

# **RAMCO AVIATION SOLUTION**

## **ENHANCEMENT NOTIFICATION**

**Version 5.8.4**

**Maintenance**

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## WHAT'S NEW IN AIRCRAFT MAINTENANCE EXECUTION?

### Ability to retain Material Requests across Discrepancy Deferrals

Reference: AHBG-15422

#### Background

Typically in the Aviation maintenance scenario, a mechanic upon identifying a discrepancy in an aircraft records the discrepancy details in the system and then requests for material for resolving the discrepancy. Next, the material planner upon inquiry finds that the required material is not available in stock or in the designated warehouses or even a stock transfer from a nearby warehouse to the material request warehouse is not possible. The material planner then decides to procure the material from a vendor and raises a purchase request - purchase order for the material.

Meanwhile, the mechanic identifies that the reported discrepancy could be deferred on the basis of the MEL / CDL list. The mechanic now modifies the deferral limits so as to defer the discrepancy and releases the aircraft for operations. This results in the closure of the execution document to which the discrepancy was allocated. On closure of the execution document, the system automatically short closes the material request raised against the document. Since the material request is short closed, the goods received against purchase order raised for the material request could be allocated to other Open material requests. Later, when the same discrepancy is planned for execution in another package, the mechanic is forced to defer the discrepancy / ground the aircraft since the material is not available. This kind of scenario results in repeated material requests creation and delayed maintenance.

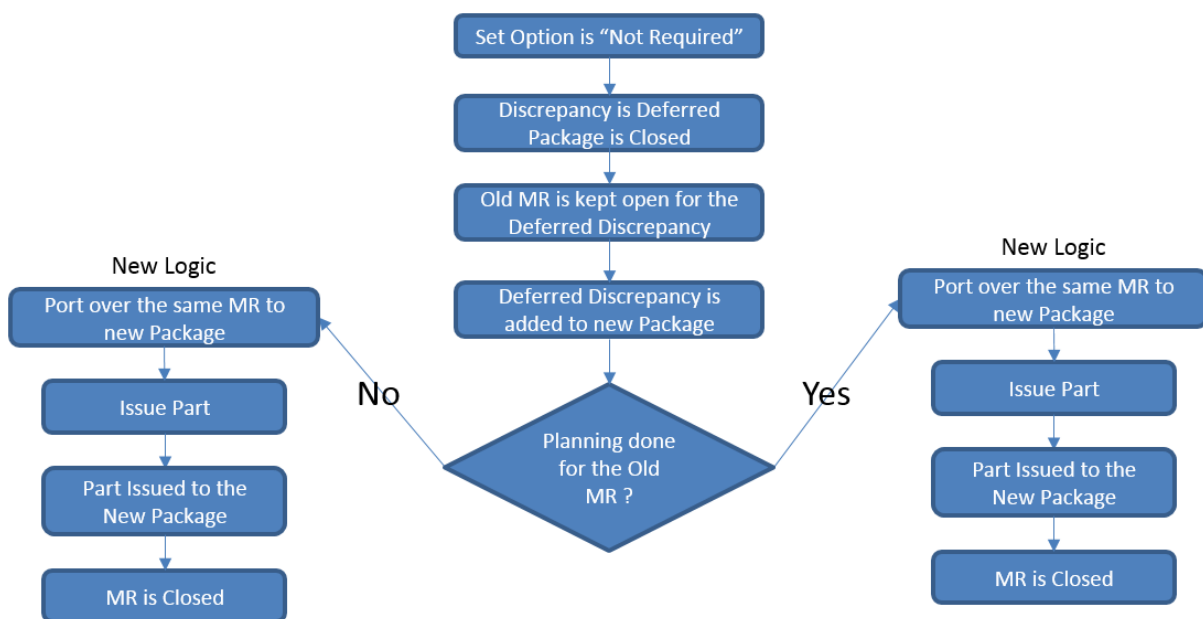
#### Change Details

As part of the enhancement, the system will now retain the same MR # (or at least have the Old MR # reference in a New MR, if the Old MR cannot be retained) across multiple discrepancy deferrals. This will ensure that any planning done against the MR # is retained. However, this enhancement will be dependent on the new process parameter "Auto-Short Close Open Material Requests of Deferred Discrepancies on Package Closure?" added under the Entity Type 'Package Type' and entity '--All Packages--' in the Define Process Entities page possessing the following behavior.

