the item is free from shipping damage.
  - iii. Traceability: Ensure component traceability as per this Chapter's requirements.
  - iv. Visual Inspection: Check for visible damage, environmental exposure, or any potential airworthiness concerns.
  - v. Vendor Serviceability Documentation: Confirm the vendor's "Return to Service" statement is appropriate for the performed work. This statement must be present on all vendor's serviceable tags or invoices. If an invoice is the only available documentation, it must be readily accessible and clearly identify the airworthiness responsibility for the component.
  - vi. Work Order Verification: Ensure the accomplished work matches the Purchase Order/Work Order specification.
  - vii. Component Status and Time Limits: Accurately record the component status (new/overhauled/repaired/etc.) from the vendor's tag onto the Serviceable Tag. Ensure the vendor's tag or certification document remains with the part until installation. For components with time limitations, record the relevant time data (e.g., time since overhaul, time since new) on the Serviceable Tag.
  - viii. Shelf-Life Management: If applicable, indicate the shelf-life limit on the Serviceable Tag.
- b. Serviceable Tag Issuance: Upon completion and confirmation of compliance with all conditions, the Receiving Inspector prints and attaches a Serviceable Tag to the part/component.
  - c. Rejection and Quarantine: For parts/components failing to meet Riyadh Air's serviceability requirements, a Quarantine Tag with rejection details will be issued. Such items will be transferred to the designated Quarantine Area for further disposition by Purchasing.
4. Required Documentation: Ensure incoming aircraft parts/components are accompanied by the documents listed in the table below:



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REQUIRED DOCUMENTS						
Source Part	Condition	Ratable, Repairable and Expendable	Raw Material	Chemical	Standard Part	Commercial part
Aircraft, engine or propeller	New / Rebuilt	Packing slip Invoice FAA 8130-3 or EASA Form 1				
PMA or TSOA holder	New/Rebuilt	Packing slip Invoice FAA 8130-3 or PMA/TSOS marking				
EASA Part 21 POA Holder	New/Rebuilt	Packing slip Invoice EASA Form 1				
Part 145 (Repair Station) Certificate Holder	Repaired/Overhauled/Inspected/Tested	Packing slip Invoice FAA 8130-3 or EASA Form 1 Tear down report for repaired/overhauled				
Supplier (OEM or Distributor)		Packing slip Invoice FAA 8130-3/ EASA Form 1 or PMA/TSOS marking	Packing slip Invoice Lot number C of C Flammability test report for interior item	Packing slip Invoice MSDS Certificate of Conformance	Packing slip Invoice Certificate of Conformance	Packing slip Invoice
Customer	Serviceable	FAA 8130-3/ EASA Form 1 or PMA/TSOS marking Serviceable Tag for Rotable part	FAA 8130-3/EASA Form 1 or PMA/TSOS marking			

Table 16 Documents required for incoming aircraft parts/components.



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## 3.9.3 Shelf Life Procedures

### 3.9.3.1 Purpose

To ensure the continued airworthiness of all components, accessories, and appliances installed on Riyadh Air aircraft, specific shelf-life procedures are implemented for the proper management and use of serviceable spare parts and materials.

### 3.9.3.2 Responsibilities

1. Maintenance Department: Responsible for:
  - a. Implementing shelf-life inspection procedures during maintenance activities.
  - b. Ensuring proper storage and protection at their respective locations.
2. Supply Chain Department: Responsible for:
  - a. Implementing shelf-life inspection procedures for stored parts and materials.
  - b. Maintaining optimal storage conditions for sensitive parts susceptible to temperature and humidity fluctuations.
  - c. Coordinating the disposal of expired or unusable parts and materials per company procedures.

### 3.9.3.3 Shelf-Life Determination

1. Start Date: The shelf-life timer for a part or material begins on the date of:
  - a. Manufacture new parts.
  - b. Release from a repair shop for repaired parts.
  - c. Release from an overhaul/repair agency for overhauled parts.
2. Controlled vs. Indefinite:
  - a. Controlled Parts:
    - i. Parts and materials with documented shelf-life limitations due to potential degradation over time (e.g., electronic/avionics equipment, seals, packing, life rafts, life vests) require strict shelf-life management.
  - b. Indefinite Shelf Life:
    - i. Parts not listed as "Controlled" in this procedure or any approved manuals are considered to have an indefinite shelf life but still require periodic inspections for suitability.



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## 3.9.3.4 Inspection Procedures

1. Frequency: Stores personnel perform monthly inspections (within the first ten days of each month) of all serviceable parts, components, and materials in storage to verify:
  - a. Adherence to shelf-life limits.
  - b. Overall condition and suitability for future use.
  - c. Adequate protection against damage or environmental exposure.
  - d. Documentation: A record of each inspection, including details of inspected items, conditions observed, and any actions taken, must be maintained by the maintenance provider until the next scheduled inspection.

## 3.9.3.5 Shelf-Life Expiration

1. Stores personnel are responsible for maintaining accurate records of shelf-life expiration dates for all controlled parts and materials.
2. This information is readily available on the Serviceable Tag (Form: RXI/OPS-MNT-MT128) attached to each item.
3. Procedures for the proper disposal of expired or unusable parts and materials are outlined in separate company regulations.



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## 3.9.4 Stock Control and Storage Conditions

### 3.9.4.1 Purpose

Riyadh Air prioritizes maintaining an adequate supply of airworthy aircraft parts/components and materials by implementing a comprehensive stock control and storage system. This ensures timely availability of required items while guaranteeing their optimal condition and safeguarding against contamination or damage.

### 3.9.4.2 Storage Procedures

#### 3.9.4.2.1 General Requirements:

1. Secure Access:
  - a. The Supply Chain Department maintains all parts and materials in a secure area accessible only to authorized personnel.
2. Segregation and Protection:
  - a. Serviceable Items: Stored in suitable trays, racks, or stands with appropriate protective covering to prevent damage or contamination.
  - b. Repairable/Reworkable Parts: Clearly tagged and segregated in designated containers or shelves away from serviceable items.
  - c. Rejected/Scrapped Parts: Properly tagged and stored in dedicated containers or areas to prevent misuse or accidental installation.

#### 3.9.4.2.2 Specific Procedures:

1. Removed Parts:
  - a. During maintenance, properly identify and store removed parts in a segregated area using bins, racks, or other suitable protective arrangements. Ensure proper packaging or covering to prevent damage from dirt, falling objects, or other factors.
2. Hazardous Materials:
  - a. Segregate and store flammable/hazardous materials in standard fireproof lockers meeting GACA and manufacturer requirements.
  - b. Oxygen and pressurized bottles: Properly identify, store, and separate from combustible materials and ignition sources.
  - c. Follow specific storage instructions provided in Material Safety Data Sheets (MSDS) for individual hazardous materials.



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## 3. Aircraft Tires:

- a. Ideal Conditions: Cool, dry, dark location (below 80°F/26°C) with indirect lighting, away from air currents, ozone sources, and oil-based substances.
- b. Storage Methods:
  - i. Store vertically in tire racks or horizontally on individual skids.
  - ii. Maintain recommended shipping pressure.
  - iii. Implement First-In-First-Out (FIFO) principle to utilize oldest tires first.

## 4. Sealants:

- a. Shelf life: Shall never be accepted or received with less than 6 months remaining on manufacturer's recommended shelf life.
- b. Storage and Handling:
  - i. Store matched base materials and accelerators together for efficient use.
  - ii. Maintain constant temperature between 4.4°C (40°F) and 21.1°C (70°F) for non-catalytic sealants.
  - iii. Implement FIFO principle.
  - iv. Freeze pre-mixed sealants at -23°C (-10°F) immediately upon receipt.
  - v. Follow manufacturer's instructions for special storage requirements.
  - vi. Dispose of expired sealants promptly.
  - vii. Conduct periodic shelf-life checks as per procedures in GMM.
  - viii. Store in original containers with tight closures.

### 3.9.4.3 Documentation and Audits:

1. Maintain accurate records of parts/materials inventory and location within the storage system.
2. Conduct regular audits to ensure adherence to established storage procedures and identify potential improvement opportunities.



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## 3.9.5 Suspected Unapproved Parts (SUP)

### 3.9.5.1 Purpose

Riyadh Air prioritizes the highest level of aviation safety by implementing a robust procedure for identifying and reporting Suspected Unapproved Parts (SUPs) on its aircraft. This section outlines the responsibilities, procedures, and supporting practices for Stores Personnel, Maintenance Personnel, and Inspection Personnel to effectively detect and report SUPs to GACA as required by GACAR Part 4.5(d)(1).

### 3.9.5.2 Responsibilities

1. Stores Personnel:
  - a. Inspect incoming parts for proper identification markings, documentation, and physical characteristics.
  - b. Segregate any part suspected of being unapproved and initiate investigation to clarify its status.
  - c. Report confirmed SUPs using [F-145-8120-11-001 Form](#), as revised and notify QA immediately.
2. Maintenance Personnel:
  - a. During maintenance activities, identify and segregate any part suspected of being unapproved based on physical discrepancies, missing documentation, or other indications.
  - b. Report confirmed SUPs using [F-145-8120-11-001 Form](#), as revised and notify QA immediately.
3. Inspection Personnel:
  - a. During airworthiness or pre-flight inspections, identify and segregate any part suspected of being unapproved based on discrepancies or non-conformities.
  - b. Report confirmed SUPs using [F-145-8120-11-001 Form](#), as revised and notify QA immediately.
4. Quality Assurance (QA):
  - a. Provide regular training and guidance on SUP identification and reporting procedures.
  - b. Assist personnel in completing [F-145-8120-11-001 Form](#), as revised if needed.
  - c. Review and submit completed [F-145-8120-11-001 Form](#), as revised to GACA in accordance with instructions stated in the form.
  - d. Coordinate with Maintenance and Inspection departments to ensure proper quarantine and handling of SUPs.



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## 3.9.5.3 Procedure

1. Initial Identification and Segregation:
  - a. Upon identifying a part with potential discrepancies, personnel from their respective department will segregate the part and initiate investigation to resolve its status.
  - b. This may involve contacting the supplier for missing documentation or attempting to determine if irregularities are solely due to shipping damage.
2. Reporting Suspected Unapproved Parts:
  - a. If after investigation the part remains suspect, personnel must complete a [F-145-8120-11-001 Form](#), Suspected Unapproved Parts Notification. This form serves as the official notice to GACA and facilitates a SUPs investigation.
3. Quality Assurance (QA) must be notified immediately upon completion of the [F-145-8120-11-001 Form](#).
4. Quarantine and Documentation:
  - a. The suspected unapproved part must be securely quarantined in a designated area to prevent inadvertent installation on any aircraft.
  - b. Maintain all relevant documentation, including the completed [F-145-8120-11-001 Form](#), with the quarantined part for easy retrieval during the investigation.
5. GACA [F-145-8120-11-001 Form](#) Completion:
  - a. The form includes clear instructions for completion and identifies the necessary information to initiate a SUPs investigation as per FAA AC 21-29B.
  - b. If a reporter encounters difficulty completing the form, they can:
    - i. Email GACA at the email address provided with the form and provide required information which will be transcribed onto the form.
    - ii. Seek assistance from QA or designated personnel familiar with the process.
6. SUPs Investigation Process:
  - a. Following GACA notification with the [F-145-8120-11-001 Form](#), the investigation into the suspected unapproved part will follow the guidelines outlined in FAA AC 21-29B. This process may involve:
    - i. Traceability analysis: Tracing the part's origin and distribution history to determine its legitimacy.
    - ii. Technical evaluation: Assessing the part's physical characteristics, markings, and documentation for compliance with regulatory standards.
    - iii. Consultations with GACA and other relevant authorities: Collaborating with regulatory bodies to determine the appropriate course of action.



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## 3.9.6 Borrowed Parts (GACAR Part 21)

### 3.9.6.1 Purpose

To maintain operational uptime and minimize delays, Riyadh Air utilizes a controlled procedure for borrowing parts from other Part 121 Air Carriers in accordance with GACAR Part 21. This practice enables access to needed components when unavailable through standard purchasing channels, ensuring aircraft serviceability and continued flight operations.

### 3.9.6.2 Authority

1. VP Engineering and Maintenance (DOM): Holds the sole authority to approve or deny requests for borrowing parts under the guidelines of GACAR Part 21.
2. Maintenance Control Center (MCC): Initiates borrowing requests for necessary parts not readily available through procurement and submits them for VP Engineering and Maintenance (DOM) approval.

### 3.9.6.3 Procedures

#### 3.9.6.3.1 Borrowing Initiation and Approval:

1. MCC completes a Borrowing Request Form (FORM RXI/OPS-MNT-MT134) specifying the required part, reason for borrowing, and proposed lending Air Carrier.
2. The request is submitted to the VP Engineering and Maintenance (DOM) for review and approval.
3. The VP Engineering and Maintenance (DOM) considers factors such as operational impact, part availability, return/replacement feasibility, and compliance with GACAR Part 21 before making a decision.

#### 3.9.6.3.2 Documentation and Processing:

1. Upon approval, the MCC coordinates with the chosen Air Carrier for part availability and transportation arrangements.
2. A Borrowing Agreement is established between Riyadh Air and the lending Air Carrier, outlining terms and conditions for the borrowing process.
3. Necessary documentation, including Serviceable Tag, Airworthiness approval Tag, and any additional manufacturer or regulatory documents, accompanies the borrowed part.

#### 3.9.6.3.3 Eligibility and Condition of Borrowed Parts:

1. Parts exceeding Riyadh Air's approved overhaul time limit may be borrowed under specific conditions:



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- a. Remaining Time Since Overhaul (TSO) must be at least 200 hours (or 100 landings if landing-limited) compared to the lender's limit.
- b. Usage on Riyadh Air aircraft is limited to 100 hours (or 50 landings if landing-limited).
- c. Life-limited parts cannot be borrowed beyond their approved life limit.
4. Borrowed parts must be in serviceable condition and compliant with manufacturer specifications.
5. Parts sold by or borrowed from Part 121 air carriers are acceptable, provided that the air carrier's shipping documents and/or serviceable tag is completed in accordance with their procedures. (Serviceable tags, shop tags or other documents are acceptable provided the part status and manufacturer's part number can be determined from the information provided and it is accompanied by a Form 8130-3).
6. Consumable/expendable material sold by Part 121 air carriers should be "new" unless otherwise noted on the shipping documents.
7. Part borrowed shall accompany a GACA/FAA/EASA or Dual Release certificate or TC approved manufacturer certificate and documented as "new", the unit may be used on Riyadh Air aircraft after it passes inspection for deterioration and damage.
8. If the part is other than "new", the air carrier's Serviceable Tag or an FAA Form 8130-3 or EASA Form 1 or Dual Release certificate must be present stating all the pertinent information including the unit's TSO (if applicable) under the lender's Operations Specifications or reliability program. In the case of an engine, procurement of the appropriate historical records must be obtained and forwarded to the contracted service providers Technical Planning - PCC. When the engine is returned to the lender, the applicable historical records shall also be returned.

## 3.9.6.3.4 Part Installation and Tracking:

1. Maintenance personnel install the borrowed part on the designated aircraft, complying with all relevant maintenance procedures and documenting the process in the Aircraft Technical Log.
2. Supply Chain tracks the borrowed part, utilizing a dedicated tracking item in the inventory management system.
3. Technical Planning - PPC monitors the borrowing transaction, ensuring adherence to the Borrowing Agreement and regulatory requirements.

## 3.9.6.3.5 Return and Replacement:

1. Borrowed parts must be returned to the lending Air Carrier within 30 days of installation unless otherwise agreed upon.
2. Maintenance removes the part from the aircraft, inspects it for damage, and ensures proper packaging and documentation for return.



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3. Supply Chain coordinates logistics for return, ensuring compliance with regulatory procedures and safe transportation.
4. Technical Planning - PPC updates records and confirms the completed borrowing transaction upon final receipt and inspection by the lending Air Carrier.
5. In case of damage or unserviceability during usage, Maintenance immediately informs the lending Air Carrier and initiates the replacement process, following established procedures.

## 3.9.6.4 Control

1. Regular audits by Quality Assurance (QA) will ensure adherence to established procedures and identify areas for improvement.
2. Tracking metrics such as borrowing frequency, return times, and replacement costs will provide data for process evaluation and optimization.

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## 3.9.7 Robbery/Transfer of Parts

### 3.9.7.1 Purpose

This section outlines the policies and procedures for Robbery/Parts Transfer, the authorized removal of a specific component or part from an assembly for installation on another aircraft to meet urgent operational needs. This practice allows Riyadh Air to prioritize aircraft maintenance and minimize delays, with the obligation to replace the removed component as soon as possible.

### 3.9.7.2 Robbery/Parts Transfer Policy

1. Limited Application: Robbery/Transfer should only be considered as a last resort in unusual situations. Any request must be initiated by Maintenance Control Center (MCC) and approved by the VP Engineering and Maintenance (DOM) or designee.
2. Approval Process: Each request undergoes a thorough review by the VP Engineering and Maintenance (DOM) or designee, considering factors such as operational impact, maintenance resource allocation, and financial implications. Prior approval from Maintenance and MCC is mandatory before any removal.
3. Control and Monitoring: MCC is responsible for managing control numbers for all approved requests, enabling effective monitoring and record-keeping.
4. Major Components: Removal of major components like engines, cowls, thrust reversers, APUs, landing gear, and flight control surfaces requires additional justification and direct approval by the VP Engineering and Maintenance (DOM), including detailed financial impact analysis.
5. Serviceable Parts and Assemblies: Robbery/Transfer is permitted for serviceable spares and built-up assemblies under the following conditions:
  - a. Prior authorization from the VP Engineering and Maintenance (DOM) or designee
  - b. Immediate requisition for replacement parts
6. Maintenance responsibility for replacing the robbed/transferred component.
7. Proactive anticipation of parts requirements by Supply Chain, MCC, and Technical Planning - PPC to minimize the need for Robbery/Transfer.

### 3.9.7.3 Robbery/Transfer Procedures

1. Parts Transfer Justification Form: MCC completes a Parts Transfer Justification Form (Form: RXI/OPS-MNT-MT105), providing a control number for tracking and reporting to the VP Engineering and Maintenance (DOM) monthly.
2. Part/Component Identification: MCC or the requesting department identifies the parts/components using approved forms. Maintenance makes necessary entries in the tech log.



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The completed Parts Transfer Justification Form is forwarded to the VP Engineering and Maintenance (DOM) for approval. Verbal approval may be granted in emergencies, with follow-up documentation required.

3. Removal and Tagging: Only the required part/component are removed. Any additional parts/subassemblies required for access are tagged, bagged, and attached to the original assembly.
4. Time-Controlled Parts: For parts with defined inspection intervals, Time Since Overhaul (TSO) and next inspection due date must be verified in the system before authorizing Robbery/Transfer.
5. On-Condition Parts: Ensure such parts are in good condition for installation.
6. Notifications: Upon approval, MCC forwards a copy of the Parts Transfer Justification Form to Technical Planning - PPC.
7. Part Robbery Tag: A completed Part Robbery Tag (Form RXI/OPS-MNT-MT114) is attached to the robbed/transferred part for tracking by MCC and Technical Planning - PPC.
8. Documentation: Maintenance documents the robbery in the aircraft technical log.
9. Replacement Part Acquisition: Maintenance issues a requisition, and Supply Chain-AOG Desk prioritizes acquisition of the replacement part for the donor aircraft.
10. Tracking and Installation: Supply Chain-Stores monitor the incoming part and notifies MCC upon arrival. MCC schedules the installation after receiving the required work order and maintenance task card from Technical Planning - PPC.
11. Transferred Engine/APU Parts: During engine or APU replacement, transferred parts like IDG, EDP, and starters receive a serviceable tag and are updated in AMOS (a/c removal/installation) by PPC.

