

# **RAMCO AVIATION SOLUTION**

## **ENHANCEMENT NOTIFICATION**

**Version 5.8.8**

**Maintenance**

---

©2019 Ramco Systems Ltd. All rights reserved.

All trademarks acknowledged.

This document is published by **Ramco Systems Ltd.** without any warranty. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose without the written permission of **Ramco Systems Limited.**

Improvements and changes to this text necessitated by typographical errors, inaccuracies of current information or improvements to software programs and/or equipment, may be made by Ramco Systems Limited, at any time and without notice. Such changes will, however, be incorporated into new editions of this document. Any hard copies of this document are to be regarded as temporary reference copies only.

The documentation has been provided for the entire Aviation solution, although only a part of the entire solution may be deployed at the customer site, in accordance with the license agreement between the customer and Ramco Systems Limited. Therefore, the documentation made available to the customer may refer to features that are not present in the solution purchased / deployed at the customer site.

---

# contents

## WHAT'S NEW IN COMPONENT MAINTENANCE PROGRAM? .....4

Ability to manage Schedules of Part & Components for multiple combinations..... 4

Background .....4

Change Details.....4

## WHAT'S NEW IN MAINTENANCE CHANGE REQUEST? .....6

Ability to capture the part effectivity with PN range, MOD range, Mfr. Date range,

Repair date range in MCR ..... 6

Background .....6

Change Details.....6

Ability to capture the key attributes of the Eng. Doc (Mandatory and Reliability

Impact) in the MCR and identify the EO initiated by customer..... 8

Background .....8

Change Details.....8

## WHAT'S NEW IN COMPONENT MAINTENANCE PROGRAM?

### Ability to manage Schedules of Part & Components for multiple combinations

Reference: APSE-340

#### Background

In Ramco Aviation, currently the date or usage based on maintenance schedules are defined for each part / component. However, in some MRO organizations, schedules may vary for parts / components for various levels, such as Model #, Position Code, or Operator # or possibly more entities or a combination of multiple entities. Hence, a facility whereby the users can define schedules for an entity or a possible combination of entities must be built in the system.

#### Change Details

To enable the users to define and maintain schedules for parts / components for a specific levels or combination of levels, new activity **Manage Schedule Adjustments for Components** has been added under the **Component Maintenance Program** business component. A brief description of the new user interface is given below:

- In the **Manage Schedule Adjustments for Components** activity, the users can define schedules for parts / components at the following levels:
  - Model #
  - Position Code level
  - Operator
  - Model - Operator
  - Operator - Position Code
- The following details of the schedule adjustments can be recorded for a part:
  - Model #
  - Configuration Class
  - Position Code
  - Operator #
- The new activity provides links to **Edit Date-Based Schedules**, **Edit Value-Based Schedules** and **Define Aircraft Effectivity information** to enable the users to make schedule adjustments at different levels. The new schedules will be overwriting the existing date-based and value-based schedules for the part at the specified level on attachments.
- The users can search and retrieve specific parts to define or update schedule adjustments.
- The schedule adjustments in the parts can be carried over to the associated components as well. The schedule adjustments can be saved and any changes or additions can also be made at a later point of time.
- The adjusted part's schedule adjustments can be activated or deactivated in the new activity.

Exhibit 1: The Manage Schedule Adjustments for Components screen in Component Maintenance Program

The screenshot displays the 'Manage Schedule Adjustments for Components' interface. It includes a search section with fields for 'Part #', 'Aircraft Model', 'Operator #', 'Configuration Class', 'Status', and 'Position Code #'. A 'Search' button is located below these fields. The 'Schedule Adjustment At' dropdown is also present. Below the search section is the 'Schedule Adjustment Details' table, which has columns for '#', 'Model #', 'Configuration Class', 'Position Code #', 'Operator #', 'Status', 'Schedule Info?', 'Date Based Sch.', and 'Usage Based Sch.'. A 'Save' button is located at the bottom left, and 'Activate' and 'Inactivate' buttons are at the bottom right. Four yellow callout boxes provide instructions: 'Specify part for schedules adjustment' points to the 'Part #' field; 'Specify level for schedule adjustment' points to the 'Position Code #' field; 'Select to let components inherit schedule changes' points to the 'Inherit Changes to Attached Component' checkbox; and 'Specify details of schedules adjustment' points to the 'Schedule Adjustment Details' table.