Process Parameter value	Impact in AME
0 (Not Required)	Authorized material requests are not short closed during package closure (New Behaviour)
1 (Required)	Authorized material requests are auto-short closed during package closure (Existing Behaviour)

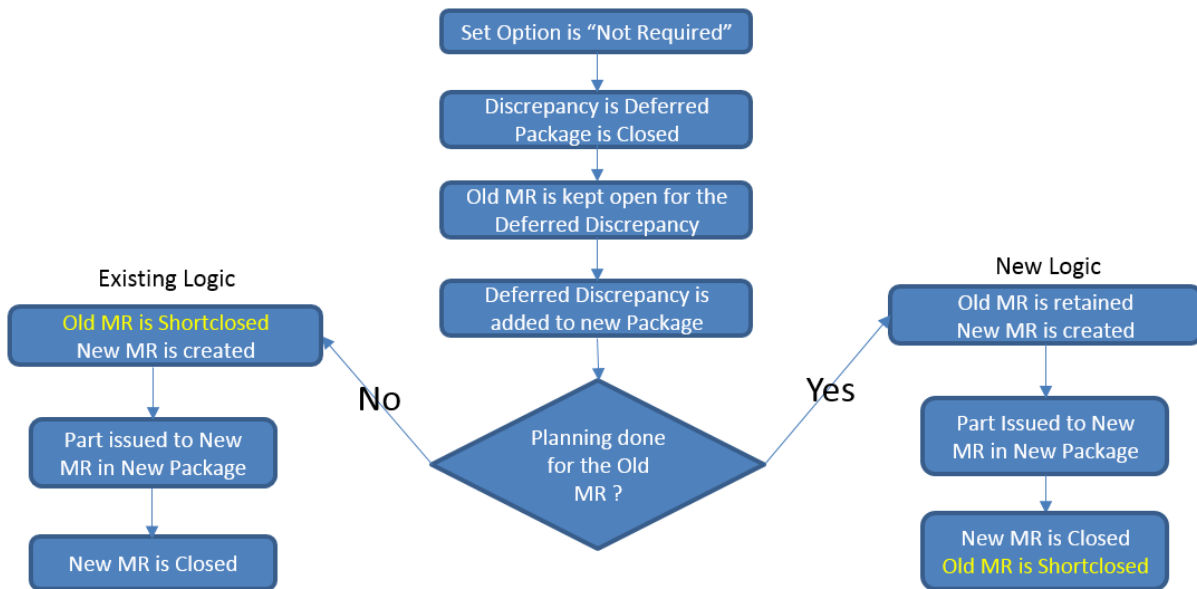
Two different behaviors could occur when the process parameter is set as "0" and a deferred discrepancy with Open material requests are added to the New package from a closed package.

**One**, the work center of the new package has the same Serviceable Request Warehouse as the work center of the Old package for the part type of the requested part. When the Serviceable Request Warehouse of the work center of the New package is the same one as the Old package, the following process happens:



Regardless of the planning done on the material request, the system will move over the material request to the new package.

**Two**, the Serviceable Request Warehouse of the work center of the New package is different from that of the Old package, the following process occurs:



If planning is available against the Old material request against the discrepancy added to a New package (whose Serviceable Request Warehouse is different from that of the Old package), the system keeps the Old material request pending and at the same creates a New material request for the same part and quantity and stamps the Old MR # in the **Remarks** field of the New material request (for the reference of the material planner to indicate that the New material request doesn't need planning as planning has already been done for the Old material request in the Old package). When the New material request is issued and closed, the system will automatically shortclose the Old material request.

*Note: No issue document can be confirmed against an material request that is open, if the Old package to which it refers to is already closed. On the contrary, If no planning is found against the Old material request associated with the discrepancy that has been added to a New package (whose Serviceable Request Warehouse is different), the system will auto-shortclose the Old material request and create a New Material request for the same part and quantity. It will not stamp the Old MR # in the Remarks field of the New MR # (as this reference is not needed as no planning is done against the old material request).*



## Ability to retain the same Material Request # for Tasks & Discrepancies when Exe. Work Center is changed

Reference: AHBG-15961

### Background

Typically, an AME identifies a discrepancy in an aircraft and added to a package. Next, MR are raised against the discrepancy for required parts, if they are found to be unavailable in the designated warehouses. Commonly, discrepancies are deferred to enable mechanics to close the execution document (based on the MEL / CDL list) and release the aircraft. Such deferred discrepancies are added to another package to facilitate their resolution. The work center of the new package to which deferred discrepancy is added may not be the same as that of the previous package as a result the warehouse of the old and new packages may or may be the same. In such scenarios, a provision to retain or transfer the MR (if material issues have not happened against the deferred discrepancies) to the new package would simplify and speedup the material request process already initiated for the deferred discrepancies.