## 3.9.7.4 Controls and Monitoring

1. Regular audits by QA will ensure adherence to established procedures and identify areas for improvement.
2. Tracking metrics such as Robbery/Transfer frequency, replacement part acquisition times, and operational impact will provide data for process evaluation and optimization.
3. Maintaining and reviewing internal documents and training materials will promote consistent understanding and application of Robbery/Transfer procedures.



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## 3.9.8 Shipping / Packaging of Parts, Components and Material

### 3.9.8.1 Purpose

To ensure the safe and secure delivery of aircraft components and materials while preventing damage, adhering to industry standards, and minimizing handling errors throughout storage and transport.

### 3.9.8.2 Responsibility

1. All personnel involved in:
  - a. Packaging
  - b. Shipping
  - c. Receiving
  - d. Handling Hazardous Materials (HAZMAT)
2. Logistics: Responsible for packaging and shipping materials between stocking locations following established procedures and manufacturers' recommendations.
3. Quality Assurance (QA): Responsible for regular audits to ensure adherence to these procedures and identify areas for improvement.

### 3.9.8.3 Procedures

#### 3.9.8.3.1 Pre-Packaging:

1. Inspection: Before shipment, the outgoing unit must be inspected for any damage.
2. Verification: Part number and serial number must be verified against records.
3. Electro-Static Discharge Sensitive (ESDS) Handling: Follow established ESDS procedures for sensitive parts/components.

#### 3.9.8.3.2 Packaging:

1. Container Selection: Use suitable containers that meet industry standards and provide adequate protection. Prioritize reusing undamaged containers received with parts.
2. Weight Limits: Ensure the combined weight of the container and contents does not exceed the limit stamped on the box certificate.
3. Segregation: Do not pack heavy items with fragile components.
4. Rotable Components: Each component must be individually packaged with adequate cushioning. Combining components in one larger container is acceptable if individual packaging guidelines are followed.



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5. Consumables/Expendables: Parts with the same part number/batch number can be packaged together in a secure manner that minimizes movement during shipping. Vendor packaging should remain intact when applicable.
6. Fragile Parts: Pack fragile parts separately, using cushioning material to prevent damage.
7. Special Containers: When using containers with pre-installed padding, ensure components fit without excess movement or pressure on fragile parts. Proper orientation and additional padding are crucial. Unpadded containers should be lined or wrapped with foam or bubble wrap for secure protection and minimal movement. Heavier or delicate components require more cushioning.

#### 3.9.8.3.3 Documentation:

Proper labeling and tagging must be completed for each material before packaging for storage or shipment.

#### 3.9.8.3.4 HAZMAT Handling:

Personnel involved in handling HAZMAT must undergo thorough training in dangerous goods protocols. Follow specific procedures for packaging, labeling, and shipping HAZMAT materials as per relevant regulations.

#### 3.9.8.4 Controls

1. Regular Audits: QA will conduct regular audits to ensure adherence to these procedures and identify any areas for improvement.
2. Metrics: Track and analyze data such as damage rates, shipping delays, and container reusability to measure process effectiveness and identify potential problems.
3. Internal Documents and Training Resources: Maintain reference documents and training materials outlining proper packaging and shipping procedures for different categories of parts and materials.
4. Hazardous Materials Management: Implement specific controls for HAZMAT handling, including adherence to regulations, training records, and incident reporting procedures.

#### 3.9.8.5 Process Measurement

1. QA audits will monitor compliance with established procedures and identify areas for improvement.
2. Tracking metrics like damage rates, shipping delays, and container reusability will provide data to evaluate process effectiveness and inform necessary adjustments.
3. Regular reviews of internal documents and training materials will ensure their currency and accuracy.



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- Monitoring and reporting HAZMAT incidents will help identify and address potential safety hazards and compliance issues.

## 3.9.9 Physical Inventory

### 3.9.9.1 Purpose

To ensure the accuracy and completeness of Riyadh Air's inventory of aircraft parts, tools, and equipment used in its operations, thereby minimizing discrepancies, optimizing resource management, and maintaining operational efficiency.

### 3.9.9.2 Responsibility

The Supply Chain Department (Logistics and Warehouse) is responsible for conducting the annual physical inventory of all aircraft-related inventory items, including planning, execution, reporting, and follow-up actions.

### 3.9.9.3 Authority

- The Director of Supply Chain has the authority to:
  - Establish the physical inventory schedule and methodology.
  - Allocate resources and assign personnel for the inventory process.
  - Approve the final inventory report and recommend corrective actions.

### 3.9.9.4 Procedure

- Frequency: At least once annually, with potential for additional cycle counts throughout the year.
- Scope: All aircraft parts, tools, equipment, and GSE located in the warehouse or within aircraft.
- Methodology: Implement a system for tagging, tracking, and counting all inventory items, ensuring accuracy and efficiency while minimizing operational disruption.
- Data Verification and Reconciliation: Thoroughly review and reconcile counted data against inventory records, identifying and addressing any discrepancies.
- Reporting: Generate a detailed report summarizing the inventory process, key findings, discrepancies, and recommended actions. Submit the report to the Director of the Supply Chain, and the Director of Maintenance, with potential distribution to other relevant stakeholders.

### 3.9.9.5 Control

- Prior Planning and Scheduling: Coordinate with relevant departments, including the Director of Maintenance, establish clear guidelines, and allocate sufficient resources.



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2. Inventory Tagging and Tracking: Implement a robust system for tagging and tracking each item throughout the counting process.
3. Data Security and Integrity: Ensure the accuracy and security of inventory data throughout the process.
4. Discrepancy Management: Investigate and address all discrepancies identified during the inventory.
5. Continuous Improvement: Analyze past reports, evaluate new technologies, and conduct periodic reviews to optimize the inventory process.

## 3.9.10 Calibration of Precision Tools, Measuring and Test Equipment

GACAR § 121. app g II c (5)

### 3.9.10.1 Purpose

To guarantee the accuracy and reliability of all Precision Tools, Measuring and Test Equipment (PME) utilized in Riyadh Air aircraft maintenance and inspection. This encompasses establishing a comprehensive calibration program that ensures traceability to National Institute of Standards and Technology (NIST) and/or tool/equipment manufacturer standards or Saudi Arabia Standards Organization (SASO) standards. Additionally, the program identifies the level of accuracy and expiration date for each PME item. This section defines the parameters and control procedures for the periodic testing, inspection, and/or calibration of precision tools and test equipment employed in the maintenance, repair, testing, and troubleshooting of Riyadh Air aircraft and its components.

An initial Calibration Certificate issued by the manufacturer, or another approved calibration agency is mandatory before any PME item is entered into the calibration program. This certificate serves as documented proof of the initial calibration. Subsequent calibrations must be performed by the manufacturer or by approved calibration agencies.

Certificates of Calibration are issued as evidence of subsequent calibrations. Upon receipt of the certificate, a calibration decal is affixed to the PME item for clear identification.

### 3.9.10.2 Responsibility

The Director of Supply Chain is entrusted with the establishment and modification of the Tool Calibration Process. Every individual utilizing PME is responsible for ensuring its operability and calibration validity. The Chief Inspector may conduct random inspections of PME used on Riyadh Air aircraft. Regular audits are conducted by Quality Assurance (QA) to ensure program adherence.



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### 3.9.10.3 Procedure

QA shall ensure the availability of the following within the Tool Crib or any contract agency performing maintenance on Riyadh Air aircraft:

1. A comprehensive master list of all PME items requiring calibration. This list is consistently updated with any newly acquired or re-calibrated equipment.
2. The master list specifies the applicable NIST or manufacturer's calibration standard or Saudi Arabia Standards Organization (SASO) for each PME item. QA is responsible for verifying adherence to these standards and documenting it on the tool calibration form or equivalent document.
3. A robust process to identify and remove any defective PME item from service for repair. This process should also encompass a method for investigating any potential maintenance work affected by the out-of-tolerance or faulty tool.
4. A system for ensuring that each PME item is equipped with a clearly visible calibration decal before being released for service. The decal must prominently display the next calibration due date for user awareness. The decal material should be durable enough to remain affixed until the subsequent calibration.
5. "GO-NO-GO" Tools. As mandated by aircraft/component manufacturers, Riyadh Air requires the use of "GO-NO-GO" tools. The contract agency is responsible for managing and maintaining all "GO-NO-GO" tools used on Riyadh Air aircraft, ensuring their serviceability as per manufacturer specifications.
6. Personal Tools. The utilization of mechanics' personal tools requiring calibration is strictly prohibited in any Riyadh Air maintenance work, regardless of their calibration status. Only PME items certified under the approved calibration program are authorized for use on Riyadh Air aircraft. If a mechanic desires to use personal tools, they must be enrolled in the calibration program.
7. Storage
  - a. All precision tools, measuring and test equipment shall be kept in a designated, secure enclosure, separate from all other tools and parts. This area must be locked with a key accessible only to personnel authorized to control and issue these tools. Written instructions regarding proper storage and protection of the tools must be conspicuously displayed within the area.
  - b. A procedure must be in place to ensure that prior to issuing any PME item for Riyadh Air maintenance work, it is thoroughly checked for compliance with this section. If the tool's calibration date is invalid or it does not meet the applicable written standard, it must be promptly removed from the calibrated tools area and sent to the authorized agency for calibration.
8. Alternative Calibrated Tools. In the event that the appropriate calibrated tool is unavailable from the Tool Crib, arrangements for borrowing the tool from a third party may be made. Tool Crib is responsible for confirming the borrowed PME's valid calibration status, either through verifying



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the next calibration date or inspecting a calibration certificate with the next calibration date clearly indicated.

## 3.9.10.4 Controls

1. List.
  - a. The Tool Crib or contracted maintenance provider shall maintain a comprehensive list of all PME items in their possession. This list must include descriptions, part numbers, serial numbers, and bin locations for each item. Additionally, Tool Crib shall keep a separate list of all "GO-NO-GO" tools used by the maintenance provider. Personal tools are strictly prohibited on this list unless they are enrolled in the calibration program.
2. "Go-No-Go" Assessment.
  - a. All "GO-NO-GO" tools must be inspected by a Technician/Engineer prior to use. This inspection will visually assess serviceability (checking for loose or missing parts and distortion) and accuracy (ensuring no breakage).
3. Calibration Standards.
  - a. Each PME item requiring calibration must have traceable documentation back to the standard used for its calibration (calibration certificate, showing the agency name and accreditation number). The file record for each calibrated tool must contain a written certification from the calibrating agency specifying the exact standard utilized. The record of the calibration and the standard to which it was calibrated must be maintained until superseded by a subsequent calibration.
4. Identification.
  - a. Clearly visible decals must be affixed to each calibrated PME item, displaying the next calibration due date.
5. Training.
  - a. Personnel performing calibration work for Riyadh Air aircraft PME must be adequately trained to the relevant work standards specific to their functions.
6. Access to Storage Premises
  - a. Access to the PME storage area is restricted to authorized Tool Crib personnel only.
  - b. Any access by non-authorized personnel (Inspector, Auditor, and Maintenance) must be in the presence of authorized Tool Crib personnel.
7. Calibration Intervals or follow equipment manufacturer's recommendation:

Tool/Equipment	Frequency
Anti-Skid Tester	12 Months
Calipers	12 Months
Electrical Meters	12 Months
Electronic Scales	12 Months



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Tool/Equipment	Frequency
Micrometers	12 Months
Pitot-Static Tester	12 Months
Pressure Gauges	12 Months
Strobe Light Tester	12 Months
Torque Wrenches	12 Months
Transponder Tester	12 Months

Table 17 Calibration Intervals

## 3.9.10.5 Process Measurements

- Annually, QA shall audit the PME list for calibration dates and verify adherence to the appropriate NIST or manufacturer's standards or Saudi Arabia Standards Organization (SASO) standards. Any discrepancies identified will be documented and reported for corrective action.



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## 3.10 SUPPLIER/ VENDOR EVALUATION

### 3.10.1 Approved Vendors/Suppliers

#### 3.10.1.1 Purpose

This section outlines the procedures for establishing and maintaining a list of GACA/FAA/EASA and other regulatory authority approved vendors/suppliers authorized to provide parts, perform maintenance, preventive maintenance, or alterations on Riyadh Air's aircraft, associated components, and contracted services. The Quality Assurance (QA) department is responsible for ensuring that these vendors have been evaluated, audited, and/or accepted in accordance with Riyadh Air's standards.

#### 3.10.1.2 Procedure

1. Riyadh Air shall adhere to the following criteria when selecting vendors:
  - a. Current Repair Station Certificate/s and Operations Specifications: Issued by the applicable aviation authority (GACA, FAA, EASA, etc.).
  - b. Current Capability List: Approved by the applicable aviation authority.
  - c. Coordinating Agency for Supplier Evaluation (CASE) certification.
  - d. International Organization for Standardization (ISO) certifications or equivalent.
  - e. Aviation Suppliers Association (ASA) accreditation.
  - f. Production Approval Holder (PAH) approvals: These include Type Certificate (TC), Production Certificate (PC), Parts Manufacturer Approval (PMA), Technical Standard Order Authorization (TSOA), Direct Ship Authority, Field Approval, etc., for aircraft and parts/component vendors/suppliers.

#### 3.10.1.3 Responsibility

1. Supply Chain Department:
  - a. Refer to the Approved Vendor/Supplier List in AMOS as needed, ensuring PMA parts are listed and identified.
  - b. Download the approved Vendor List from the AMOS system based on the status updated by Quality Assurance (Active or Inactive).
2. Quality Assurance:
  - a. Assess and evaluate each vendor, as endorsed by the process owner (e.g., Procurement, Maintenance, Engineering, etc.), before activating or deactivating them in the system.



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## 3.10.1.4 Policy

1. Non-certificated vendors: Usage is restricted to emergency or AOG situations and must be monitored by QA to ensure compliance with Riyadh Air's quality standards.
2. Maintenance, preventive maintenance, or alterations: All work performed by contracted agencies must adhere to the applicable manufacturer's manuals, service documents, and Riyadh Air's procedural manuals.
3. Vendor audits:
  - a. QA auditors are responsible for appraising each listed contract agency. Depending on the work performed, on-site or mail desktop audits will be conducted periodically to verify the agency's adequacy and adherence to Riyadh Air and regulatory authority requirements. A vendor's status will automatically become inactive in the system if:
    - i. The QA department fails to renew their approval due to a missed audit within the prescribed period.
    - ii. Open findings against the vendor remain unresolved.
    - iii. The vendor's qualification/certification documents (e.g., approval certificates, capabilities) are not updated.
  - b. Mail Desktop audit exemption: This audit is not applicable to Essential/Substantial Maintenance Providers.
  - c. Outsourced Substantial/Essential Maintenance Organizations: Re-audits will be conducted by QA within 24 months or as necessary, as listed in the GMM.
  - d. New vendor proposals: The VP Engineering and Maintenance (DOM) shall notify QA of any proposed additional vendors and request a vendor evaluation. An on-site or mail desktop audit will be performed by QA depending on the vendor's classification.
    - i. Vendor Survey Checklist shall be used (FORM: RXI/OPS-MNT-MT101)
  - e. Additional audits: These may be conducted as needed based on factors such as:
    - i. Vendor performance monitoring.
    - ii. Changes in vendor facilities, management, or capabilities.
    - iii. Receiving inspection rejection reports.
    - iv. Unscheduled component removal.



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### 4.1 INSPECTION PROGRAM

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## 4 MAINTENANCE AND INSPECTION PROGRAM

GACAR § 121.431 121.663 121.667 121.679 121.app g ii b, C (2), (M)

### 4.1 INSPECTION PROGRAM

#### 4.1.1 Purpose

The program aims to provide sufficiently detailed inspections of aircraft and components to guarantee their safe operation until the next inspection. This ensures that every aircraft released to service is airworthy and meets the standards set forth in Riyadh Air's manuals.

Riyadh Air is responsible for performing aircraft maintenance and inspection within the scope of their approval. This implies they have qualified personnel and the necessary equipment to handle specific tasks.

For any maintenance or inspection falling outside their approved scope, Riyadh Air will contract a qualified Maintenance Provider following the procedures outlined in the manual.

This approach ensures that Riyadh Air maintains control over core maintenance activities while having a clear process for outsourcing tasks beyond their expertise. This helps uphold safety standards and regulatory compliance. Maintenance Provider in accordance with the procedures stated in this manual.

#### 4.1.2 Responsibility

1. VP Engineering and Maintenance (DOM) Responsibility:
  - a. The VP Engineering and Maintenance (DOM) oversees the entire AMP process within Riyadh Air's approved scope.
  - b. They ensure that both Riyadh Air's internal maintenance and any contracted providers have adequate organizational structures to handle outsourced maintenance effectively.
2. Personnel Competence and Certification:
  - a. All Riyadh Air personnel involved in maintenance, preventive maintenance, or alterations on their aircraft must possess the necessary competence, certifications, and appropriate ratings as per GACAR Part 66 regulations.
  - b. For contracted providers outside Saudi Arabia, only personnel certified under GACAR Part 66 or an equivalent determined by GACA are authorized to approve aircraft for return to service (RTS).
3. Regulatory Awareness and Understanding:



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- a. Supervisors, inspectors, mechanics/engineers, and technicians from both Riyadh Air and contracted providers must be familiar with and understand the requirements of various regulations:
  - b. Riyadh Air's GMM (General Maintenance Manual)
  - c. GACAR regulations
  - d. FAA and/or EASA regulations
  - e. Other relevant regulations
- 4. Following Approved Procedures and Practices:
  - a. All personnel working on Riyadh Air aircraft must use the methods, techniques, and practices prescribed in:
    - i. Manufacturer publications
    - ii. Applicable regulatory requirements
    - iii. Riyadh Air manuals
- 5. Maintenance and repair work on Riyadh Air aircraft, including parts and materials used, must ensure the final condition is at least equal to the original or properly altered state.
- 6. Inspectors performing checks on Riyadh Air aircraft must:
  - a. Determine whether the aircraft meets all airworthiness requirements.
  - b. Follow the instructions set forth in the specific inspection program established for the aircraft type.

#### 4.1.3 Procedures

- 1. Maintenance and inspection personnel must adhere to the approved Aircraft Maintenance Program (AMPs) for each aircraft, as specified in the OpSpecs (Operations Specifications).
- 2. Work Scoping and Documentation:
  - a. Maintenance Planning is responsible for:
    - i. Issuing work packages for scheduled checks (C-Checks, structural inspections, engine changes, etc.).
    - ii. Adding supplemental maintenance and inspection requirements to work scopes.
    - iii. Providing additional forms or paperwork as needed.
  - b. All work forms must be signed off by the responsible person, legibly and in blue/black ink or digitally when approved by GACA.