**Manage Schedule Adjustments for Components**

Manage Part-Component Schedules Adjustment

Part #  Part Description PRG defined? Schedule Adjustment At

Search Criteria

Aircraft Model  Configuration Class  Position Code #

Operator #  Status  Search

Schedule Adjustment Details

[No records to display]

#	Model #	Configuration Class	Position Code #	Operator #	Status	Schedule Info?	Date Based Sch.	Usage Based Sch.
1								

Inherit Changes to Attached Component ☐

Save Activate Inactivate

Specify part for schedules adjustment

Specify level for schedule adjustment

Select to let components inherit schedule changes

Specify details of schedules adjustment

## WHAT'S NEW IN MAINTENANCE CHANGE REQUEST?

### Ability to capture the part effectivity with PN range, MOD range, Mfr. Date range, Repair date range in MCR

Reference: APSE-64

#### Background

Currently, the **Maintenance Change Request** (MCR) business component allows the users to setup the part effectivity for MCR documents on the basis of Part #, Part Description and Manufacturing #. However, a provision is required wherein part effectivity for MCR can be defined by means of additional attributes, such as Repair Agency, Aircraft Model #, Mod #, etc. for enhanced mapping of components to MCR.

#### Change Details

To enable the users to setup and maintain greater part effectivity for MCR, the following new developments have been incorporated in the **Maintenance Change Request** business component in **Engineering Document**:

- New link - **Edit Advanced Part Effectivity** has been added in the **Create Maintenance Change Request**, **Edit Maintenance Change Request**, **Revise Maintenance Change Request** and **View Advanced Part Effectivity** pages. On click of the **Edit Advanced Part Effectivity** link, the **Edit Advanced Part Effectivity** page appears.
- The **Edit Advanced Part Effectivity** page will enable the users to setup part effectivity for MCR based on additional attributes including:
  - Specific Part #
  - Range of Part #
  - Linked Part #
  - Specific Mod #
  - Range of Mod #
  - Aircraft Model #
  - Range of Manufacturing Dates
  - Range of Repair Order Dates
  - Repair Agency
  - Restriction Code
- Note that the **Edit Advanced Part Effectivity** page that will be accessible from the **View Advanced Part Effectivity** page will be a display-only page with no active pushbuttons.
- However, the new **Edit Advanced Part Effectivity** page and the existing **Edit Recommended Part Effectivity** page will be mutually exclusive of each other. The value set for the process parameter 'Enable Advanced Part Effectivity for MCR?' under the entity type Eng. Doc. Type and the entity All Eng. Doc in the Define Process Entities activity of Common Master will decide which of the two links is available in the **Create Maintenance Change Request**, **Edit Maintenance Change Request**, **Revise Maintenance Change Request** and **View Advanced Part Effectivity** pages. The following table illustrates the condition in which the links will appear in the foresaid pages.

Process Parameter: Enable Advanced Part Effectivity for MCR?	
1 for Yes	The <b>Edit Advanced Part Effectivity</b> link will be available in the <b>Create/Edit/Revise/View Maintenance Change Request</b> pages
0 for No	The <b>Edit Recommended Part Effectivity</b> link will be available in the <b>Create/Edit/Revise/View Maintenance Change Request</b> pages

Exhibit 1: Indicates the new link in the **Edit Maintenance Change Request** screen

**Edit Maintenance Change Request**

Date Format: dd-mm-yyyy

**MCR Identification Details**

**MCR Details**

**Source Document Details**

**Execution Details**

Est. Elapsed Time:  Hours:  Priority: AOG

**Warranty Information**

**Contact Details**

**Model Effectivity**

#	Aircraft Model #	Model Type	Model Description
1	A310		A310
2			

**Document Attachment Details**

File Name:  View File

**Link Info**

[Edit Recommended Aircraft Effectivity](#)  
[Edit Aircraft Mod # Effectivity](#)  
[Edit Configuration Changes](#)  
[Edit Resource Requirements](#)  
[Edit Reference Details](#)  
[Edit Notes](#)  
[Upload Documents](#)  
[Process Change Request](#)

[Edit Task Information](#)  
[Edit Concurrent Requirements](#)  
[Edit New Tooling Requirements](#)  
[Edit Regulatory Directive Details](#)  
[Assign Employees](#)  
[View Associated Doc. Attachments](#)