### Change Details

Users have the option to change the work center of a package in the **Edit Package Additional Information** page. When such an event happens, the system processes the MR associated with the tasks in the package on the basis of the process parameter "Auto-Short Close Open Material Requests that have Planning Documents on Work Center Change of Tasks & Discrepancies?" under the entity type 'Package Type' and entity 'All Packages' is '0' in the **Define Process Entities** activity of **Common Master**.

Process Parameter Value	Impact on Open MR of task associated with deferred discrepancy when work center is changed
0	<p>If Serviceable Request Warehouse of the new work center is the same as Serviceable Request Warehouse of the previous MR and if any Stock Transfer Order, Stock Transfer Issue, Purchase Request, and Purchase Order documents are available for the MR, the following happens:</p> <ul style="list-style-type: none"><li>• The old MR is not short closed</li><li>• The work center and the need date are updated in the MR</li></ul>
1	<p>If Serviceable Request Warehouse of the new work center is different from Serviceable Request Warehouse of the previous MR,</p> <ul style="list-style-type: none"><li>• New MR is generated</li></ul>

- Old MR # is updated in the Remarks field of the new MR
- Old MR is short closed
- Stock Issues against the old MR are cancelled

Exhibit 1:

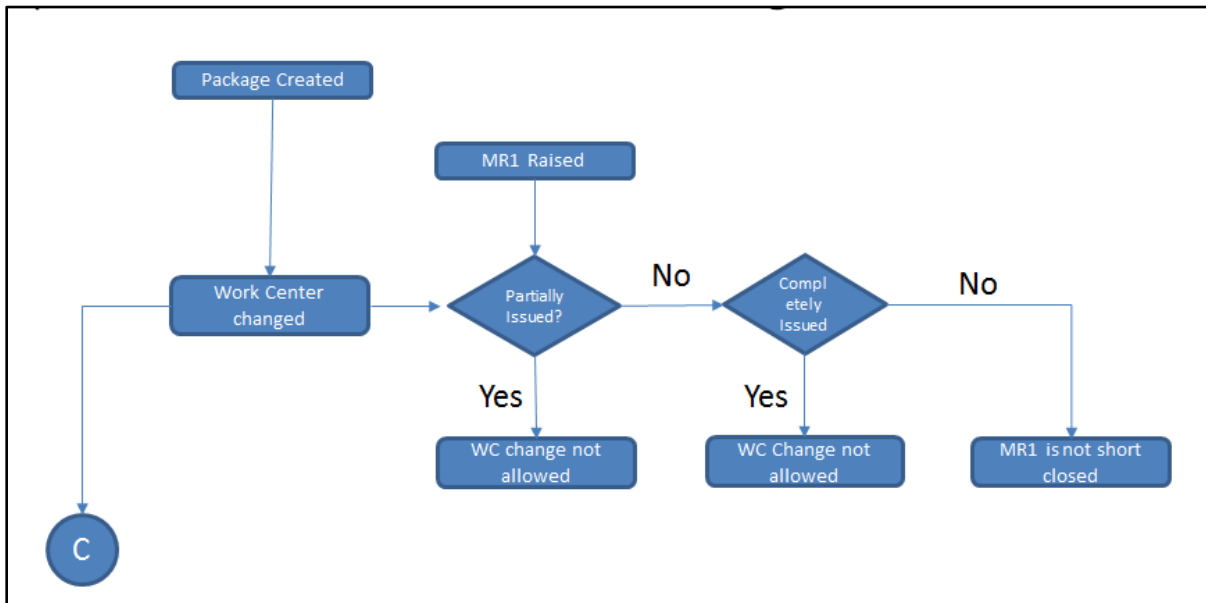
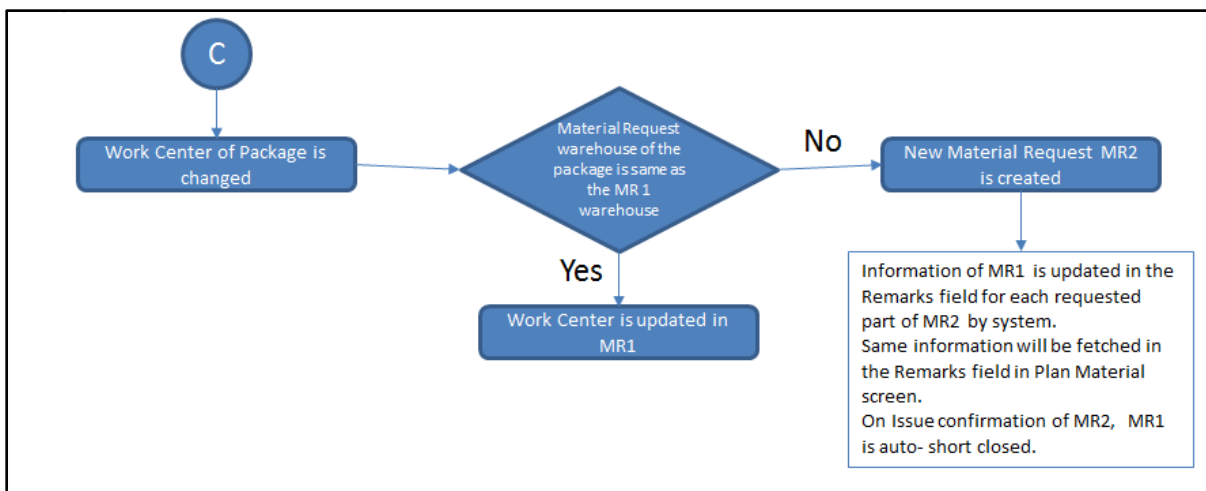