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- c. Task card items not applicable to specific aircraft configurations are marked "N/A" and signed off
3. Task Card Revisions and Approvals:
  - a. Maintenance Planning reviews N/A items for potential task card revisions.
  - b. Any corrections or alterations to AMP task cards must be approved by Engineering and Maintenance Departments before GACA approval.
4. Non-Routine Work and Airworthiness Release:
  - a. Non-routine work forms, component tags, and related paperwork must be completed and signed off before aircraft return to service.
  - b. Non-routine work is logged in a designated log sheet.
  - c. The mechanic/ aircraft maintenance engineer signing the "Airworthiness Release" ensures all paperwork is properly executed and signed.
  - d. Only authorized mechanics/engineers can sign the "Airworthiness Release."
5. Methods for identifying RII (Required Inspection Items) during inspections are found in this GMM (General Maintenance Manual).
6. Procedures for identifying completed work cards/documents and retaining records are also in the GMM.
7. QA reports significant findings to the CASS board during work package audits.
8. Repairs and Inspection Requirements:
  - a. Damage assessment for physically damaged aircraft is done per the Structural Repair Manual (SRM).
  - b. Repairs are made according to the SRM.
  - c. If damage exceeds SRM repair limits, Riyadh Air Technical Services obtains repair data from the aircraft manufacturer.
  - d. Written procedures for identifying and incorporating new inspection requirements due to repairs, alterations, and damage history are in the CAMP (Continuing Airworthiness Management Program) section of the GMM.
9. Corrosion Control Program:
  - a. Corrosion definitions and identification are based on the aircraft manufacturer's CPCP (Corrosion Prevention and Control Program), adopted as Riyadh Air's Corrosion Control Program.
  - b. Inspectors must be trained in determining corrosion types and levels.



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- c. The Chief Inspector and Structural Engineer have final authority to determine the type and level of corrosion.
  - d. Any changes to corrosion type or level are documented with signatures, job titles, dates, and reasons.
10. Short Term Escalation and Approvals:
- a. Refer Reliability Manual for "Short Term Escalation" procedures. Maintenance Providers must adhere to these procedures.
  - b. Changes to the Inspection Program or OpSpecs require GACA approval before implementation.

#### 4.1.4 Control

- 1. Ultimately, the Director of CAMO, through Technical Services, is responsible for ensuring the AMP provides a robust and comprehensive framework for maintaining the aircraft's airworthiness to the highest standards. This contributes to safe and reliable air operations.
  - a. Inspection Intervals:
    - i. The Reliability program as covered in Reliability Manual offers guidance for adjusting inspection intervals from those recommended by the manufacturer. This allows for customization based on specific aircraft usage and conditions.
    - ii. Any amendment to the AMP will be submitted to the GACA for approval prior to its implementation.
- 2. Supplemental Structural Inspections (SSI):
  - a. SSIs are essential for maintaining structural integrity and must be performed in line with both the manufacturer's maintenance manual and the program's requirements.
  - b. Riyadh Air maintenance department and contracted maintenance provider shall be responsible for Supplemental Structural Inspections (SSI) as outlined in the manufacturer's maintenance manual and a specific program focused on reducing inspection intervals for approaching damage tolerance limits.
  - c. Inspection intervals may be reduced when structural components approach total damage tolerance, ensuring proactive monitoring.
- 3. Emergency Equipment Inspections:
  - a. PBE and other emergency loose equipment have mandatory inspection schedules as defined in the manufacturer's manual. This ensures their readiness in case of emergencies.
  - b. Riyadh Air's maintenance department employs a computerized tracking system to manage and monitor the location and status of all emergency equipment and flotation devices.



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4. RII Identification:
  - a. RIIs (Required Inspection Items) are clearly marked on task cards, non-routine cards, and aircraft logbook maintenance sections using designated "RII blocks." This ensures their visibility and completion.
  - b. Task Cards for Scheduled Checks and Other Work: Task cards used for scheduled checks and other maintenance tasks distinctly indicate which items require RIIs.
5. All maintenance tasks must be accompanied by detailed work cards/task cards (with "Dirty Fingerprints") and a corresponding work order before work can commence. This ensures proper documentation and traceability.
6. AMP Tracking System:
  - a. It's a comprehensive system for managing and tracking time-controlled maintenance items.
  - b. It serves two primary purposes:
    - i. Tracking upcoming inspections: It alerts maintenance personnel about upcoming inspections due based on the Time Control Procedure.
    - ii. It allows Maintenance Planning to review and oversee maintenance requirements daily, utilizing AMOS for additional support.
  - c. Types of Monitored Items:
    - i. AD (Airworthiness Directives) directives issued by regulatory authorities to address safety-related issues.
    - ii. SB (Service Bulletins) from aircraft manufacturers for maintenance actions or improvements.
    - iii. Repetitive EO (Engineering Orders): Recurring maintenance tasks outlined by engineering dept.
    - iv. Routine maintenance tasks planned at specific intervals.
    - v. Hard Time Components: Components with strict, calendar-based replacement intervals, regardless of usage.
    - vi. LLP (Life Limited Parts): Components with finite lifespans based on usage or cycles, requiring replacement upon reaching limits.
    - vii. Periodic Inspection Tasks: Scheduled inspections performed at defined intervals to assess aircraft condition and identify potential issues.
7. Reports and Updates:



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- a. Regular reporting promotes clear communication and accountability within the maintenance department.
- b. Timely reports facilitate resource allocation and task prioritization, optimizing workflows and minimizing delays.
- c. The Director Maintenance receives various following reports to provide the current status of maintenance related aspects. It helps the Director stay informed about ongoing maintenance activities, enabling proactive decision-making and problem-solving.
  - i. Daily Status Report: Provides an overall summary of the current maintenance operations, including aircraft availability, completed tasks, and outstanding work.
  - ii. Daily Workload: Outlines the planned maintenance tasks for the day, ensuring efficient resource allocation and personnel schedule alignment.
  - iii. Daily Maintenance Delay Report: Highlights any delays encountered during maintenance activities, informing the Director of potential disruptions and root causes.
  - iv. Incident Report (Form: RXI/OPS-MNT-MT113) (if any): Documents any safety-related incidents or occurrences during maintenance, promoting transparency and corrective action.
  - v. SDR (if any): Refers to a "Service difficulty Report," (FORM RXI/OPS-MNT-MT121) likely detailing serious issues discovered on an aircraft that require immediate attention.
  - vi. C-Check Daily Status Report (applicable to aircraft undergoing C-Check): Provides specific updates on the progress of scheduled heavy maintenance checks for individual aircraft.
  - vii. AOG Report submitted from Day 1 of AOG whenever an aircraft is declared AOG: This report informs the Director immediately when an aircraft becomes Aircraft on Ground (AOG) due to technical issues, enabling swift response and resource mobilization.

#### 8. Task Cards and Documentation:

- a. Riyadh Air maintains detailed task cards and work documentation for inspections, aligning with the AMP/CAMP structure for guidance.
- b. Documentation for special procedures due to major repairs, alterations, or damage history is included in the work package. Riyadh Air or Maintenance Provider ensures that the documentation required for accomplishing the additional or alternate inspection procedures is included with the inspection work package.
- c. Task cards from the "Aircraft Corrosion Prevention and Control Program" are used for corrosion inspections, potentially integrated into the AMP for streamlined management.

#### 9. Corrosion Prevention and Control Program (CPCP)



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- a. Inspection personnel play a crucial role in ensuring aircraft structural integrity and safety. Proper training should be provided for them to confidently and accurately identify the type and level of corrosion encountered during inspections.
  - b. If any doubt arises, the Chief Inspector and Structural Engineer take the final decision on the level and type of corrosion discovered.
10. Shift Turnover Log (Form: RXI/OPS-MNT-MT115)
- a. Essential tool for maintaining continuity and accountability in maintenance operations. They serve as a formal record of ongoing tasks, progress, and any pending issues, ensuring seamless transfer of critical information between shifts and in cases of work interruptions.
  - b. Maintenance personnel are responsible for maintaining Shift Turnover Log. These logbooks must be kept for a minimum of 30 days. However, if all work in progress is completed before the 30-day period, the logbooks can be archived sooner.
  - c. Incoming shifts are required to review and sign the Turnover Log. This signature acknowledges the handover of responsibilities and indicates awareness of outstanding tasks. It serves as a record of communication and acceptance of the current work status.
11. The VP Engineering and Maintenance (DOM) holds the responsibility of ensuring that all maintenance and inspection intervals align precisely with both the OpSpecs (Operations Specifications) and the approved AMP (Maintenance Inspection Program).

#### 4.1.5 Process Measurements

1. Technical Services takes the controls in conducting an annual review of the AMP (Maintenance Inspection Program), ensuring its continuous optimization and effectiveness.
2. QA (Quality Assurance) steps in with a comprehensive audit that delves into the very core of the inspection process.
3. These following comprehensive audits, ensuring the AMP's effectiveness and safeguarding Riyadh Air's commitment to the highest standards of maintenance.
  - a. QA audits the approved AMP, verifying its alignment with the overarching OpSpecs. This guarantees optimal aircraft operation and safety.
  - b. Random aircraft and record audits allow QA to verify the accuracy of corrosion assessments. This proactive approach identifies potential issues early on, preventing larger problems down the line.
  - c. QA scrutinizes RII records to ensure only authorized personnel performed those critical inspections. This safeguard protects aircraft safety and upholds quality standards.



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- d. After scheduled maintenance, QA audits work packages, checking for outdated content, accurate RII (Required Inspection Item) identification, and proper sequencing of inspections. This guarantees comprehensive and efficient maintenance procedures.
  - e. QA examines through ATL/Cabin Logbooks and other sources, detecting any events that triggered special inspections and verifying their meticulous execution. This ensures no potential issues slip through the cracks.
4. QA confirms that during inspections, current task cards and work documents are being used correctly.

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## 4.2 CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM

### 4.2.1 Introduction

1. Riyadh Air utilizes a comprehensive CAMP system to manage recommended and mandatory maintenance for its entire fleet, encompassing aircraft, engines, and components. Their operations adhere to an approved Aircraft Maintenance Program (AMP) Manual, ensuring compliance with industry standards and best practices.
2. Riyadh Air prioritizes human factors principles in its maintenance program design and application, ensuring tasks are optimized for personnel safety and efficiency. Furthermore, the Technical Planning Department develops and prepares custom task cards/work cards specifically tailored to Riyadh Air's unique operational needs and aircraft configurations.

### 4.2.2 Policies

1. Maintenance Schedule:
  - a. Riyadh Air follows a comprehensive maintenance schedule based on three factors: calendar intervals, aircraft flying hours and flying cycles, and the overall airworthiness of the aircraft.
2. Manufacturer Guidelines:
  - a. Riyadh Air maintenance program adheres strictly to the manufacturer's recommended maintenance requirements outlined in MPD. For any additional information or specific alterations, Riyadh Air refers to the detailed Aircraft Maintenance Manuals.
3. Digital Recordkeeping:
  - a. Riyadh Air maintains meticulous aircraft maintenance and operating records using a sophisticated computerized system (AMOS). This system automatically generates periodic backup files for secure data storage and retrieval. Additionally, Riyadh Air continuously tracks all Airworthiness Directives (ADs), scheduled maintenance tasks, overhauls, and life-limited component replacements. Up-to-date reports, records, and forecasts are readily available for transparency and regulatory compliance.
4. Task Categorization:
  - a. Maintenance Review Board (MRB) has established a comprehensive system for categorizing and prioritizing maintenance tasks. Each task is assigned a unique sequence number and is performed based on specific criteria, such as flying hours, cycles, APU hours, or calendar intervals. These tasks are further grouped into:
    - i. Routine Inspection Requirements: Regular checks to ensure optimal performance and system integrity.



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- ii. Systems and Powerplant Inspection Requirements: Thorough inspections of aircraft systems and engines. The tasks encompass a comprehensive maintenance spectrum, from routine upkeep like lubrication and visual checks, to in-depth operational and functional assessments. They also include restoration (overhaul) of critical components and the timely retirement of life-limited parts.
- iii. Structural Inspection Requirements: Detailed checks of the aircraft's airframe for any potential damage or wear. Aircraft undergo Structural Inspections as a preventative measure against fatigue, wear, and accidental damage. These inspections, like GVI, DET, and SDI, are scheduled at specific intervals to catch and repair structural issues before they become critical.
- iv. Corrosion Prevention and Control Program: Proactive measures to prevent and address corrosion issues. The CPCP is a maintenance and inspection program specifically designed to combat structural corrosion in aircraft throughout their operational life. It utilizes established task types and criteria to ensure effectiveness, while task intervals are clearly defined using a calendar year.
- v. Zonal Inspection Requirements: Focused inspections of specific areas of the aircraft based on risk assessment. The Zonal Inspection is a comprehensive approach to inspecting aircraft, dividing it into zones for focused checks. It uses general visual inspections for systems, powerplants, and structure, ensuring airworthiness and optimal condition. When required, interior components like seats and panels can be removed for thorough access. Cleaning precedes every inspection, and intervals are specified in flight hours.
- vi. Certification Maintenance Requirements: Tasks mandated by regulatory authorities for continued airworthiness certification during type certification process.
- vii. Life Limited Components: Components retirement intervals will be monitored by the computerized aircraft records system to ensure timely removal and replacement. This includes the Engine LLC Maintenance Requirements.
- viii. Airworthiness Limitation Requirements: Maintenance actions necessary to comply with operational limitations set by the manufacturer. Airworthiness Limitations (ALS) are scheduled maintenance items required by the design that are considered critical from a System Safety Analysis (SSA) or the Fatigue and Damage Tolerance evaluation of the structure to address potential unsafe conditions of the aircraft. ALS requirements are MANDATORY.
- ix. Category II, III Maintenance Requirements (if applicable): Additional procedures for operating under low-visibility conditions. The Aircraft Maintenance Program (AMP) includes Category II and III maintenance tasks to guarantee performance and reliability of related systems. These tasks are crucial for meeting the strict performance



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requirements of AC 120-29 for CAT I and II operations, even though the company doesn't currently fly to CAT II limits.

- x. Reduced Vertical Separation Minimum (RVSM) Maintenance Program: Specialized maintenance for safe operation at higher altitudes with reduced vertical separation.
- xi. DFDR Maintenance Program: The procedures, tests and intervals are prescribed by the approved MIP.
- xii. ETOPS Maintenance Program: The Configuration, Maintenance and Procedures (CMP) document is developed by the TCH and contains the configuration requirements necessary for extended diversion time operations: inspections, Life Limits, MMEL constraints, and maintenance practices. These requirements are incorporated in Aircraft Maintenance Program (AMP)

## 4.2.3 Human Factor Considerations

1. Riyadh Air ensures that every worker knows that safety is their responsibility, and they feel they are empowered to speak up and take other actions necessary to remedy unsafe conditions.
2. Riyadh Air encourages reporting of Maintenance Errors which are committed by an employee or observed by them.
3. Riyadh Air established a SAFETY CULTURE which is necessary to establish and maintain a high level of safety.
4. Task categorized as critical tasks as covered in CMP will be planned as below considering Human error into account.
  - a. Critical Task Definition: A maintenance task involving removal/installation or assembly/disassembly of several components of the same type fitted to more than one system, a failure of which could have an impact on safety, on the same aircraft or component during a particular maintenance check. (Applicable only if multiple systems are involved).
  - b. Critical Task Planning
    - i. Use of separate work teams together with the accomplishment of appropriate functional checks to verify system serviceability which shall ensure a similar level of system integrity.
    - ii. If separate teams are not available, Critical tasks are staggered on essential or primary systems such that the accomplishments of similar critical tasks on two or more systems are segregated. Such Task shall be planned in such a way that they are separated by at least one flight cycle.



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- iii. Whenever possible critical task shall be carried out in the beginning of the shift and shall not be planned or executed between midnight and 4 am to satisfy circadian rhythm (24 Hours Body cycle)

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## 5 REQUIRED INSPECTION ITEM (RII)

### 5.1 REQUIRED INSPECTION ITEM

GACAR § 121.675 121.687 121.App G II A. App G II C (3), c (4), C (7)

#### 5.1.1 Purpose

This procedure defines the requirements for accomplishing Required Inspection Items (RII).

#### 5.1.2 Applicability

1. Return to Service Personnel
2. Inspectors & Quality Inspectors.

#### 5.1.3 Definitions

1. Error Capture Method
  - a. Error capture methods are those actions performed in addition to the maintenance actions with the objective of detecting any errors which may have occurred during the performance of a maintenance task.
  - b. Required Inspections Item (RII) are the designated error capture method used by RXI for Critical Maintenance Tasks (CMT).
2. Required Inspection Item (RII)
  - a. A RII is an additional inspection performed on a maintenance task by an independent qualified person holding a company authorization for certification of the maintenance task, who is independent of the actual execution of the maintenance task, i.e. someone who has not been involved in the maintenance task in any way.
  - b. The RII system is the endorsed by the General Civil Aviation Authority in the Kingdom of Saudi Arabia in a way to achieve flight safety targets as other common methods used by other regulatory bodies across the world. However, the application differs in the sense that a RII method must be performed by a person other than the person who performed the work.
  - c. The RII system is administered by the Chief Inspector in accordance with the GMM and QMS Manual who approves the nominations of selected personnel on the Roster for RII Inspections according to eligible qualifications. Once designated as a RII Inspector on a particular aircraft, the Inspector shall supervise, perform and control RII requirements and



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accomplishment (i.e. not performing general supervisory duties). The inspections requiring RII attention are specified by each Inspector in reference to the current guidance given in this Chapter.