[Edit Conditional Effectivity](#)  
[Edit Schedule Information](#)  
[Edit Weight & Balance Details](#)  
[Edit Customer List](#)  
[Edit Publications Affected](#)  
[Edit Advanced Part Effectivity](#)

**Record Statistics**

Exhibit 2: Indicates the new **Edit Advanced Part Effectivity** screen in **Maintenance Change Request**

**Edit Advanced Part Effectivity**

**Document Details**

Doc. # 411-0001-25-108 Revision # 12

Subject: Test MCR Source Doc Type: SB Applicability: Component

**Advanced Part Effectivity Details**

#	Part #	Part # From	Part # To	Linked Part	Mod #	Mod # From	Mod # To	Aircraft Model #	Mfg. Date From	Mfg. Date To	Repair Date From	Repair Date To	Repair Agency
1													

**Edit Part Effectivity**

## WHAT'S NEW IN ENGINEERING DOCUMENT?

### Ability to capture the key attributes of the Eng. Doc (Mandatory and Reliability Impact) in the MCR and identify the EO initiated by customer

Reference: APSE-48

#### Background

In the Aviation industry, The OEM's and the regulatory agencies, such as FAA, EASA publish Service Bulletins (SB) and Airworthiness Directives (AD) for enhancing the safety and efficiency of flight components and their operations. In Ramco Aviation, the Maintenance Change Request (MCR) documents are created on the basis of the SB and AD and such other documents. To facilitate the implementation of MCR, the engineering documents are created which then become the sources for execution documents. However, to identify the engineering order reference for MCR, a provision to capture the key attributes of the engineering orders in the MCR is required and must be supported by the Ramco Maintenance function.

#### Change Details

To facilitate the capture of the key attributes of the engineering documents in MCR, the following changes have been incorporated in the **Maintenance Change Request** business component of **Engineering Document**:

- The **Create Maintenance Change Request**, **Edit Maintenance Change Request** and **Revise Maintenance Change Request** screens will now have two new drop-down list boxes – **Mandatory?** and **Reliability Impact?** in the **MCR Details** section
  - **Mandatory?** – This attribute will stipulate whether the execution of the MCR is mandatory on the maintenance object or not
  - **Reliability Impact?** This attribute will indicate whether the execution of the MCR on the maintenance object will affect the reliability` of the maintenance object. For instance, on execution of the MCR, the life / efficiency of the component could get better or unscheduled removals may decrease.
- Two new display-only fields - **Mandatory?** and **Reliability Impact?** have been added in the **MCR Details** section of the **View Maintenance Change Request** activity
- In the Select pages of the **Edit Maintenance Change Request**, **Revise Maintenance Change Request** and **View Maintenance Change Request** activities, the search function has been enhanced in the following way:
  - The **User Status** field has been removed and instead **Additional Search** filter has been added in the **Search Criteria** section. However, the **Additional Search** filter will have three options namely, User Status, **Mandatory?** And **Reliability Impact?**.in the **Select** pages of the **Edit Revise Maintenance Change Request** and **Revise Maintenance Change Request** activities. The **Additional Search** filter in the **Select** page of the **View Maintenance Change Request** will offer only two options - **Mandatory?** And **Reliability Impact?** for retrieving maintenance change requests.



Exhibit 1: The Create Maintenance Change Request screen in Maintenance Change Request

★ Create Maintenance Change Request

Date Format: dd/mm/yyyy

**MCR Identification Details**

MCR # / Rev. # : MXP-MLD-747-35-01 / 0 Status: Fresh

Subject: OXYGEN – CREW OXYGEN AND STOWAGE BOX – STOWAGE IMPROVEMENT

Doc. Issue Date: 27/10/2018 Receipt Date: 30/10/2018

Eff. From Date: User Status:

**Copy Details**

Copy Options: ☐ All ☐ Effectivity

**MCR Details**

Applicability: Component Effectivity Type: Direct

ATA #: 3500

MCR Class: Retrofit Part Identifier: Internal Reason Category: PART# CHANGE

Mandatory?: Yes Reliability Impact?: Yes

Reason: To inform Boeing B747-8 operators that crew oxygen mask PNR MLD20-726-1 and stowage box MXP806-7 have been introduced as one-way interchangeable part to the current crew oxygen mask PNR MLD20-626-1 and stowage box MXP806-1. This SB is to support Boeing SB 747-35-2133

Background: This Service Bulletin (SB) announces the introduction of new TSO approved crew oxygen mask PNR MLD20-726-1 and stowage box PNR: MXP806-7 on Boeing 747-8 platform.