Exhibit 2:



## WHAT'S NEW IN WORK CENTER?

### Ability to capture Work Calendar and Holiday Master at the Work Center level for accurate Customer TAT calculations

Reference: AHBG-15891

#### Background

In a large Cabin Maintenance MRO scenario, maintenance and repair bases are spread across vast geographical locations. Each of these locations follow varied work and holiday calendars. Hence, TAT for parts received in the work centers must be computed in terms of business days taking into consideration location-wise work and holiday calendars.

#### Change Details

TAT for a part is defined in the **Maintain Maintenance Info. for Part** screen and also quoted in the contract with the customer. However, in reality, TAT could be spread over many more non-working days or holidays determined by the location of the work center. Hence, the system for computation of TAT must take into consideration the work and holiday calendars effective for the work center.

To ensure that TAT for a part sent to a work center is computed and conveyed to customers accurately, the following enhancements have been undertaken:

New activity **Maintain Standard Work Calendar for Work Center** in the **Work Center** business component has been developed to define work calendars specific to work centers. This screen allows users to record the following for a work center:

- Work start/end time
- Working hours in a day
- Working days in a week,
- Working days in a month

New tab **Holiday Definition** has been added in the **Associate Shift/Datewise Availability/Holiday Definition** screen to allow users to associate **Holiday Master** to work centers. In this tab, a holiday master code can be mapped to a work center for a specific period. (Holiday Masters can be created in the **Time Management Setup** business component.) A display-only version of the **Holiday Definition** tab is also available in the **View Shift/Datewise Availability/ Holiday Definition** screen for users to get to know the holiday master that has been mapped to the work center(s) and the effective period.

Based on work calendar and holiday definition for a work center and pre-set TAT for a part, the system will now be able to scientifically calculate the return date for the part.