- d. Elements of a Required Inspection Items
- An RII is required to be performed for each stage of the affected maintenance task (as applicable):
    - Installation / correct assembly check
    - Adjustment / rigging
    - Post installation functional check / test
    - Interconnected system check / test.
  - Typical maintenance tasks requiring RII Inspection:
    - Task classified as Critical Maintenance Task
    - Task involving dual system maintenance (ETOPS/EDTO)
    - Task involving Critical Structure disturbance (Zonal Inspections)
    - Task involving CDCCL Inspections
    - Task involving a major component's change
    - Task involving disturbance of a critical system (Flight/Engine Control)
3. Critical Maintenance Tasks (CMT)
- CMTs are maintenance tasks that require a Required Inspection Item to be performed and are described as:
    - Tasks that may affect the control of the aircraft flight path and attitude, such as installation, rigging and adjustment of flight controls.
    - Aircraft stability control systems including autopilot and fuel transfer systems.
    - Tasks that may affect the propulsive force of the aircraft in the air or on the ground, including installation of aircraft engines and propellers.
    - Calibration or rigging of engines, transmissions and gearboxes.
    - Any system by which the undercarriage is raised or lowered.
  - Data Sources for Identification of Critical Maintenance Tasks:
    - The following sources are used for the identification of Critical Maintenance Tasks:
      - Technical Safety Reports
      - Confidential Safety Reports



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- 3) Results from internal and external audits
- 4) Normal operations monitoring and surveillance systems
- 5) Technical investigation conclusions and recommendations

## 5.1.4 Responsibilities

1. Technical Operations / Maintenance Personnel
  - a. Whenever a flight control and/or engine control system or critical structure is disturbed, the authorized person disturbing the system/structure must record the requirement for RII on the relevant Non-Routine Card. An authorized person responsible for certification of the maintenance task will carry out the initial inspection followed by an independent qualified person who will carry out RII inspection and certify the relevant entry on the Non-Routine Card.
  - b. Whenever dual system maintenance have to be carried out by an Inspector in-charge of the task or zone, needs to ensure that different Inspectors carry out and certify the work on each system. RII items may only be certified by an inspector accepted by Quality through the approved Roster.
  - c. Qualifications of Personnel Performing Required Inspection Item
    - i. The independent qualified person must hold a company authorization for certification on the same aircraft type, engine or component to perform a Required Inspection Item over the scope of the performed maintenance task for which he intends to certify a RII.
    - ii. In addition, the independent qualified person must be nominated to the Quality Inspection Division for inclusion in the RII Roster after assessing eligibility.
2. Maintenance Planning
  - a. Planning Officers need to ensure RII Inspection tasks are appropriately classified and identified on work cards during inspections' program preparations and any buildup of aircraft maintenance stage sheets whilst preparing work packs. The evaluation must consider the classifications detailed in Paragraph 5.1.3-2. d. ii.
3. Engineering / Technical Services
  - a. Engineers must specify the requirements for RII inspections when preparing Engineering Orders or similar documents that result in classifying the related work as detailed in Paragraph 5.1.3-2. d. ii
4. Technical Operations / MCC
  - a. Maintenance Managers and MCC Controllers / AOG Desk are responsible for ensuring that contracts arranged for any contracted maintenance clearly specify the RII requirements to



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any Maintenance Service Provider and classification of work is done as detailed in Paragraph 5.1.3-2. d. ii

5. Determining the requirement for a Required Inspection Item
  - a. ROUTINE CARDS
    - i. The Continuous Aircraft Maintenance Program (CAMP) will identify in AMOS those tasks requiring RII Inspections as per the following guidelines:
      - 1) A CMT is carried out.
      - 2) A maintenance task that involves a major component change or disturbance of a system listed in Table 1, that would have an impact on the safe operation of the aircraft if the task is not carried out correctly.
  - b. NON-ROUTINE CARDS
    - i. The authorized person holding a company authorization for certification of the maintenance task, while carrying out any maintenance task may consider that an additional inspection of the maintenance task is warranted. The authorized person is the person who performs or supervises the maintenance task and assumes full responsibility for the completion of the task in accordance with the applicable approved maintenance data. Should a Required Inspection Item be required, the authorized person responsible for carrying out the maintenance task shall determine the stages of maintenance requiring such RII Inspection by classifying the card accordingly

## SUGGESTED WORDING TO BE INCLUDED IN THE NON-ROUTINE STAGE FOR RII INSPECTION:

"CERTIFIED THAT RII INSPECTION HAS BEEN CARRIED OUT FOR ITEM ( ) AND IS SATISFACTORY."

## 5.1.5 Performing a Required Inspection Item (RII)

GACAR §§ 121.APP G II C (4)

1. Consideration must be made to the following points as they relate to the performance of the Required Inspection Item:
  2. All the components of the system that have been disturbed during the maintenance task must be inspected for correct assembly and locking.
    - a. The system as a whole must be inspected for full and free movement over the complete range.
    - b. Control Cables must be tensioned correctly with adequate clearance at secondary stops.



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- c. The operation of the entire system must be observed to ensure that it is operating in the correct sense.
  - d. Any systems that are interconnected so that they affect each other must be checked to ensure that all related systems operate over their full range of movement.
  - e. Software that is part of the CMT must be checked for version and compatibility with the aircraft configuration.
3. Documenting a Required Inspection Item
- a. INSPECTOR
    - i. The assigned authorized person is the one who certifies the maintenance task by carrying out the initial inspection and assumes full responsibility for the completion of the maintenance task in accordance with the applicable approved maintenance data and internal procedures.
    - ii. The authorized person is also responsible for raising the requirement for a RII Inspection on the Non-Routine Card and ensuring that the correct stages for RII Inspection are detailed.
  - b. RII INSPECTOR
    - i. The Independent Qualified Person is the person who performs the Required Inspection Item and certifies that the maintenance task has been satisfactorily completed and that no deficiencies have been found.
    - ii. The RII Inspector must not have been involved in the maintenance task to certify the RII of the maintenance tasks.
    - iii. Does not issue the Return to Service or certify for completion of the maintenance task after the Required Inspection Item has been carried out.
4. Upon completion of an RII inspection:
- i. Acceptable Condition:
    - 1) The authorized inspector signs off in the designated block on the work card or ATL (Aircraft Technical Log).
  - ii. Unacceptable or rejected Condition:
    - 1) The authorized inspector creates a new discrepancy for the deficient item.
    - 2) They indicate the need for additional work adjacent to the original corrective action.
    - 3) If the item is RII, the new discrepancy is also treated as an RII item.



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## 5. Defects found during a Required Inspection Item

- In the event that an error is detected during a Required Inspection Item, it is required to record the defect and carry out another RII once appropriate rectification action has been completed.
- Errors detected during Required Inspection Items will be recorded by raising an entry on the Non-Routine Card to record the defect and its rectification. This Non-Routine Card (or another cross-referenced work card) must include a call-up for another RII of the work to be performed.

## 6. Systems / Components requiring RII by ATA Chapter

- The below table provides guidance by ATA chapters on which systems require RII Inspections. It does not however, provide guidance on all tasks and CMTs must always be determined using the definition provided in the above definitions detailed in Paragraph 3.
- This table is non-exhaustive and is presented for **guidance only**. The responsibility for ensuring a RII is raised and carried out correctly lies solely with the Inspector responsible for certifying the maintenance task.

### Key:

R - Required  
X - Required if necessary  
N/R - Not Required

System / Component Name	Correct Assembly	Rigging / Adjustment	Functional Test / Leak Check	Interconnected Systems
<b>ATA 22 – Auto flight</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 24 – Electrical Avionics Systems</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 26 – Fire Protection</b>				



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System / Component Name	Correct Assembly	Rigging / Adjustment	Functional Test / Leak Check	Interconnected Systems
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 27-Flight Control System</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 28 – Fuel System</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 29 – Hydraulic Power</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 32-Landing gear System</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft	R	X	X	X



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System / Component Name	Correct Assembly	Rigging / Adjustment	Functional Test / Leak Check	Interconnected Systems
should the task not be carried out correctly.				
<b>ATA 34 – Pitot Static Systems</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly. Including Quick release couplings.	R	X	X	X
<b>ATA 35 – Oxygen</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 36 – Pneumatic Systems</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 52 – Doors</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 72 – Engine</b>				



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System / Component Name	Correct Assembly	Rigging / Adjustment	Functional Test / Leak Check	Interconnected Systems
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 73 – Engine Fuel and Control</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 76 – Engine Controls</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>ATA 79 – Engine Oil</b>				
Any maintenance task that involves a major component change or disturbance that would have an impact on the safe operation of the aircraft should the task not be carried out correctly.	R	X	X	X
<b>Additional Components / Tasks</b>				
Any maintenance carried out that disturbs an emergency escape system.	R	X	X	X
Windshield Installation.	R	R	R	N/R



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System / Component Name	Correct Assembly	Rigging / Adjustment	Functional Test / Leak Check	Interconnected Systems
CDCCL tasks that disturb the system.	R	X	X	X
Flight Deck seat installation. Mechanical Installation and Mechanical function test only.	R	R	R	N/R
FMS Software Updates for applicability and version.	R	N/R	R	N/R
Major modifications / Major repairs.	R	X	X	X
Fan cowl latching.	R	R	N/R	N/R
Bleeding of a Hydraulic System.	R	N/R	R	N/R
Maintenance that disturbs the aircraft NWS system.	R	R	R	R
Obstruction of the pitot static ports after any maintenance task that requires their protection.	R	N/R	N/R	N/R
Engine oil caps post servicing.	R	N/R	N/R	N/R
Installation or Adjustment of the RAT.	R	R	R	N/R
Mechanical security of Instrument panels.	R	N/R	N/R	N/R
Engine Mounts	R	N/R	N/R	N/R
Thrust Reverser	R	N/R	R	N/R
Engine Borescope plugs and cover plates	R	N/R	R	N/R

Table 18 Systems / Components requiring RII by ATA Chapter

## 7. Roster

- The Chief Inspector maintains an updated list of authorized RII personnel, with a copy provided to Quality Assurance for reference.
- Maintenance Department: Maintains an updated list of RII authorized individuals within the "Roster of Authorized Inspection Personnel" provided by Quality Inspection Division (QI).
- Quality Inspection: Provides the "Roster of Authorized Inspection Personnel" and collaborates with the Maintenance Department on RII training and staffing.



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- i. Both Divisions work together to ensure enough qualified personnel are trained and authorized to maintain sufficient RII inspectors for Riyadh Air's operations. This proactive approach aims to prevent staffing shortages impacting RII compliance and aircraft safety.
- d. Roster Details:
  - i. The "Roster of Authorized Inspection Personnel" clearly identifies each authorized person by:
    - 1) Name: Individual's full name for accurate identification.
    - 2) Occupational Title: Their position within the organization.
    - 3) Authorized Inspections and Special Job Tasks: Specific list of RII items and any additional specialized tasks they are qualified to perform.

## 5.1.6 One-Time Required Inspection Authorization

- 1. If there's no qualified inspector (Maintenance Provider RII authorized personnel) available at a station where an RII inspection is required, the following process shall be followed.
  - a. The need for an OTA is communicated to the MCC.
  - b. The MCC assesses the request and ensures it meets necessary criteria (e.g., urgency, justification).
  - c. The Chief Inspector evaluates the qualifications of the inspector requesting the OTA.
  - d. If approved, the Chief Inspector issues the OTA to the inspector.
- 2. OTA shall be handled on a case-by-case basis. All OTAs shall require prior approval from GACA.

## 5.1.7 Controls

- 1. Chief Inspector's authority:
  - a. The Chief Inspector has the sole authority to grant RII authorization to Riyadh Air maintenance and inspection personnel.
  - b. This direct control ensures a rigorous evaluation and approval process specific to Riyadh Air's internal procedures and personnel.
  - c. The Chief Inspector is responsible for ensuring all maintenance providers, including Riyadh Air and any contracted entities, comply with the relevant RII guidelines and procedures. This involves verifying they possess the necessary qualifications, equipment, and adherence to safety and quality standards.



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- d. The Chief Inspector emphasizes the principle of segregation of duties. The person performing the actual maintenance work on an aircraft should not be the same person who is inspecting that work. This helps prevent potential bias and ensures thorough verification of the completed tasks.
2. Airworthiness release:
  - a. Before an aircraft is returned to service, the designated individual responsible for signing the airworthiness release must confirm all General Maintenance Manual (GMM) requirements have been met.
  - b. This final check signifies the aircraft is airworthy and safe for operation.
3. Authorization for other providers:
  - a. For other contracted maintenance providers already holding "Part 145 approval" or equivalent inspection authorization, the process follows their internal RSM (Repair Station Manual).
  - b. The Quality Assurance Division (QA) will still audit these providers during scheduled audits to ensure adherence to their procedures and overall compliance with RII requirements.

## 5.1.8 Process Measurements

1. QA's primary responsibilities:
  - a. Conducting regular audits of aircraft records to verify RII compliance with Riyadh Air's policies and procedures.
  - b. Examining the RII authorization process to ensure only trained, qualified, and authorized individuals receive such authorizations.
  - c. Assessing aircraft records to confirm RII items are correctly identified according to the manual.
  - d. Evaluating RII authorizations to guarantee individuals hold appropriate certifications, meet qualification standards, possess specific aircraft training, and are formally authorized.
2. QI's primary responsibilities:
  - a. Ensuring only RII-authorized individuals perform both maintenance work and inspection buybacks.
  - b. Conducting spot checks to verify personnel carry their RII authorization cards while working.
  - c. Maintaining and providing Maintenance with an updated roster of RII-authorized personnel.



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- d. Recordkeeping:
- i. Maintaining records of recommendation letters containing CM, RII, and RTS approvals.
  - ii. Maintaining records of RII and RTS one-time authorizations issued.
  - iii. Retaining copies of each authorized individual's recommendation letter for filing.

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## 5.2 COUNTERMAND PROCEDURES

GACAR §§ 121. APPENDIX G II C (5), C (8)

### 5.2.1 Purpose

Maintaining independent decision-making in inspection processes is crucial for ensuring safety and quality. Regulations often stipulate the need for clear procedures to prevent unauthorized countermanding of inspection decisions. Restrict the ability to countermand inspection decisions to specific individuals, such as designated QI supervisors or the overall manager responsible for both inspection and maintenance.

### 5.2.2 Harmonizing Inspection Decisions:

1. Limited Authority for Countermanding:
  - a. Only QI Supervisors or the Chief Inspector have the authority to countermand an authorized inspector's decision regarding inspection items.
2. Documentation and Sign-Off:
  - a. When countermanding occurs, the countermanding person (Supervisor or Chief Inspector) must sign off and stamp opposite the authorized inspector's sign-off to ensure accountability.
3. Finality of Decision:
  - a. The decision made by the Supervisor or Chief Inspector regarding inspection items is considered final, upholding their authority within the process.
4. Chain of Authority:

The hierarchical structure for inspection decisions follows this order: Supervisor, Chief Inspector, and ultimately, the VP Engineering and Maintenance (DOM).



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## 6 MAINTENANCE RECORDKEEPING SYSTEM

### 6.1 AIRCRAFT RECORDS AND RETENTION

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## 6 MAINTENANCE RECORDKEEPING SYSTEM

### 6.1 AIRCRAFT RECORDS AND RETENTION

GACAR §§ 121.699, 121.703 121.1561

#### 6.1.1 Purpose

1. All records for aircraft, engines, and time-controlled items must be up to date in both electronic and physical formats. Technical Records updates both formats monthly and archives older records after the retention period.
2. Accessibility for authorized personnel:
  - a. The records should be readily accessible to authorized personnel for determining:
    - i. Total time in service for airframe and each engine.
    - ii. Status of life-limited parts of each airframe, engine, and appliance.
    - iii. Time since last overhaul for relevant items.
    - iv. Current inspection status.
      - 1) The time since the last inspection required by the inspection program.
    - v. Status of applicable Airworthiness Directives (ADs) including compliance dates and methods.
      - 1) ADs with recurring requirements shall contain the time and date of the next required action.
    - vi. List of major alterations and repairs.
    - vii. Service Bulletins (SBs) translated to Engineering Orders (EOs).
3. Overall, these procedures ensure reliable recordkeeping of Riyadh Air's aircraft for safety, compliance, and operational efficiency.

#### 6.1.2 Policy

1. Retention until Retirement: Records essential for demonstrating compliance with Airworthiness Release requirements under GACAR §§ 121.1545 and 121.1565 must be retained by Technical Records until the aircraft is retired.
  - a. Specific Records for Retention:
    - i. Non-Routine Cards



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- ii. ATL (Aircraft Technical Log) / ACL (Aircraft Configuration Log):
  - iii. White and Pink copies (if white unavailable): Unlimited retention
  - iv. Yellow copy: Minimum 2 months retention
  - v. Routine, airworthiness compliance, component, and all other required documents
- b. Component and Inspection Tracking:
- i. Hourly Controlled: Tracked by Total Aircraft Time
  - ii. Cycle Controlled: Tracked by Total Aircraft Cycles
  - iii. Tracking by Calendar Due Date:
    - 1) Each component and inspection have its own individual calendar due date based on various factors like:
      - a) Calendar life limit: This refers to the maximum time a component can remain in service before requiring replacement, measured from its date of manufacture.
      - b) Calendar time limit between repetitive inspections: Some inspections need to be performed at regular intervals, measured in calendar time (e.g., every 6 months).
        - i) If a calendar-controlled inspection is completed while the aircraft is undergoing maintenance (check status), the completion date will be recorded on the day the aircraft returns to service, not on the actual date of the inspection.



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#### 6.1.3 Period of Retention

Summary of the aircraft records retention policy at Riyadh Air:

Record Type	Retention Period
Repair, Alteration, and Rebuilding Records	5 years (paper copy) Unlimited (electronically)
Routine and Non-Routine Maintenance Records	5 years (paper copy) Unlimited (electronically)
Records of Last Overhaul (Airframe, Engine, Appliances)	Unlimited
Engineering Orders (EOs) and Engineering Notices (ENs)	Unlimited

*Table 19 Technical records retention period*

2. All required documents remain part of the historical record.
3. Transfer of Records upon Sale:
  - a. Records specified in paragraphs 1 and 2 must be transferred to the new owner when an aircraft is sold (GACAR § 121.703).
  - b. When Riyadh Air sells an aircraft, engine, or appliance, it must provide all relevant maintenance, rebuilding, and alteration records to the new owner or operator.
  - c. Format choices: Records can be delivered in either:
    - i. Plain language: This is the default format, ensuring easy readability for the new owner.
    - ii. Coded form: The transferee can choose this option, subject to the preservation and retrieval of information requirements of GACAR § 121.699.
4. Riyadh Air must include the total time (hours and/or cycles) since the last overhaul for any items that require overhauls at specified intervals, as per their approved maintenance program.
5. Riyadh Air must make all maintenance records required by GACAR § 121.699 readily available for inspection by the relevant regulatory authority. This ensures transparency and accountability in maintaining airworthiness standards.



RIYADH AIR  
طيران الرياض

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- 6 MAINTENANCE RECORDKEEPING SYSTEM  
6.1 AIRCRAFT RECORDS AND RETENTION

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## 6.1.4 Responsibilities

Both the Director of CAMO and Technical Records share the responsibility for ensuring that all aircraft records are maintained and retained in accordance with the outlined policy.

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6.2 ELECTRONIC RECORD KEEPING

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## 6.2 ELECTRONIC RECORD KEEPING

GACAR § 121.1567 121.APP G II D (1)

### 6.2.1 Purpose

Riyadh Air rely on AMOS, a comprehensive software package, to manage its entire maintenance, engineering, planning, and logistics operations. This complex system acts as the central hub for all maintenance activities, from planning and scheduling to managing parts and documentation. It serves as a vital communication and record-keeping tool for the Engineering and Maintenance Department, ensuring efficient coordination and adherence to strict safety regulations. In essence, AMOS is the backbone of Riyadh Air's maintenance operations, keeping their fleet running smoothly and safely.

The Document Management Systems (DMS) will be utilized to store and maintain corporate publications, approved manuals and any other documentation such as OEM Manuals or working instructions relevant to Riyadh Air's operations.

Document Management Systems (DMS) serve as a digital library through which all documents are distributed to Riyadh Air employees.

### 6.2.2 Responsibility

The Riyadh Air IT Department is responsible for maintaining and managing user access to DMS and AMOS modules.