Consequences:

Action:

**Source Document Details**

**Execution Details**

**Warranty Information**

Exhibit 2: The Select View Maintenance Change Request in the Review Maintenance Change Request screen

★ Select Maintenance Change Request

RAMCO OU-Ramco Role

**Direct Entry**

MCR # / Rev. # : Revise MCR

**Search Criteria**

MCR #: Source / Doc Type: External

Additional Search: Aircraft Model # ATA #

User Status: Mandatory: Reliability Impact:

Manufacturer Name: Source Doc Type: Applicability: Part #: Subject:

Search

**Search Results**

Found no rows to display!!!

#	MCR #	Subject	Revision #	Source Doc Type	Source
Found no rows to display!!!					

Exhibit 3: The Revise Maintenance Change Request screen in Maintenance Change Request

**Revise Maintenance Change Request**

Date Format

**MCR Identification Details**

MCR # / Rev. #      Revision #

Subject

Doc. Issue Date      Receipt Date

Eff. From Date: Maint. Object Level      User Status

**Revised MCR Identification details**

New Revision #      Status

Subject      User Status

Doc. Issue Date      Receipt Date

Reason for Revision

**MCR Details**

Applicability      MCR Class

Effectivity Type      Part Identifier

ATA #      Reason Category

**Mandatory?**      **Reliability Impact?**

User Defined 1      User Defined 2

User Defined 3      User Defined 4

Reason

Background

Consequences

Exhibit 4: The Select View Maintenance Change Request in the View Maintenance Change Request screen

**Select Maintenance Change Request**

Date Format: mm-dd-yyyy

**Direct Entry**

MCR # / Rev. #      View MCR

**Search Criteria**

MCR #      Status

Source / Doc Type      Subject

ATA #      Manufacturer Name

Issue Date - From      Applicability

Part #      Aircraft Model #

Additional Search      Search

**Search Results**

Mandatory?      Reliability Impact?

#	MCR #	Subject	Revision #	Source Doc Type	Source	Mandatory?	Reliability Impact?	MCR Class	ATA #
1	11/04/2015/1133/01	MCR 1133	1	M-EI	Internal				00-00
2	123	12345678901234567890123456789012345678901	123	CG70	External				00-00
3	123	12345678901234567890123456789012345678901	1234	CG70	External				00-00
4	123	12345678901234567890123456789012345678901	12345	CG70	External				00-00
5	123	12345678901234567890123456789012345678901	123456	CG70	External				00-00
6	12389	ghgh	43w	FJ72	Internal				00-00
7	1230	new	1	AD	External				00-00
8	12890	test1	1	FJ72	Internal				00-00
9	12890	test1	100	FJ72	Internal				00-00
10	12890	test1	2	AD	External				00-00

View Change Order Details      View Revision History      Upload Documents

View Associated Doc. Attachments

Exhibit 5: The View Maintenance Change Request screen in Maintenance Change Request

The screenshot shows the 'View Maintenance Change Request' screen. The interface is divided into several sections, each with a set of fields. Two yellow callout boxes highlight specific fields:

- MCR Identification Details:**
  - MCR # / Rev. #
  - Subject
  - Doc. Issue Date
  - Eff. From Date
  - Reason for Revision
- MCR Details:**
  - Applicability
  - Effectivity Type
  - ATA #
  - Reason
  - Consequences
  - Terminating MCR
  - Reliability Impact?** (New display field)
  - User Defined 2
  - User Defined 4
- Source Document Details:**
  - Manufacturer #
  - Manufacturer Name
  - Source / Doc Type
- Execution Details:**
  - Est. Elapsed Time
  - Priority
- Contact Details:**
  - Source Category
  - Reg. Authority's Address

Additional fields visible on the right side of the screen include:

- Date Format
- Status
- Receipt Date
- Additional Search
- MCR Class
- Part Identifier
- Reason Category
- Background
- Action
- Mandatory?** (New display field)
- User Defined 1
- User Defined 3
- Approval Authority
- Source Doc Type
- Est. Man Hrs.

### Corporate Office and R&D Center

Ramco Systems Limited,  
64, Sardar Patel Road, Taramani,  
Chennai – 600 113, India  
Office + 91 44 2235 4510 / 6653 4000  
Fax +91 44 2235 2884  
Website - [www.ramco.com](http://www.ramco.com)