### 6.2.3 Procedures

1. Manager Responsibility:
  - a. IT Manager is responsible for maintaining and managing user access to DMS and AMOS modules.
2. Access Method:
  - a. DMS and AMOS can be accessed via the internet using a computer.
3. Individual User IDs:
  - a. Each Riyadh Air employee will have a unique user ID to access the specific DMS and AMOS modules they need for their tasks. Sharing user IDs is strictly forbidden.
4. Access Request:
  - a. Department Managers are responsible for requesting access for their employees.
5. Data Storage and Retrieval:



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- a. Both DMS and AMOS can store and retrieve records, allowing employees to view information and print paper copies if necessary.
  - b. All aircraft-related data will be stored and can be accessed in real time till the time the aircraft is in-service and also preserved as historical records after the aircraft is transferred or withdrawn.
6. To preclude the loss of records due to hardware or software failures, an electronic system is programmed in DMS/AMOS to create a back-up file on a daily basis.
7. Security:
- a. Individual user accounts are mandatory for accessing these modules. Sharing user IDs is strictly prohibited.
  - b. This security measure aims to ensure only authorized personnel can access sensitive records stored and maintained within DMS and AMOS. Unauthorized access could lead to data breaches, privacy violations, or operational disruptions.
  - c. Training for staff and third-party providers in the use of AMOS will be provided. The respective managers will be responsible for the training of their subordinates. The VP Engineering and Maintenance (DOM) will approve training to third-party providers.
8. When requested, maintenance records can be made available to GACA and AIB in paper or electronic format.
9. Access to DMS and AMOS will be provided to GACA, AIB with the approval of the VP Engineering and Maintenance (DOM). RXI will provide assistance in viewing the records to GACA when requested.

#### 6.2.4 Audits

- 1. Regular system integrity checks proactively identify and address potential software issues before they impact operations or data security.
- 2. System integrity checks will be conducted every 60 days, maintaining a consistent and proactive approach to identifying potential issues.
- 3. A record of each audit will be stored on a separate drive, isolating the information from potential system vulnerabilities and ensuring its integrity.
- 4. The records will be retained indefinitely, providing long-term visibility into past audits and facilitating investigations if needed.



## 7 CONTRACTED MAINTENANCE

GACAR § 121.659 121.681 GACAR § 121.app g ii C (11)

### 7.1 CONTRACTRD MAINTENANCE PROCESS

GACAR § 121.659 121.675 121.681 GACAR § 121.app g ii C (11)

#### 7.1.1 Purpose

Riyadh Air partners with external maintenance organizations to handle tasks beyond their internal capabilities. This includes higher-level checks, emergency maintenance, component repair and overhaul, major modifications, non-destructive testing, and emergency equipment repair. Additionally, Riyadh Air can direct these partners to perform various maintenance, preventive maintenance, alteration, and service tasks as needed.

Maintenance Provider refers to any individual or organization that has entered into a formal, written Service Level Agreement (SLA) with Riyadh Air to perform maintenance, preventive maintenance, or alterations on Riyadh Air aircraft and their components. These agreements, encompassing comprehensive documentation, establish the following fundamental principles:

All maintenance activities must be executed in compliance with Riyadh Air's approved manuals and procedures.

The SLA outlines the specific responsibilities of both Riyadh Air and the Maintenance Provider, ensuring a shared understanding of roles and expectations.

All aspects of the agreement, including maintenance tasks, responsibilities, and compliance requirements, are accurately and thoroughly documented.

#### 7.1.2 Responsibility

1. Riyadh Air:
  - a. Bears primary responsibility for aircraft airworthiness.
  - b. Ensures airworthiness through established policies and procedures, covering airframes, engines, and components.
2. VP Engineering and Maintenance (DOM):
  - a. Ensures maintenance activities at contractor facilities align with Riyadh Air procedures and applicable GACA regulatory requirements,
  - b. Holds authority to enforce compliance with Riyadh Air policies, procedures, and regulations.



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3. Quality Assurance (QA):
  - a. Ensures contracted maintenance organizations adhere to Riyadh Air's approved maintenance program and approved methods, techniques, and practices.
  - b. Verifies that each contracted organization has qualified personnel responsible for compliance and necessary personnel for planning, monitoring, performing, supervising, inspecting, and releasing maintenance work.
  - c. Assesses contractor compliance through the Quality Audit system.
4. Technical Publications:
  - a. Provides electronic copies of current GMM, Aircraft Maintenance Manuals, and applicable supplemental manuals via FTP.
5. Director Technical Training (or designee):
  - a. Provides necessary training to contracted maintenance personnel (documentation, policies, etc.).
  - b. Relevant training and materials are provided to contractors through Read and Sign (FORM: RXI/OPS-MNT-MT120), unless otherwise directed by the VP Engineering and Maintenance (DOM).

## 7.1.3 Authority

While the Head of Technical Contracts has the authority to propose changes to Riyadh Air's policies and procedures concerning outsourced maintenance providers, careful coordination and assessment are essential prior to implementing any modifications. Due to the intricate nature of contract maintenance, negotiations with the maintenance provider must be conducted to thoroughly evaluate the potential impact of proposed changes on existing procedures and controls. Following a joint review of the proposed amendments, both parties will determine, subject to final approval by the VP Engineering and Maintenance (DOM), whether the changes are warranted based on their anticipated impact.

## 7.1.4 Procedures

1. To ensure the quality and suitability of external maintenance providers, Riyadh Air's Quality Assurance (QA) department conducts thorough audits to evaluate their capabilities and adherence to established standards. External providers must deliver services in a manner that aligns with the work standards outlined in IATA AHM 810 Standard Ground Handling Agreement Article 5.
2. QA designates contractors as qualified for either essential/substantial maintenance or non-essential maintenance.



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- a. Maintenance organizations performing essential/substantial maintenance for Riyadh Air must be officially approved and listed within the General Maintenance Manual (GMM).
  - b. The GMM provides a detailed definition of what constitutes essential/substantial maintenance.
  - c. These approved organizations must have an Accountable Executive who is deemed acceptable by the relevant regulatory authority. This individual bears overall responsibility for managing and supervising the maintenance organization's operations.
3. On-Site Audits:
    - a. Regular on-site audits verify that contractors maintain adequate facilities, tools, equipment, materials, and trained personnel. Discrepancies are addressed through follow-up audits.
    - b. QA audits verify that maintenance provider personnel directly involved in maintenance, preventive maintenance, alterations, or RII tasks hold appropriate certifications.
    - c. Audit checklists and training records are maintained by QA and the Maintenance/Inspection Training Program, respectively.
  4. Personnel Training:
    - a. Contract personnel receive training on Riyadh Air's procedures, documentation, and manuals prior to approval.
  5. GACA Notification and Approval:
    - a. For essential/substantial maintenance contractors, QA notifies the GACA Principal Maintenance Inspector (PMI) and updates the GMM with the approved provider list. Approval from GACA is required before notifying the VP Engineering and Maintenance (DOM).
  6. Contractual Agreement:
    - a. Riyadh Air's Head of Technical Contracts is responsible for establishing a formal written contract or Service Level Agreement (SLA) with Essential/Substantial Maintenance Providers.
    - b. The agreement clearly outlines the scope of work to be performed.
    - c. Providers must adhere to several standards in addition to the contractual agreement:
      - i. Riyadh Air's Maintenance Manuals
      - ii. Regulatory Approved Maintenance Program
      - iii. Current Manufacturer's Maintenance Manuals
      - iv. Instructions for Continued Airworthiness (ICAs) prepared by the manufacturer.
  7. Component Maintenance:



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- a. The Purchasing Department initiates Repair/Service Orders for component maintenance vendors.
  - b. Order Specifications:
    - i. Orders mandate that vendors perform work in accordance with current manufacturer specifications for overhaul, repair, bench checks, tests, and related procedures.
    - ii. Vendors are instructed to use their own forms during tear-down, rebuild, and test phases.
    - iii. Orders specify that vendors must comply with any applicable Airworthiness Directives (ADs) or other relevant documentation.
  - c. Providers must submit teardown or significant finding reports to Riyadh Air along with work records for repaired or overhauled components. The Purchasing Department requires a "Teardown or Shop Finding Report" before processing payment for the work. These reports must be submitted using the vendor's own forms.
8. Airworthiness Responsibility:
- a. Riyadh Air retains primary airworthiness responsibility, regardless of contractual agreements.
9. Duty Time Limitations:
- a. Contracted organizations must adhere to Riyadh Air's duty time limitations policies.

#### 7.1.5 Unplanned Maintenance

1. Authorization and Approval:
  - a. Unplanned maintenance can be performed by authorized mechanics, repair stations, manufacturers, or air carriers to return aircraft to service.
  - b. The Pilot-in-Command initiates the process by contacting the Maintenance Control Center (MCC).
  - c. The MCC has authority to make on-the-spot arrangements, subject to evaluation by the Chief Inspector.
2. Maintenance Standards and Documentation:
  - a. All unplanned maintenance must adhere to Riyadh Air's CAMP (Continuous Airworthiness Maintenance Program).
  - b. The MCC ensures proper paperwork completion, including signing of the ATL (Aircraft Technical Log) with the provider's name and certificate number



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- c. Flight crew members verify proper documentation of emergency or unplanned maintenance.
- 3. RII and Essential/Substantial Maintenance:
  - a. If a Required Inspection Item (RII) is needed during unplanned maintenance and a contracted provider's authorized person is unavailable, Quality Inspection (QI) verifies that the person authorized to perform the RII meets GMM standards.
- 4. For unplanned essential/substantial maintenance, Quality Assurance (QA) conducts an audit of the vendor. Upon satisfactory results, the Head of Technical Contracts requests the vendor's addition to the air carrier's essential/substantial maintenance provider list.

#### 7.1.6 Control

- 1. Authorization and Approval:
  - a. The VP Engineering and Maintenance (DOM) ensures that essential/substantial maintenance providers only perform maintenance tasks for which they are approved.
  - b. Riyadh Air exclusively uses maintenance providers approved by applicable regulatory authorities.
  - c. QA maintains a readily accessible list of all maintenance providers, including their authorized activities and dates of their most recent QA audits.
- 2. Vendor Audit Scope:
  - a. Vendor audits assess whether providers have adequate facilities to house the aircraft being worked on.
  - b. QA audits ATL entries and work packages to verify that providers use appropriate forms to document maintenance performed on Riyadh Air aircraft and components.
  - c. Audit verify that providers hold necessary certifications from GACA, FAA, EASA, or equivalent authorities, as applicable, to perform the requested work.
  - d. QA verifies that personnel employed for emergency maintenance meet the standards and procedures outlined in the provider's manual.
  - e. If required, audits ensure providers are equipped to handle components that necessitate environmental protection, including electrostatic discharge protection.
  - f. Audit confirm that providers have the tools specified in Riyadh Air technical manuals for the work being performed.
  - g. If providers use their own tools, they must have a compliant Tool Calibration Program.



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- h. Audits assess whether providers have environmentally controlled and well-lit facilities that enable work to be performed at the highest quality and safety levels.
- i. Providers have current copies of the GMM or relevant sections, along with additional instructions, procedures, and service forms as needed, to prepare records and reports in accordance with Riyadh Air manuals.
- j. Audits confirm that providers' maintenance training, including recurrent training, is current, complete, and meets Riyadh Air standards for areas such as GMM, MEL, Maintenance/Inspection Program, Records and Reports, Hazardous Materials, RIs, Release to Service, and others.
- k. They ensure providers use current manufacturer's repair and overhaul procedures, as well as GACA, FAA, or EASA (if applicable) approved data for Major Repairs and Alterations.
- l. Vendor audits verify that providers' personnel directly in charge of maintenance, preventive maintenance, alterations, or RIs hold appropriate certifications.
- m. Audits consider whether maintenance providers participate in an approved drug testing and alcohol abuse/misuse prevention program, if required.

### 7.1.7 Riyadh Air Audit

- 1. Service Difficulty Report (SDR)/Mandatory Occurrence Reporting (MOR) Timeliness:
  - a. Audits verify that Riyadh Air maintenance and contracted providers submit SDRs or MORs to Quality Inspection (QI) within 48 hours of reportable incidents, in preparation for submission to relevant authorities.
- 2. Emergency Maintenance Personnel Training:
  - a. Audits scrutinize documentation to ensure personnel involved in emergency maintenance have received training equivalent to Riyadh Air's curriculum for the items they maintain, as well as procedures for documenting and recording maintenance actions.
- 3. Maintenance Provider Personnel Training:
  - a. Audits verify that maintenance provider personnel are trained and current on Riyadh Air's maintenance policies and procedures. This aims to ensure outsourced organizations perform all maintenance of Riyadh Air aircraft and components in compliance with Riyadh Air manuals.

### 7.1.8 Process Measurements

- 1. Audit Frequency:
  - a. Quality Assurance (QA) conducts audits of maintenance providers every 24 months.



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2. Audit Scope:
  - a. QA audits providers before adding them to the Air Carrier Essential/Substantial Maintenance Provider list.
  - b. QA audits completed work packages to verify the use of Riyadh Air documents for maintenance records.
  - c. QA audits provider's documentation and records, ensuring audit reports are submitted to the Chief Inspector.
  - d. QA ensures providers submit to Riyadh air Service Difficulty Reports (SDRs) or Mandatory Occurrence Reports (MORs) within 48 hours of findings.
  - e. QA audits providers (excluding essential/substantial providers) to ensure compliance with Work Orders, Purchase Orders, Repair Orders, Service Orders, and authorized maintenance levels.
  - f. QA audits providers' training and records to ensure alignment with Riyadh Air standards.
  - g. QA verifies providers' drug and alcohol testing programs, if applicable.
  - h. QA ensures compliance with Riyadh Air manuals for emergency maintenance personnel use.
3. Record-Keeping:
  - a. QA maintains audit results and corrective actions for 2 years, accessible for regulatory review.

## 7.1.9 Identifying Measurable Specifications Process

1. Policy:
  - a. All departments outsourcing functions to external providers must establish measurable specifications within contracts or service level agreements (SLAs).
2. Agreement Types:
  - a. Maintenance agreements are required for all outsourced maintenance work, ranging from substantial maintenance (e.g., heavy maintenance, engine overhaul) to simple tasks (e.g., line maintenance, minor component repairs).
  - b. Agreement complexity varies based on the work involved, spanning elaborate contractual specifications to simple work orders.
3. Measurable specifications are explicitly stated within agreements or referenced in separate documents.
4. Mandatory SLA measurable Standards:



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- a. Compliance with GACA requirements, applicable regulations, and standards.
  - b. Adherence to specific industry standards, clearly identified by name within the agreement.
  - c. Regulatory authorization/approval for subcontractors, if required.
  - d. Audits as a monitoring method, along with other QA tools.
  - e. Provider reporting of non-compliance, hazards, and issues.
5. Additional SLA Examples:
- a. Audit results (number of findings, severity level percentages).
  - b. Compliance with reporting systems for immediate notification of significant defects.
  - c. On-schedule release to service.
  - d. Post-maintenance reliability indicators.
  - e. Post-maintenance reports from pilots/maintenance personnel.
6. Review and Monitoring:
- a. Maintenance and QA departments regularly revise and monitor measurable specifications to ensure alignment with company requirements and applicable standards.

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## 7.2 ESSENTIAL/SUBSTANTIAL MAINTENANCE

GACAR § 121.675 121.681 121.1545 GACAR § 121.app g ii C (11), G

### 7.2.1 General

This Section outlines the procedures for Riyadh Air to arrange essential/substantial maintenance with repair stations or other 121 operators (operating the same equipment) for repair, inspection, or overhaul of engines, structures, airframes, and/or appliances.

Details a comprehensive system and policies to ensure effective oversight and control of essential/substantial maintenance services performed by external maintenance organizations. This section outlines Riyadh Air's approach to fulfilling these responsibilities.

Ensures the quality and safety of maintenance services, Riyadh Air has established clear definitions, controls, surveillance measures, and procedures for essential/substantial maintenance contractors.

Riyadh Air takes responsibility for ensuring that organizations listed in this GMM possess an adequate organizational structure, a designated Accountable Executive, and employ competent, appropriately trained, and qualified personnel. Furthermore, these organizations must have appropriate and adequate facilities and equipment at their disposal to perform essential/substantial maintenance tasks in accordance with CAMP requirements. This commitment to quality control guarantees the highest standards of safety and maintenance for all Riyadh Air aircraft.

### 7.2.2 Definitions

1. Essential/Substantial Maintenance refers to the on-wing accomplishment of any Required Inspection Item (RII) following maintenance or alterations, where improper execution or the use of incorrect parts or materials could jeopardize the continued safe flight and landing of the airplane. It specifically involves the completion of air carrier designated inspection items on-wing and does not extend to off-wing maintenance activities.
2. Heavy Maintenance: This involves the most extensive inspections and repairs of the aircraft airframe, typically performed at specified intervals based on manufacturer guidelines, regulatory requirements, and the airline's own operational needs. It's usually scheduled after a certain number of flight hours and involves the C and D levels of inspection.
3. Line Maintenance: This covers lighter, more regular checks and tasks to ensure the aircraft's airworthiness before each flight. It also includes troubleshooting, defect rectification, and component replacement. Line maintenance technicians perform these checks on an ad-hoc basis or at scheduled intervals and can be further categorized into primary activities: transit/pre-flight checks, daily/weekly checks, and A checks.



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4. Aircraft Engine Work: This involves the off-aircraft maintenance and repair of aircraft engines, usually performed in specialized engine shops.
5. Component Work: This covers the off-aircraft maintenance and repair of individual aircraft components, such as landing gear, avionics, and flight controls.
6. Specialized Services: This includes various specialized services needed for aircraft maintenance, such as X-ray inspection for cracks, plating for corrosion protection, Non-destructive testing, painting, shot peening for surface hardening, plasma spraying for coating application.

#### 7.2.3 Listing of Contractors

For crucial or extensive maintenance work on any Riyadh Air aircraft, the GMM strictly mandates partnering solely with authorized contractors featured on the official Approved Maintenance Provider List.

#### 7.2.4 Procedures for Managing Essential/Substantial Maintenance Providers

To ensure the highest quality and safety standards, Riyadh Air has established specific guidelines for engaging essential/substantial maintenance providers:

1. Training and Technical Data: Before approval, providers receive thorough training in Riyadh Air procedures and are equipped with appropriate technical data and forms by Technical Training.
2. Conditions for Approval: Riyadh Air, through the Head of Technical Contracts, may authorize maintenance providers who meet the following criteria:
  - a. The provider must have a distinct separation between inspection and maintenance functions, ensuring independent oversight.
  - b. The provider must maintain a robust QA program that includes:
    - i. Internal audits/evaluations
    - ii. Regular audit schedules
    - iii. Documentation of findings and corrective actions
    - iv. Assurance of effective corrective/preventive measures
  - v. Ensure the maintenance organization's adherence to all applicable regulations and its own Maintenance Procedures Manual (or equivalent) Maintenance of applicable procedures.
  - vi. Ensure the maintenance organization's QA program rigorously verifies that all referenced procedures remain applicable and effective.



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- vii. Addressing of Riyadh Air's specific requirements
3. QA Program Management: The QA program must be under the sole control of the Quality Manager or designated responsible person.
  4. To ensure clarity and consistency in maintenance practices, the maintenance organization's procedures manual must meticulously address the following key elements:
    - a. Organizational Overview:
      - i. A concise description of the organization's scope of work authorized under its approval terms.
      - ii. A detailed description of the organization's facilities.
    - b. Systems and Personnel:
      - i. A comprehensive description of the organization's procedures and quality or inspection systems.
      - ii. A clear outline of the names and duties of responsible personnel, including those specifically tasked with ensuring maintenance adherence to the MPM.
    - c. Competence and Records:
      - i. A detailed description of the procedures used to establish and maintain the competence of maintenance personnel.
      - ii. A thorough explanation of the methods used for completing and retaining maintenance records, including procedures for retaining backup records.
    - d. Maintenance Release:
      - i. A comprehensive description of the procedure for preparing the maintenance release and the specific circumstances under which it's signed.
      - ii. A detailed outline of the authorization process for personnel permitted to sign the maintenance release, along with the scope of their authorization.
    - e. Additional Procedures:
      - i. A clear description of any additional procedures in place for complying with the organization's maintenance procedures and specific requirements.
      - ii. A description of the procedures for complying with service information reporting requirements.
    - f. Airworthiness Data:
      - i. A detailed description of the procedure for receiving, amending, and distributing all necessary airworthiness data within the maintenance organization, as received from the type certificate holder or type design organization.



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g. Manual Maintenance:

- i. A description of the process for amending the maintenance organization's procedures manual to ensure its information remains up to date.
  - ii. A description of the process for promptly distributing copies of all amendments to the manual to all relevant organizations or individuals.
5. To equip the contracted maintenance provider with the necessary knowledge and resources, Riyadh Air's Technical Publications department will provide them with:
- a. A copy of the General Maintenance Manual (GMM)
  - b. Relevant and current technical and administrative material from operating manuals:
  - c. Revision service for all provided materials:
6. To safeguard ongoing compliance with the Aircraft Maintenance Program (AMP) and General Maintenance Manual (GMM), the Quality Manager or their designated delegate must execute periodic reviews of the Quality Assurance (QA) program.
7. To guarantee maintenance for entrusted tasks, contractors must maintain suitable and sufficient facilities and equipment at their disposal. This ensures they possess the necessary infrastructure and tools to perform authorized essential/substantial maintenance on Riyadh Air aircraft at the required level of quality and safety.
8. When dealing with non-RII discrepancies, the "go-no-go" decisions made by an inspector from a contracted agency hold final authority. Only supervisory personnel from the agency's Inspection or QI Department, or the agency's Director of QA (or their designated representative), can override these decisions. Riyadh Air representatives are to contact the agency's Director of QA for guidance if confronted with this situation.
9. RII countermanded decisions can only be made by the agency's Manager of QI.
10. To ensure the competence and accountability of individuals performing inspections, contracted maintenance providers, must adhere to stringent qualification and authorization procedures:
11. Contracted maintenance personnel working on Riyadh Air's fleet must be qualified and specifically authorized by their Quality Department.
12. The Quality Department must maintain a detailed list of authorized personnel, identifying them by name, certificate number, title, and the specific inspections they are permitted to perform.
13. All authorized individuals must receive clear written documentation outlining the extent of their responsibilities, authorities, and any inspection limitations.
14. To ensure comprehensive documentation of major repairs or alterations, Riyadh Air mandates that contract agencies complete and submit either a GACA Form 8320-1 or an equivalent regulatory form, providing a detailed record of the work performed.



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15. To ensure clarity and control over maintenance work, Riyadh Air adheres to the following procedures for C-Check level or higher inspections at contract maintenance facilities:
  - a. Formal Agreement: Prior to work commencement, a formal maintenance letter of agreement, Statement of Work (SOW), or equivalent contract must be issued to the provider, outlining the specific inspection scope.
  - b. Task Numbering: All SOW tasks are assigned unique numbers for tracking and reference. Amendments to tasks receive a letter designation appended to the original, i.e., if the original task number was 1001, the amended task number will be 1001A, 1001B, etc.
  - c. Non-Routine Approval: Any non-routine maintenance items require explicit authorization from Riyadh Air or its on-site maintenance representative.
  - d. Work Order Creation: The provider generates a detailed work order or job order, detailing the essential/substantial maintenance agreed upon by both parties.
  - e. Work Monitoring: Riyadh Air's maintenance representative closely monitors all work performed, ensuring strict adherence to the approved scope.
  - f. Record Keeping: Upon completion, the provider forwards the comprehensive work package to Riyadh Air for meticulous record keeping.
16. To ensure proper tracking and protection of parts during maintenance:
  - a. Individual Tagging: Each part removed by the maintenance provider must be immediately tagged by the person who removed it. This tag serves as a unique identifier for tracking and record-keeping purposes.
  - b. Secure Storage: Removed parts must be carefully packaged and stored in designated areas that provide adequate protection from dust, dirt, damage, and contamination. Acceptable storage options include bins, racks, or other suitable enclosures that prevent damage or debris from entering the parts.
  - c. Tag Retrieval: Upon reinstallation of a part, the attached tag is removed and included in the work package documentation. This ensures a complete record of part removal and reinstallation, maintaining traceability throughout the maintenance process.
17. To ensure adherence to Riyadh Air's stringent standards and complete documentation during essential/substantial maintenance, the on-site representative shall:
  - a. Observes all work performed by the contractor, ensuring every step aligns with approved procedures and the agreed-upon maintenance scope.
  - b. Regularly reviewing the documents such as routine and non-routine work cards, tally sheets, and other relevant records. This meticulous review verifies completeness and consistency with Riyadh Air's established maintenance procedures throughout the entire check.



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18. Even when incoming discrepancies documented in the aircraft logbook are transferred to the contractor's work order for further action, proper closure is still crucial. Riyadh Air mandates that these discrepancies be signed off in the logbook, specifying the corrective action taken, to ensure clear traceability and accountability throughout the maintenance process.
19. Upon completion of essential/substantial maintenance, Riyadh Air's on-site representative shall
  - a. Verify that the contractor completes an airworthiness release form or aircraft log entry, adhering to GACAR § 121.1545 regulations.
  - b. Verify the entire work package, including completed tasks, approvals, and documentation, ensuring accuracy and completeness before the aircraft resumes service.

### 7.2.5 Enhanced Policy Framework And Requirements

1. In addition, the following shall be the procedures to follow when contracting essential/substantial maintenance:
2. Vendor Assessment:
  - a. Facility Standards: Riyadh Air verifies that the vendor maintains a clean, well-organized hangar, shops, and documentation office.
  - b. Project Planning: The vendor must demonstrate:
    - i. Effective pre-planning methods, including input/output targets and progress tracking tools (e.g., Gantt charts).
    - ii. Systems for ensuring proper tooling and parts availability before project initiation.
  - c. Reporting: The vendor must provide Riyadh Air's Technical Representatives with daily and weekly reports covering:
    - i. Open items.
    - ii. Man-hours expended.
    - iii. Non-routine card status.
    - iv. Parts updates.
    - v. Closed item summaries.
    - vi. Maintenance reports.
  - d. Facility Audit:
    - i. Upon recommendation by the Head of Technical Contracts, QA conducts a comprehensive facility audit to confirm the vendor's capabilities and compliance with standards.



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3. To ensure comprehensive oversight and coordination during essential/substantial maintenance, Riyadh Air assigns a team of specialized personnel:
  - a. QI Technical Representative: A qualified inspector from the Quality Department's Part 121 Roster, appointed by the Chief Inspector, safeguards quality control compliance.
  - b. Planning Engineer: The Director of CAMO designates a Planning Engineer to oversee project planning and execution from commencement to completion.
  - c. RII/RTS Authorized A&P Engineer: An A&P Licensed Aircraft Maintenance Engineer, authorized for Release to Service (RTS) and Return to Service (RTS), is assigned by the Director Maintenance to provide technical expertise.
  - d. Purchasing Representative: The Director of Supply Chain appoints a representative to manage parts orders and logistics, ensuring seamless movement of parts between the MRO, suppliers, and Riyadh Air.
4. Pre-input meeting:
  - a. Meeting Purpose:
    - i. An Aircraft Pre-Input Meeting will be held to address any potential concerns regarding the upcoming essential/substantial maintenance. The meeting will cover key aspects like:
      - 1) Maintenance Schedule: Review the planned workflow and timeline using tools like Gantt charts and flow charts.
      - 2) Completion Target: Confirm the expected inspection completion date (Red Line Date).
      - 3) Staffing: Ensure the contracted agency has sufficient and qualified personnel to handle the workload.
      - 4) Material & Parts: Discuss and verify the availability and delivery of necessary materials and parts.
      - 5) Tooling Needs: Identify and secure any required specialized tools for the maintenance tasks.
      - 6) Documentation: Provide the contracted agency with the relevant technical documents, including the General Maintenance Manual (GMM) and any additional publications.
      - 7) Engineering Support: Establish procedures for obtaining technical assistance from both Riyadh Air and the contracted agency's engineering teams.
  - b. Technical Publications:



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- i. Technical Publications will provide the contracted agency with the necessary manuals and documents, including the General Maintenance Manual (GMM), and any other relevant technical publications required for the specific maintenance tasks.

#### 5. Pre-Aircraft Arrival

- a. Prior to the maintenance check, Technical Representatives delve into the aircraft's work scope to strategize. This involves outlining the surveillance schedule and assigning the necessary manpower for optimal oversight. They also pinpoint potential "pacing items" – tasks that could slow down progress – and prioritize special inspections demanding extra attention during the visit.
- b. To meticulously assess the work scope, Technical Representatives and the Production Planner collaborate to review the following essential documents:
  - i. Heavy Maintenance Work Release Form: This document outlines all routine maintenance tasks to be performed.
  - ii. Work Release: This document details all Airworthiness Directives (ADs), Engineering Orders (EOs), Maintenance Program Items, Alerts, and Chronic Items that are incorporated into the Heavy Check's work scope.
  - iii. Master Record: This document serves as a comprehensive tally, tracking all tasks included in the heavy maintenance visit.
  - iv. Work Card Revision: This document highlights any modifications or revisions made to forms or procedures.
  - v. Aircraft Work Package Tally Form: This document provides a detailed breakdown of the specific maintenance tasks assigned to the aircraft.
- c. The Aircraft Master Record serves as the central hub for managing and tracking all maintenance activities during a heavy maintenance visit. It's a pivotal document that carefully outlines the scope of work to be performed.
- d. To proactively safeguard part integrity and readiness, spot checks are randomly conducted on parts arriving as part of the pre-draw inventory package. These precautionary measures include:
  - i. Thorough Documentation Review: Meticulous examination of parts documentation, including serviceable tags.
  - ii. Comprehensive Visual Inspections: Operators carefully scrutinize parts for any visual signs of damage that may have occurred during shipping.

#### 6. Aircraft arrival at the contracted agency's facility:

- i. Contracted Agency Responsibilities:



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- 1) Flight Log Review: Meticulously examine the aircraft's flight log and print fault messages for analysis.
  - 2) MEL/CDL Transfer: Guarantee that all items on the Minimum Equipment List/Configuration Deviation List (MEL/CDL), non-MEL/NEF exterior items, and NEF interior items have been accurately transferred to non-routine forms for proper tracking and resolution.
  - 3) Initial Walkaround: Assign an inspector to conduct a comprehensive walkaround check, visually inspecting the aircraft for any evident damage or defects.
- ii. Riyadh Air Technical Representative Responsibilities:
- 1) Incoming Walkaround: Perform an independent walkaround check, visually assessing the aircraft's exterior condition from ground level.
  - 2) Discrepancy Documentation: Meticulously document any technical discrepancies discovered during the walkaround and submit them to the contracted agency's Customer Support team for inclusion in the work package, ensuring a comprehensive maintenance scope.
7. Riyadh Air' Representatives Daily Activity
- a. Representatives must be familiar with the contracted agency's certification limitations.
  - b. Planning Engineers liaise with various departments within the agency to ensure task adherence to the maintenance program.
  - c. Representatives ensure all maintenance and paperwork comply with Riyadh Air's policies and procedures.
  - d. Representatives hold daily meetings with the vendor to discuss any material, engineering, maintenance, or quality issues related to the aircraft, and to verify the aircraft schedule.
  - e. Representatives assess non-routine discrepancies, estimated man-hour and, if satisfactory, accept the discrepancy or request clarification before work begins.
  - f. Any potential budget overruns due to non-routine discrepancies or routine item deviations require prior approval from the Technical Representatives.
  - g. Representatives ensure the agency maintains copies of all aircraft records, forwarding them to Riyadh Air Technical Records in the agreed format.
  - h. Representatives familiarize themselves with ongoing routine and non-routine tasks, providing oversight throughout the process.
  - i. Quality and Maintenance representatives review completed work items, correcting any documentation discrepancies and accepting compliant documents.
  - j. Representatives evaluate all assigned ADs, ensuring proper completion on the aircraft.



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- k. Representatives, with Quality Department concurrence, can defer non-routine tasks.
- 8. Operator Surveillance
  - a. Technical Representatives (Quality and Maintenance) conduct ongoing surveillance to identify and address any discrepancies that arise, ensuring adherence to Riyadh Air's standards and the contracted agency's procedures.
  - b. Types of Discrepancies:
    - i. Documentation Discrepancies:
      - 1) Thoroughly review aircraft records and maintenance documentation for compliance.
      - 2) Document any discrepancies following General Maintenance Manual (GMM) guidelines and forward them to the responsible department for corrective action.
      - 3) Track findings until resolved and ensure the contracted agency retains completed forms according to their policy.
    - ii. Aircraft Technical Discrepancies:
      - 1) Technical Representatives document identified technical issues and submits written discrepancies to the contracted agency's Quality Department via Customer Support.
      - 2) Visually/physically verify the completion of corrective actions.
      - 3) Inform the Director Maintenance and Director of CAMO about any technical discrepancies that could potentially impact the aircraft's return to service.
- 9. Final Inspection
  - a. Zonal Inspection Acceptance:
    - i. The contracted agency prepares a task card specifically for aircraft zonal inspection acceptance.
    - ii. A Technical Representative (Quality or Maintenance) meticulously performs the inspection, initialing each zonal area deemed satisfactory.
    - iii. Once a zonal area has been accepted, the contracted agency's maintenance personnel are prohibited from conducting any further work or opening access panels within that zone, ensuring its integrity.
- 10. Post Check
  - a. Documentation Review:
    - i. Technical Representatives thoroughly review the following documents to confirm completeness and accuracy:



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- 1) Forms Master Record
  - 2) Work Release
  - 3) Work Card Revision (or equivalent)
- b. Final Walkaround Check:
- i. A Technical Representative (Quality or Maintenance) conducts a comprehensive final walkaround check of the aircraft before its departure from the facility.
  - ii. The primary purpose of this check is to ensure the removal of all protective equipment, pins, covers, and any other temporary items that might hinder safe operation.

#### 7.2.6 Responsibilities

1. Technical Representatives:
  - a. Oversight and Compliance: Ensure the contracted agency for outsourced heavy maintenance fulfills all contractual requirements and Riyadh Air's operational standards.
  - b. Quality Inspection: Monitor and verify the proper completion of maintenance services through diligent work surveillance and meticulous tallying of the work package list.
  - c. Documentation: Review and approve all relevant maintenance documentation for completeness and accuracy before the aircraft is released for service.
  - d. Communication: Maintain clear and frequent communication with the contracted agency, addressing any discrepancies or concerns promptly.
  - e. Reporting: Document and report observations, discrepancies, and progress to relevant Riyadh Air personnel (e.g., Director of CAMO, Director Maintenance).
2. Contracted Agency:
  - a. Work Performance: Conduct all assigned maintenance tasks on Riyadh Air aircraft to the highest standards of quality and safety, adhering strictly to approved procedures and manuals.
  - b. Airworthiness Responsibility: While Riyadh Air retains ultimate responsibility for aircraft airworthiness, the contracted agency is accountable for the airworthiness of the specific components and systems it works on during the maintenance visit.
  - c. Documentation: Complete and maintain all required maintenance documentation accurately and in a timely manner.
  - d. Communication: Collaborate effectively with Riyadh Air technical representatives, addressing their questions and concerns promptly.



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- e. Compliance: Adhere to all contractual terms and conditions, Riyadh Air's maintenance procedures, and relevant aviation regulations.

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## 7.3 LINE STATION MAINTENANCE HANDLING

GACAR § 121.app g ii C (10), G

### 7.3.1 Introduction

1. Stations within or outside Saudi Arabia must have regulatory approval to perform line maintenance on Riyadh Air aircraft. If a station lacks qualified personnel, a flight mechanic or station engineer shall be assigned as a crew member to execute maintenance releases.
2. If an aircraft needs maintenance away from its base due to unforeseen events or technical issues:
  - a. AOG (Aircraft on Ground) support is preferred if available.
  - b. If AOG support isn't available, Riyadh Air may use a provider with trained, type-rated, and authorized staff, but must apply to GACA for one-time authorization with technical justification.
3. All personnel performing maintenance on Riyadh Air aircraft are regularly audited by QA (Quality Assurance).
4. Maintenance capabilities at each station are determined by:
  - a. Availability of qualified and trained personnel
  - b. Adequacy of facilities
  - c. Activity level at the station
  - d. Riyadh Air's specific requirements

### 7.3.2 Policies

1. Line Maintenance Providers Selection:
  - a. The VP Engineering and Maintenance (DOM), through the recommendation of the Head of Technical Contracts, is responsible for selecting line maintenance providers for Riyadh Air aircraft, both within and outside Saudi Arabia.
  - b. Selected providers must be recommended to Quality Assurance (QA).
2. Maintenance Standards:
  - a. Maintenance must adhere to maintenance manuals, company directives, policies, procedures, and methods.
3. Reporting:



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- a. Incidents or accidents involving Riyadh Air aircraft must be immediately reported to the Maintenance Control Center (MCC) by phone, fax, telefax, or email.
  - b. For technical delays exceeding 15 minutes, MCC must prepare and submit a technical delay report to the Director of Line Maintenance.
4. Addressing Discrepancies at Stations without Authorized Personnel:
- a. If an aircraft arrives at a station without authorized personnel to address a noted discrepancy:
    - i. The pilot-in-command consults with MCC or the Operations Control Center (OCC).
    - ii. A determination is made about whether the item is deferrable (meets MEL or CDL requirements) or NO DISPATCH/NO GO.
    - iii. For deferrable items, a one-time authorization will be issued by the approved maintenance organization Quality Department or QC/QI for the necessary corrective action and RTS.
    - iv. For NO DISPATCH/NO GO items, Riyadh Air sends a maintenance recovery crew and necessary parts.
    - v. Flight crewmembers can perform limited procedures (turning off systems, resetting circuit breakers) but must record actions in the ATL for maintenance personnel. Flight crew shall not perform any maintenance action that requires the use of tools.
5. Handling Ramp Inspection Findings:
- a. In cases wherein the CAA performed a ramp inspection/surveillance
    - i. Station Managers or PICs receive ramp inspection findings from the Civil Aviation Authority (CAA) and submit them to the Chief Pilot.
    - ii. Findings are submitted to the Chief Pilot.
    - iii. Chief Pilot forwards findings to both the Chief Inspector and Maintenance Control Center (MCC).
    - iv. Chief Inspector forwards findings to Quality Assurance (QA) for further handling.
    - v. QA: Verifies the findings in the database of the involved regulatory authority and the station where the inspection was conducted.
    - vi. If a discrepancy requires rectification, authorized personnel perform the necessary work.
    - vii. If a Daily Check, as defined in the applicable aircraft AMP, is not required:
      - 1) The maintenance actions recorded in the Technical Log constitute certification for the work done and allow for aircraft dispatch.



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viii. RII, Critical Tasks require new RTS after rectification.

b. *Note: Any RII, Critical Task will require a new Release to Service after defect rectification.*

#### 6. Scheduled Maintenance Requirements:

- a. MCC monitors scheduled maintenance requirements per the Aircraft Maintenance Program (AMP) for each aircraft type.
- b. If maintenance is due at an outstation, MCC advises the line station handling company of the requirements or initiates alternative actions to ensure timely compliance.

### 7.3.3 Responsibilities

#### 1. Riyadh Air:

- a. Arranges and manages technical line station activities (manpower, documentation, materials/parts).
- b. Provides controlled copies of applicable technical documents to line station handling companies, including:
  - i. Through MCC
    - 1) Pre-Flight/Daily Check Maintenance Checklist
  - ii. Through Technical Publications
    - 1) Aircraft Wiring Manual (AWM)
    - 2) Aircraft Schematic Manual (ASM)
    - 3) Trouble Shooting Manual (TSM)
    - 4) Aircraft Maintenance Manual (AMM)
    - 5) Illustrated Parts Catalog (IPC)
    - 6) Structural Repair Manual (SRM)
    - 7) Engine Shop Manual (ESM)

#### 2. Outstation Maintenance Provider/Line Station Handling Company:

- a. Evaluates aircraft discrepancies noted by CAA during ramp inspections and decides on corrective actions based on technical data (including MEL).
- b. Forwards technical issues to VP Engineering and Maintenance (DOM) or Chief Inspector, and operational issues to OCC.
- c. Manages technical manuals (updates, disposal, acknowledgements).
- d. Ensures compliance with requirements in this document.



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- e. Reports incidents/accidents involving Riyadh Air aircraft.
3. Station Managers/Pilot-In-Command:
  - a. Ensures immediate transmission of CAA discrepancy reports during ramp inspection/surveillance to Chief Pilot, Chief Inspector, and MCC (The Chief Inspector will forward the findings to QA for further handling.)
  - b. Reports incidents/accidents involving Riyadh Air aircraft at their station.
4. Head of Technical Contracts, Director Maintenance, and Maintenance Managers:
  - a. Jointly evaluate technical handling requirements before revising contracts or adding line stations.
  - b. Coordinate with maintenance providers for aircraft status.
  - c. Maintain copies of current line maintenance agreements and a list of providers.
  - d. Coordinate with MCC for
    - i. rectification of CAA-noted discrepancies.
    - ii. MCC to provide ATL copies after rectification to Quality (QA and QI).
  - e. Coordinate with Technical Publications for required technical publications, MEL, and GMM.
5. QI (Quality Inspection):
  - a. Issues one-time authorizations for RII and RTS upon request by MCC or Outstation Line Maintenance Provider to qualified personnel performing maintenance on Riyadh Air aircraft.
6. QA (Quality Assurance):
  - a. Includes providers in Vendor's List upon satisfactory audit.
  - b. Advises CAA of corrective actions for discrepancies noted during ramp inspections.
  - c. Schedules regular audits.
  - d. Maintains copies of contracted line maintenance provider approval certificates.
  - e. Monitors validity of approvals.
  - f. Transcribes and issues ramp inspection reports into QA audit reports through IQSMS.



## 7.4 MAINTENANCE PROVIDER LIST

GACAR §§ 121.681, 121.687 121.app g ii a

### 7.4.1 Purpose

This document outlines the process for selecting agencies qualified to perform maintenance, preventive maintenance, or alterations on Riyadh Air's aircraft. These agencies must be certified by GACA, and meet Riyadh Air's own quality standards through evaluations, audits, or prior acceptance. The goal is to ensure the safety and airworthiness of Riyadh Air's fleet through qualified and certified maintenance providers.

### 7.4.2 Policy

The Head of Technical Contracts and QA keeps track of all individuals or companies that Riyadh Air has contracts with for various services like inspections, maintenance, preventive maintenance, and modifications. This list is included in the General Maintenance Manual (GMM). Any changes to the list, like adding, removing, or updating entries, are handled according to the procedures outlined in the GMM.

Even though Riyadh Air lists specific maintenance providers, this doesn't stop them from using other qualified entities. They can still work with any repair station, mechanic, or air carrier certified by GACA, FAA, or EASA, as long as they have the necessary ratings for the job.

Services needed for unplanned and unexpected maintenance situations are treated as an extension of the existing list of approved maintenance providers. However, these services are subject to additional control procedures to ensure proper oversight and management.

### 7.4.3 Procedure

1. Riyadh Air shall use the following guidelines in selecting its contracted agencies:
  - a. Repair Station Certificate/s and OpSpecs from GACA: Agencies must possess up-to-date certifications issued by the General Authority of Civil Aviation (GACA), specifically Repair Station Certificates and Operations Specifications (OpSpecs).
  - b. Capability List aligned with CAA approval: Agencies must have a current Capability List that demonstrates their capabilities align with the applicable Civil Aviation Authority (CAA) approval.
  - c. Approvals for Aircraft and Parts Vendors/Suppliers:
    - i. PAH (Type Certificate, Production Certificate, Parts Manufacturer Approval, etc.): Agencies providing aircraft or parts/components must hold the appropriate PAH approvals, such as Type Certificates (TC), Production Certificates (PC), Parts



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Manufacturer Approvals (PMA), Technical Standard Order Authorizations (TSOA), Direct Ship Authority, and Field Approvals, as applicable.

#### 7.4.4 Responsibility

1. Maintaining a List of Approved Agencies:
  - a. The Head of Technical Contracts and QA are jointly responsible for keeping an updated list of approved maintenance, repair, and alteration agencies certified by GACA, FAA, EASA, or other relevant regulatory authorities.
  - b. The list includes information like agency location, approvals, capabilities, certificate duration, and other pertinent details.
  - c. QA is responsible for periodic reviews and revisions as needed.
2. Ensuring Agency Certification:
  - a. QA must verify that all agencies used are certified before requesting their services.
  - b. Temporary use of non-listed or non-certified agencies is allowed in exceptional circumstances (e.g., emergencies or AOG situations), but requires close QA monitoring.
3. Compliance with Standards and Manuals:
  - a. All maintenance, preventive maintenance, or alterations performed by contracted agencies must adhere to manufacturer's manuals, service documents, and Riyadh Air's own manuals.
4. Agency Audits:
  - a. QA Auditors are responsible for conducting on-site or desktop audits of listed agencies to ensure their adequacy and compliance with Riyadh Air and regulatory requirements.
  - b. Audits are conducted periodically, with a maximum interval of 24 months for most agencies. Agencies will automatically be dropped from the Approved/Accepted Agency List if an audit was not accomplished within a 24-month period.
  - c. Essential/Substantial Maintenance Providers require on-site audits.
  - d. Additional audits may be triggered by factors such as performance issues, facility or management changes, capability changes, inspection rejections, or unscheduled component removals.
5. When a new agency is being considered for contracting, the Head of Technical Contracts must inform QA of the proposal and request an evaluation.



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## 7.4.5 Essential/Substantial Maintenance Providers List

Below is the format for list of Riyadh Air essential/substantial maintenance providers. The updated list is maintained by QA and is incorporated to this GMM section during routine revisions.

AMO/OpSpecs Ref	NAME	ADDRESS/ LOCATION	WORK DESCRIPTION
TO BE INSERTED			

Table 20 Format for essential/substantial maintenance providers list

## 7.4.6 Roster of Inspectors qualified for Required Inspections Item

1. Roster Content: A detailed list of contracted agency personnel is maintained, including:
  - a. Full names
  - b. Certificate numbers
  - c. Stamp numbers, signatures, or initials used for authorization.
  - d. Occupational titles
  - e. Specific RII inspections they're authorized to perform.
2. Distribution:
  - a. The maintenance provider must furnish an identical copy of this roster to the Chief Inspector. This ensures the Chief Inspector has accurate and up-to-date information about authorized personnel and their inspection capabilities.



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8 PERSONNEL TRAINING  
8.1 PERSONNEL TRAINING

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## 8 PERSONNEL TRAINING

GACAR §§ 121.695 121.1565 ,121. app g II (h), (R)

### 8.1 PERSONNEL TRAINING

REFER STANDALONE TECHNICAL TRAINING MANUAL(TTM)

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## 9 CONTINUING ANALYSIS AND SURVEILLANCE SYSTEM (CASS)

GACAR §§ 121.691, 121. app g II N

### 9.1 QUALITY POLICIES

#### 9.1.1 Quality Assurance Audit Program

##### 9.1.1.1 Overview

Riyadh Air prioritizes safety and compliance through its comprehensive Quality Assurance Audit Program. This program encompasses both internal audits, ensuring adherence to Riyadh Air's own standards, and external audits, verifying the compliance of contracted maintenance providers with regulatory requirements. Riyadh Air actively promotes a culture of proactive self-assessment by requiring internal self-audits and encouraging external self-audits from its maintenance partners. This multi-layered approach strengthens safety, builds trust, and ensures continuous improvement across the entire aviation ecosystem.

REFER STANDALONE CASS MANUAL FOR DETAILED PROCEDURE.



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10 FORMS & CHECKLISTS  
10.1 FORMS LIST

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## 10 FORMS & CHECKLISTS

### 10.1 FORMS LIST

Forms #	Form Title
RXI/OPS-MNT-MT100	HIL NOTIFICATION
RXI/OPS-MNT-MT101	VENDOR SURVEY CHECK LIST
RXI/OPS-MNT-MT102	MIS MONTHLY SUMMARY REPORT
RXI/OPS-MNT-MT103	NEF EXTENSION
RXI/OPS-MNT-MT104	NOTICE TO CREW
RXI/OPS-MNT-MT105	PARTS TRANSFER JUSTIFICATION FORM
RXI/OPS-MNT-MT106	PREMATURE ENGINE REMOVAL
RXI/OPS-MNT-MT107	MAINTENANCE FLIGHT REQUEST FORM
RXI/OPS-MNT-MT108	MAINTENANCE WORKLOAD
RXI/OPS-MNT-MT109	DOCUMENT ASSESSMENT REPORT (DAR)
RXI/OPS-MNT-MT110	HOLD ITEM LIST -MEL-CDL
RXI/OPS-MNT-MT111	HOLD ITEM LIST -NEF
RXI/OPS-MNT-MT112	HOLD ITEMS LIST - NON-MEL -NEF
RXI/OPS-MNT-MT113	INCIDENT REPORT
RXI/OPS-MNT-MT114	PARTS ROBBERY TAG
RXI/OPS-MNT-MT115	SHIFT TURNOVER LOG
RXI/OPS-MNT-MT116	DAMAGE MAPPING RECORD
RXI/OPS-MNT-MT117	MEL REQUEST FORM
RXI/OPS-MNT-MT118	LOST DAMAGED STAMP AUTHORIZATION CARD REPORT
RXI/OPS-MNT-MT119	ONE TIME AUTHORIZATION CONTROL LOG
RXI/OPS-MNT-MT120	READ & SIGN
RXI/OPS-MNT-MT121	SERVICE DIFFICULTY REPORT
RXI/OPS-MNT-MT122	SERVICE DIFFICULTY REPORT TRACKING LOG
RXI/OPS-MNT-MT123	MATERIAL RECEIVING CHECKLIST



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RXI/OPS-MNT-MT124	MEDICAL REPORT FORM
RXI/OPS-MNT-MT125	STATION MANPOWER SCHEDULE
RXI/OPS-MNT-MT126	RXI TECH LOG
RXI/OPS-MNT-MT127	RXI CABIN LOG
RXI/OPS-MNT-MT128	SERVICEABLE TAG
RXI/OPS-MNT-MT129	QUARANTINE TAG
RXI/OPS-MNT-MT130	SCRAP TAG
RXI/OPS-MNT-MT131	DELEGATION FORM
RXI/OPS-MNT-MT132	MECHANICAL INTERRUPTION SUMMARY TRACKING LOG
RXI/OPS-MNT-MT133	MAINTENANCE WORKLOAD DEFERRAL FORM
RXI/OPS-MNT-MT134	BORROWING REQUEST FORM
RXI/OPS-MNT-MT135	MAINTENANCE ACTION REQUEST (MAR)

Table 21 List of forms



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## 11 APPENDIX

### 11.1 AIRCRAFT TECHNICAL LOGBOOK

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**Date:** 18-FEB-2024

## 11 APPENDIX

### 11.1 AIRCRAFT TECHNICAL LOGBOOK

ADDRESS		AIRCRAFT TECHNICAL LOG																		RIYADH AIR													
LOG NUMBER																				RIYADH AIR													
DATE (UTC)		A/C TYPE		A/C REGN		FLY/T NO		FROM		TO		Diversion to		TYPE OF FLIGHT																			
D	B	M	M	Y	Y	HZ-		RX-								REVENUE		TEST		FERRY		POSITIONING		TRAINING									
STD		STA		BLK OFF	(UTC)	TAKE OFF		TOUCH DOWN		BLK ON		(UTC)		FLIGHT HOURS		BLOCK HOURS		FLIGHT CYCS		DEP DELAY		DELAY CODE											
H	H	M	M	H	H	M	M	H	M	M	H	M	M	H	H	M	M	H	H	C	C	H	H	M	M								
FLIGHT CREW						ID		ROLE		Autoland Planned?		Y		N		Prev total flight hours																	
								PIC		Autoland Successful?		Y		N		New total flight hours																	
								SIC		No of GO arounds						Prev total flight cycles																	
										No of Touch and GOs						New total flight cycles																	
								De-icing Records		FLUID TYPE		MIX RATIO		START TIME		STOP TIME		HOLD OVER TIME															
DEFECT BY: WRITE 'NIL' FOR NO DEFECTS						<input type="checkbox"/> PIC		<input type="checkbox"/> ENGINEER		ATA CODE		RECTIFICATION ACTION										FUEL UPLIFT											
										HOLD ITEM LIST		<input type="checkbox"/> MEL		<input type="checkbox"/> CDL		<input type="checkbox"/> NON-MEL		<input type="checkbox"/> NEF		<input type="checkbox"/> RII		ARR FUEL (Kg)											
																				NAME		FUEL BURN (Kg)											
																				FUEL UNITS		<input type="checkbox"/> LTRS		<input type="checkbox"/> USG									
																				AUTH NO &SIGN		FUEL UPLIFT- (UNITS)											
																				FUEL DENSITY													
NAME		SIGNATURE		AUTHORIZATION NO		DATE & TIME		NAME		SIGNATURE		AUTHORIZATION NO		DATE & TIME		DATE & TIME		DATE & TIME		FUEL UPLIFT (Kg)													
DEFECT BY: WRITE 'NIL' FOR NO DEFECTS						<input type="checkbox"/> PIC		<input type="checkbox"/> ENGINEER		ATA CODE		RECTIFICATION ACTION										FUEL UPLIFT											
										HOLD ITEM LIST		<input type="checkbox"/> MEL		<input type="checkbox"/> CDL		<input type="checkbox"/> NON-MEL		<input type="checkbox"/> NEF		<input type="checkbox"/> RII		ENG FUEL (Kg)											
																				NAME		ENG:1											
																				NAME		ENG:2											
																				AUTH NO &SIGN		APU											
																				HYDRAULIC OIL UPLIFT													
NAME		SIGNATURE		AUTHORIZATION NO		DATE & TIME		NAME		SIGNATURE		AUTHORIZATION NO		DATE & TIME		DATE & TIME		DATE & TIME		RED													
																						BLUE											
ETOPS		<input type="checkbox"/> ETOPS		DIVERSION TIME IN MINUTES		<input type="checkbox"/> 60 <input type="checkbox"/> 120 <input type="checkbox"/> 180		VERIFICATION FLIGHT REQUIRED? (Y/N)		Schd Insp Carried out										GREEN													
AIRWORTHINESS RELEASE		The work performed in this aircraft is done in accordance with the current GMM, AMP and GACA 121.1545, and 121.663 requirements and is approved for return to service,																		<input type="checkbox"/> GACA AOC CERT NO (RXI AOC NO)		NAME		AUTH NO & SIGNATURE		STATION		DATE & TIME (UTC)		APU DATA			
																				<input type="checkbox"/> GACA AMO CERT NO										APU HRS			
																														APU CYCS			
PN ON		SN ON		PN OFF		SN OFF		PILOT ACCEPTANCE																									
								I hereby certify that appropriate fuel quantities are onboard and the aircraft is fit for the licensed flight.																									
								Pre Flight-Check Performed <input type="checkbox"/> DATE & TIME																									

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Figure 7 Aircraft Technical Logbook (ATL)



RIYADH AIR  
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# GENERAL MAINTENANCE MANUAL

## 11 APPENDIX

### 11.1 AIRCRAFT TECHNICAL LOGBOOK

Issue: 00  
Revision: 00  
Date: 18-FEB-2024

#### 11.1.1 AIRCRAFT TECHNICAL LOGBOOK-FILLING INSTRUCTIONS

ADDRESS		AIRCRAFT TECHNICAL LOG (Filling Instructions)																		RIYADH AIR																	
LOG NUMBER		DATE (UTC)		A/C TYPE		A/C REGN		FLY T NO		FROM		TO		Diversion to		TYPE OF FLIGHT																					
D	D	M	Y	Y	1A	1B	HZ-1C	RX-2A	2B	2C	2D	2E	REVENUE	TEST	FERRY	POSITIONING	TRAINING																				
STD		STA			BLK OFF (UTC)	TAKE OFF (UTC)			TOUCH DOWN (UTC)	BLK ON (UTC)	FLIGHT HOURS		BLOCK HOURS	FLIGHT CYCS	DEP DELAY	DELAY CODE																					
H	H	3A	M	H	3B	M	M	H	3C	M	M	H	3D	M	M	H	3E	M	H	H	3F	M	H	3G	M	M	H	3H	M	M	C	3I	H	H	3J	M	3K
FLIGHT CREW								ID		ROLE		Autoland Planned?		Y	5A	N	Prev total flight hours				H	H	H	8A	H	M	M										
								PIC		Autoland Successful?		Y	5B	N	New total flight hours				H	H	H	8B	H	M	M												
								SIC		No of GO arounds		6	Prev total flight cycles				C	C	C	9A	C	C	C														
										No of Touch and GOs		7	New total flight cycles				C	C	C	9B	C	C	C														
								De-icing Records		FLUID TYPE		MIX RATIO		START TIME		STOP TIME		HOLD OVER TIME																			
										10A		10B		10C		10D		10E																			
DEFECT RV: WRITE 'NIL' FOR NO DEFECTS								11A	<input type="checkbox"/> PIC	<input type="checkbox"/> ENGINEER	ATA CODE		RECTIFICATION ACTION								FUEL UPLIFT																
								12A	HOLD ITEM LIST		<input type="checkbox"/> MEL	<input type="checkbox"/> CDL	<input type="checkbox"/> NOP	12B L	<input type="checkbox"/> NEF	<input type="checkbox"/> RII	ARR FUEL (kg)																				
								11B			12C								NAME				FUEL BURN (kg)														
								11C			12D								AUTH 13 SIGN				FUEL UNITS				FUEL UPLIFT (UNITS)		14								
DEFECT RV: WRITE 'NIL' FOR NO DEFECTS								11A	<input type="checkbox"/> PIC	<input type="checkbox"/> ENGINEER	ATA CODE		RECTIFICATION ACTION								FUEL DENSITY																
								12A	HOLD ITEM LIST		<input type="checkbox"/> MEL	<input type="checkbox"/> CDL	<input type="checkbox"/> NO	12B EL	<input type="checkbox"/> NEF	<input type="checkbox"/> RII	ARR FUEL (kg)				ENG OIL UPLIFT																
								11B			12C								NAME				ENG:1														
								11C			12D								AUTH 13 SIGN				ENG:2				15										
ETOPS								<input type="checkbox"/> ETO18A	DIVERSION TIME IN MINUTES		<input type="checkbox"/> 60	<input type="checkbox"/> 120	<input type="checkbox"/> 1818B	VERIFICATION FLIGHT REQUIRED? (Y/N)								18C	Schd Insp Carried out				APU DATA										
AIRWORTHINESS RELEASE								The work performed in this aircraft is done in accordance with the current GMM, AMP and GACA 121.1545, and 121.663 requirements and is approved for return to service,		<input type="checkbox"/> GACA AOC CERT NO (RX AOC NO)	20	NAME								AUTH NO & SIGNATURE		STATION		DATE & TIME (UTC)		APU HRS											
										<input type="checkbox"/> GACA AOC/AMO CERT NO		21A								21B		21C		21D		APU CYCS				17							
PN ON		SN ON		PN OFF		SN OFF		PILOT ACCEPTANCE																													
22A		22B		22C		22D		I hereby certify that appropriate fuel quantities are onboard and the aircraft is fit for the licensed flight.																													
								NAME																		24A											
								SIGNATURE																		24B											
								DATE & TIME																		24C											
FORM NO:								RXI/OPS-MNT-MT126																PAGE													

Figure 8 Aircraft Technical Logbook Filling Instruction Item Number Details



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11.1 AIRCRAFT TECHNICAL LOGBOOK

**Issue:** 00

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**Date:** 18-FEB-2024

ITEM	HEADER	ACTION BY	ACTION PHASE	ACTION
1A	DATE(UTC)	PIC	Before flight	Record Date of flight in DD-MM-YY format
1B	A.C TYPE			Record the Aircraft Model (e.g. B787)
1C	A/C REGN			Record the Aircraft Registration (HZ-XXX)
<b>Note:</b> If aircraft is under maintenance, the Engineer will fill-up Blocks 1A, 1B & 1C.				
2A	FLYT NO	PIC	During / After flight	Record the flight number
2B	FROM			Record the departure station, use IATA Airport code
2C	TO			Record the arrival station, use IATA Airport code
2D	DIVERSION TO		During / After flight	Record diverted station IATA Airport code in case diversion.
2E	TYPE OF FLIGHT			Select type of flight
3A	STD			Record Standard Time of departure (UTC)
3B	STA			Record Standard Time of arrival (UTC)
3C	BLK OFF		After flight	Record the time in UTC the aircraft departed from the gate.
3D	TAKE OFF			Record the time in UTC when the aircraft Took Off
3E	TOUCH DOWN			Record the time in UTC when the aircraft touched down
3F	BLK ON			Record the time in UTC the aircraft arrived at the gate
3G	FLIGHT HOURS			Record the total flying hours from TAKE OFF to TOUCH DOWN
3H	BLOCK HOURS			Record the total block hours from BLK OFF to BLK ON
3I	FLIGHT CYCLES			Record the number of landings
3J	DEP DELAY			Record the delay (BLK OFF-STD)
3K	DELAY CODE			01-ATC 02-MAINTENANCE 03-WEATHER 04-CATERING 05-COMMERCIAL 06-FUELING 07-CONSEQUENTIAL
4	FLIGHT CREW	PIC	Before flight	Record Flight Crew Name (PIC & SIC)
	ID			Record Flight Crew Employment Number (PIC & SIC)
5A	Autoland Planned?	PIC	After Landing	Circle "Y" or "N" to mark if the Autoland was attempted or not.
5B	Autoland Successful?			Circle "Y" or "N" to mark if the Autoland was successful or not. If the Autoland is not



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ITEM	HEADER	ACTION BY	ACTION PHASE	ACTION
				successful, clearly explain the root cause in Defect Description.
6	No of GO arounds			Enter the number of Go Arounds.
7	No of Touch and GOs			Enter the number of Touch-and-Go's.
8A	Prev total flight hours			Total Flight Hours transferred from previous entry.
8B	New total flight hours	PIC	After Landing	Obtained by adding the number of Flight Hours (Item:3G+Item 8A).
9A	Prev total flight cycles			Total Flight Cycles transferred from previous entry.
9B	New total flight cycles			Obtained by adding the number of Flight Cycles (Item:3I+Item 9A).
10A	FLUID TYPE			Record the de-icing fluid type used
10B	MIX RATIO			Record the de-icing mix ratio
10C	START TIME	PIC	Before flight	Record the time de-icing started
10D	STOP TIME			Record the time de-icing was ended.
10E	HOLD OVER TIME			Record the de-icing Hold Over Time
11A	DEFECT BY	PIC/ENGINEER	After flight / During Maintenance	Select The Appropriate Tick Box to Indicate that who entered the defect
11B	DEFECT	PIC/ENGINEER	After flight / During Maintenance	If Defect is recorded by PIC - Record the detailed description of the defect observed during flight Write "NIL" if no defect observed on the last completed flight. If defect is recorded by Engineer during maintenance, inspection- Record the detailed description of the defect with work order information. The recording shall be in English language and in CAPITAL letters using a ball point pen.
11C	NAME/SIGNATURE/AUTHORIZATION NO/DATE(UTC)/TIME(UTC)	PIC/ ENGINEER	After flight / During Maintenance	If Defect is recorded by PIC – PIC records all the details and records his EPN No OR ALTP No in place of Authorization no If defect is recorded by Engineer- Engineer records all the details
12A	ATA CODE			Record 4-digit ATA code (e.g. 2410 for 24-10)
12B	HOLD ITEM LIST	ENGINEER	During Maintenance	Select the applicable tick box if MEL, CDL, Non-MEL or NEF is applied.
12C	RECTIFICATION	ENGINEER	During /After Maintenance	Record the detailed description of the defect rectification including manual reference/s, revision number and issue date (e.g. AMM, TSAM, SRM).



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ITEM	HEADER	ACTION BY	ACTION PHASE	ACTION
12D	NAME/SIGNATURE/AUTHORIZATION NO/DATE(UTC)/TIME(UTC)	ENGINEER	After Maintenance	Upon completion of defect rectification, the Engineer shall record full Name, Authorization Number, Signature/Initial, Date & Time (in UTC)
13	RII, SIGNATURE, DATE & TIME (UTC)	RII INSPECTOR	After Maintenance	If the rectified defect is a Required Inspection Item (RII) the RII Inspector will sign-off this block by his Name, Stamp, Signature, Date and Time in UTC.
14	ARR FUEL (Kg)	PIC	After Landing	Entered by Flight crew. It is the Fuel quantity as per aircraft gauge upon arrival at gate. To be recorded by previous flight PIC.
	FUEL BURN (Kg)			Record the fuel consumed (kg) between departure gate and arrival gate. To be recorded by previous flight PIC.
	FUEL UNITS		Before Departure	Select appropriate tick box (LTRS OR USG)
	FUEL UPLIFT- (UNITS)			Record the uplift quantity in LTRS or USG
	FUEL DENSITY			Record the specific gravity (S.G) of the fuel
	FUEL UPLIFT (Kg)	ENGINEER		Record the uplifted fuel in KGs If fuel unit is LTRS KGS = Liters x S.G
	DEP FUEL (Kg)	ENGINEER		If fuel unit is USG -follow below 2 stage conversions Liters =USG x 3.785 KGS = Liters x S.G
	RECEIPT NO	ENGINEER		Record the total Fuel on Board at the time of Departure Record the fuel receipt no supplied by the fuel vendor
15	ENG OIL UPLIFT-ENG:1	ENGINEER	During Maintenance Before flight	Record the added quantity (Qts) to Engine No. 1 (if any)
	ENG OIL UPLIFT-ENG:2			Record the added quantity (Qts) to Engine No. 2 (if any)
	ENG OIL UPLIFT-APU			Record the added quantity (Qts) to APU (if any)
16	HYDRAULIC FLUID UPLIFT-RED	ENGINEER	During Maintenance / Before flight	Record the added quantity (Qts) to the Hydraulic Red System (if any)
	HYDRAULIC FLUID UPLIFT-BLUE			Record the added quantity (Qts) to the Hydraulic Blue System (if any)
	HYDRAULIC FLUID UPLIFT-GREEN			Record the added quantity (Qts) to the Hydraulic Green System (if any)
17	APU DATA- FLYT HOURS	ENGINEER	Daily Check During Maintenance	Record the APU Flight Hours
	APU DATA- FLYT CYCS		Record the APU Flight Cycles	



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ITEM	HEADER	ACTION BY	ACTION PHASE	ACTION
18A	ETOPS	ENGINEER	After Maintenance	Select the tick box if the aircraft will operate as ETOPS.
18B	DIVERSION TIME			Select the applicable ETOPS Diversion Time–180/120/60 minutes
18C	VERIFICATION FLIGHT			As applicable, write Y if aircraft requires Verification Flight after defect rectification. Write N if not required. Verification Flight is required only when the discrepancy in question cannot be verified on the ground. When required, the verification should be coordinated with MCC.
19	Schd. Insp Carried out	ENGINEER	After Maintenance	Record any scheduled inspection carried out (Daily/Weekly/etc..)
20	GACA AOC CERTIFICATE NO (RXI AOC NO):	ENGINEER	After Maintenance Before flight	The RXI staff who signed-off the AWR block, shall tick the box provided. This is to affirm that the aircraft was released in accordance with GACAR.
	GACA AOC/AMO CERTIFICATE NO			Applicable to contracted maintenance providers holding appropriate GACA Approval. The contracted staff who signed-off the AWR block, must select the applicable box and write the contracted maintenance Provider GACA AOC/AMO Certificate Number. This is to affirm that the aircraft was released in accordance with GACAR.
21A	AIRWORTHINESS RELEASE - NAME	ENGINEER	After Maintenance Before flight	The Engineer with AWR authorization must Indicate his full name in capital letters. Please Refer Notes 1 & 2.
21B	AIRWORTHINESS RELEASE - AUTH NO & SIGN			Record the Authorization Number and Signature
21C	AIRWORTHINESS RELEASE – STATION			Record the Station
21D	AIRWORTHINESS RELEASE – DATE & TIME (UTC)			Record Date & Time (in UTC).
22A	COMPONENT DETAIL-PN ON			Record the Part Number of the component installed
22B	COMPONENT DETAIL-SN ON	PIC who will take the	Before flight	Record the Serial Number of the component installed
22C	COMPONENT DETAIL-PN OFF			Record the Part Number of the component removed
22D	COMPONENT DETAIL-SN OFF			Record the Serial Number of the component removed
23A	PRE-FLIGHT CHECK PERFORMED BY PILOT			Select the tick box to indicate that the Pre-Flight Check was performed by the Flight Crew



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11.1 AIRCRAFT TECHNICAL LOGBOOK

**Issue:** 00  
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ITEM	HEADER	ACTION BY	ACTION PHASE	ACTION
24A	PILOT ACCEPTANCE-NAME	aircraft for the next flight		Record PIC full name
24B	PILOT ACCEPTANCE-SIGNATURE			PIC Signs this block to indicate acceptance of the aircraft.
24C	PILOT ACCEPTANCE-DATE & TIME			Record the date (dd/mm/yy) and time in UTC of acceptance

Table 22 Aircraft Technical Log Filling Instructions with Item Nos and Associated Description

## General Notes:

**Note 1:** An AWR is required for all defect rectification, component replacement, repair, scheduled/unscheduled maintenance, and MEL / CDL / Non-MEL deferrals with (M) action.

**Note 2:** Pre-Flight Check does not require an AWR Sign-off.

**Note 3:** ETOPS PDSC requires an AWR Sign-off.

On item 17 (Defect), open a maintenance entry as ETOPS PDSC Required.

On item 18 (Corrective Action), close the entry as ETOPS PDSC carried out i.a.w Checklist xxxx, AMP xxxx. Aircraft certified for ETOPS Flight. or

On item 18 (Corrective Action), close the entry as ETOPS PDSC carried out i.a.w Checklist xxxx, AMP xxxx. "Aircraft is certified for ETOPS subject to verification of (---significant system defect---) in the first 60 minutes of flight".

**Note 4:** The Corrective Action block must be filled-up only by a qualified, trained, and authorized Repairman, Mechanic/Engineer, and Inspector.

**Note 5:** Raising an MEL, CDL, Non-MEL or NEF: If unable to rectify the defect due to limited time or part not available, mark the applicable category in Hold Item List (HIL) field (15). Defer the defect in the rectification block 18 and write the applicable MEL, CDL, Non-MEL or NEF reference. Record the deferral in HIL

**Note 6:** Clearing an MEL, CDL, Non-MEL or NEF: On Defect Block 17, open a Maintenance Entry with description of defect and the corresponding Aircraft Technical Logbook sequence number where the MEL, CDL, Non-MEL or NEF deferral was documented. Fill block 14,15 and16(tick the box for the applicable HIL category). On the rectification block 18, describe the corrective action undertaken to address the defect and record the manual reference/s e.g., AMM, TSM, SRM.

**Note 7:** For any RII Task, only the RII-authorized Repairman or Mechanic/Engineer must complete the rectification block.

**Note 8:** If the defect is related to structural or engine damage, describe the details of defect in Defect block 17 along with damage locations, dimensions and the details of action taken in the rectification block 18. Write the applicable references such as AMM or SRM including the revision number, issue



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*date, OEM recommendations and thresholds/intervals. Record the structural or engine damage in  
“External Dent and Damage Mapping”*

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# **GENERAL MAINTENANCE MANUAL**

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11 APPENDIX

## 11.2 AIRCRAFT CABIN LOGBOOK

**Issue:** 00

Revision: 00

Date: 18-FEB-2024

## **11.2 AIRCRAFT CABIN LOGBOOK**

ADDRESS		IFE & AIRCRAFT CABIN LOG															
LOG NUMBER																	
DATE (UTC)			A/C TYPE		A/C REGN		FLYT NO		FROM		TO		Diversion to				
D	D	M	M	Y	Y	HZ-	RX-										
ENTERED BY		<input type="checkbox"/> CABIN CREW <input type="checkbox"/> ENGINEER		STATION				ATA 4 DIGIT CODE				<input type="checkbox"/> HIL ENTERED		<input type="checkbox"/> HIL CLEARED			
DEFECT														RECTIFICATION			
NAME:				AUTH NO:				SIGNATURE				NAME:					
PIC NAME:				SIGNATURE:				DATE & TIME(UTC)				STATION:					
PART DETAILS																	
PN ON				SN ON				PN OFF				SN OFF					
ENTERED BY		<input type="checkbox"/> CABIN CREW <input type="checkbox"/> ENGINEER		STATION				ATA 4 DIGIT CODE				<input type="checkbox"/> HIL ENTERED		<input type="checkbox"/> HIL CLEARED			
DEFECT														RECTIFICATION			
NAME:				AUTH NO:				SIGNATURE				NAME:					
PIC NAME:				SIGNATURE:				DATE & TIME(UTC)				STATION:					
PART DETAILS																	
PN ON				SN ON				PN OFF				SN OFF					

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*Figure 9 Aircraft Cabin Logbook (ACL)*



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# GENERAL MAINTENANCE MANUAL

11 APPENDIX

11.2 AIRCRAFT CABIN LOGBOOK

**Issue:** 00

**Revision:** 00

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## 11.2.1 AIRCRAFT CABIN LOGBOOK FILLING INSTRUCTIONS

ADDRESS		IFE & AIRCRAFT CABIN LOG (Filling Instructions)												Diversion to			
LOG NUMBER														RIYADH AIR طيران الرياض			
DATE (UTC)		A/C TYPE		A/C REGN		FLYT NO		FROM			TO						
D	D	1A	M	Y	Y	1B	HZ-	1C	RX-	1D	1D		1E	1F			
ENTERED BY		<input type="checkbox"/> CABIN CREW <input type="checkbox"/> ENGINEER		STATION		2B		ATA 4 DIGIT CODE		3A		HIL ENTERED	3B	HIL CLEARED	<input type="checkbox"/>		
DEFECT																RECTIFICATION	
NAME:		2D		AUTH NO:		2D		SIGNATURE		2D		NAME:		3D			
PIC NAME:		2D		SIGNATURE:		2D		DATE & TIME(UTC)		2D		STATION:		3D			
PART DETAILS																	
PN ON				SN ON				PN OFF				SN OFF					
4A				4B				4C				4D					

Figure 10 Aircraft Cabin Logbook Filling Instruction Item Number Details



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11.2 AIRCRAFT CABIN LOGBOOK

**Issue:** 00  
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ITEM	HEADER	ACTION BY	ACTION PHASE	ACTION
1A	DATE	CABIN CREW	Before flight	Record Date of flight in DD-MM-YY format
1B	A/C TYPE			Record the Aircraft Model (e.g. B787)
1C	A/C REGN			Record the Aircraft Registration (HZ-XXX)
1D	FLYT NO			Record the flight number
<b>Note:</b> If aircraft is under maintenance, the Engineer will fill-up Blocks 1A, 1B ,1C.				
2A	ENTERED BY	CABIN CREW/PIC	During flight or After flight	Select the cabin crew tick box Write the detailed description of the defect observed in English language and in CAPITAL letters using a ball point pen. The Cabin crew's Name, Signature, EPN for Authorization No and Date & Time (in UTC). The PIC will countersign with his PIC Name and Signature after defect entry by the Cabin crew.
2A	ENTERED BY	ENGINEER	Before flight / During maintenance	Select the engineer tick box Record the detailed description of the defect during maintenance, inspection or work order information in English language and in CAPITAL letters using a ball point pen.
2B	STATION	CABIN CREW/PIC/ ENGINEER	After flight / During maintenance	Record the station at which the defect is reported
3A	ATA 4 DIGIT CODE	ENGINEER	After Defect Rectification	Record the defect 4-digit ATA Code 2430 for (e.g. 24-30).
3B	HIL ENTERED / HIL CLEARED			Select applicable tick box for Hold Item List.
3C	RECTIFICATION			Record the detailed description of the defect rectification including manual reference/s, revision number and issue date (e.g. AMM, TSM, SRM).
3D	NAME, SIGNATURE AUTHORIZATION NO., STATION, DATE & TIME(UTC)			After completion of defect rectification, record the Engineer Name, Authorization Number, Signature, Date & Time (in UTC) and the Station where the work was completed.



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11.2 AIRCRAFT CABIN LOGBOOK

**Issue:** 00

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ITEM	HEADER	ACTION BY	ACTION PHASE	ACTION
4A	PART DETAIL-PN ON	ENGINEER	After Defect Rectification	Record the Part Number of the new component installed
4B	PART DETAIL-SN ON			Record the Serial Number of the new component installed
4C	PART DETAIL-PN OFF			Record the Part Number of the component removed/replaced
4D	PART DETAIL-SN OFF			Record the Serial Number of the component removed/replaced

*Table 23 Aircraft Cabin Logbook Filling Instructions Item Number with Description*

DRAFT



**Riyadh Air,**

Door No, Street Address,

Pin code.

[www.riyadhair.com](http://www.riyadhair.com)