Exhibit 1: The Maintain Standard Work Calendar for Work Center screen

★ Maintain Standard Work Calendar for Work Center Ramco Role - RAMCO OU

Set Work Timings and Weekly Off

#	Work Center #	Work Center Description	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Work Start Time	Work End Time
1	01	a	Working-Day	Working-Day	Working-Day	Weekly-Off	Weekly-Off	Weekly-Off	Weekly-Off	02:27:25 PM	06:27:25 PM
2	0210	work center_desc	Weekly-Off	Working-Day	Working-Day	Weekly-Off	Weekly-Off	Weekly-Off	Weekly-Off	02:00:00 AM	05:59:24 AM
3	1	1	Weekly-Off	Weekly-Off	Weekly-Off	Working-Day	Weekly-Off	Working-Day	Working-Day	09:00:00 AM	01:00:00 PM
4	100-00	Reference Work Center for 100-00	Weekly-Off	Weekly-Off	Weekly-Off	Working-Day	Weekly-Off	Working-Day	Working-Day	09:00:00 AM	01:00:00 PM
5	100-01	Reference Work Center for 100-01	Weekly-Off	Weekly-Off	Weekly-Off	Working-Day	Weekly-Off	Working-Day	Working-Day	09:00:00 AM	01:00:00 PM
6	100-02	Reference Work Center for 100-02	Weekly-Off	Weekly-Off	Weekly-Off	Working-Day	Working-Day	Working-Day	Working-Day	02:00:00 AM	05:59:24 AM
7	100-03	100-02	Weekly-Off	Weekly-Off	Weekly-Off	Working-Day	Weekly-Off	Working-Day	Working-Day	09:00:00 AM	01:00:00 PM
8	100-05	Reference Work Center for 100-05	Weekly-Off	Weekly-Off	Weekly-Off	Working-Day	Weekly-Off	Working-Day	Working-Day	09:00:00 AM	01:00:00 PM
9	100-50	Reference Work Center for 100-50	Weekly-Off	Weekly-Off	Weekly-Off	Working-Day	Weekly-Off	Working-Day	Working-Day	09:00:00 AM	01:00:00 PM
10	100-60	Reference Work Center for 100-60	Weekly-Off	Working-Day	Working-Day	Weekly-Off	Weekly-Off	Weekly-Off	Weekly-Off	02:00:00 AM	05:59:24 AM

Save

Exhibit 2: The Holiday Definition tab in the Associate Shift / Datewise Availability / Holiday Definition screen

★ Associate Shift / Datewise Availability / Holiday Definition Ramco Role - RAMCO OU

Date & Time Format dd-mm-yyyy

Search Criteria

Work Center # 01 Work Center Description a

From Date To Date

Get Details

Shift Details Datewise Availability **Holiday Definition**

Holiday Definition

#	Holiday Master Code	Description	Effective From	Effective To	Added By	Added Date
1	MS17RAMCO	Test Mid summer 2017	01-04-2017	31-05-2017	DMUSER	9/25/2017 2:53:13 PM
2	CH17	Chennai Holidays 2017	01-01-2017	31-12-2017	DMUSER	9/25/2017 2:59:17 PM
3						

Save

## WHAT'S NEW IN WORK MONITORING & CONTROL?

### Ability to Display TAT Info & Material Availability for Work Orders and update Plan Dates & Priority in WMC

Reference: AHBG-17591

#### Background

In the process of Work Order Planning, the maintenance planners must be able to update the Planned Start date & time and Planned End date & time and Priority for shop work orders. Further, the TAT details and material request status related to work orders must also be available for the planners to enable precise maintenance planning and control.

#### Change Details

The users can now modify the **Planned Start/End Date & Time** and **Execution Priority** of shop work orders and AME packages in the **Manage Work Assignments and Reporting** screen in **Work Monitoring & Control**. The system intuitively derives TAT and Material status information for tasks/discrepancies and also at the document-level (work order) based on updated planed dates and priority. All this new information from the **Manage Work Assignments and Reporting** screen is incorporated in the concerned work orders and packages for execution. To render comprehensive TAT information on work orders and material requirements in the **Manage Work Assignments and Reporting** screen, the following display columns have been added in Gantt for the maintenance object - Component # or Part #/Serial #.

- Planned Start Date & Time
- Planned End Date & Time
- Actual Start Date & Time
- Actual End Date & Time
- Total TAT Days
- TAT End Date
- Rem. TAT Days
- Customer Required Date
- Promised Delivery Date
- Excusable Delays
- Under Warranty?
- Warranty Type
- Doc. Class
- Priority

- Customer Order #
- Customer Name
- Material Status



*Note: The Warranty columns in Gantt are not available currently; will show in the next updated release.*

Under the **Update Plan** group box, the following new input fields have been added to enable the users to update tasks.

- Planned Start Date & Time: The proposed date & time for commencement of the task.
- Planned End Date & Time: The proposed date & time by which the task must be complete.
- Priority: The priority for the execution of the task.

### TAT Derivation for Internal Work Orders

The system automatically computes TAT for the work orders/packages on the basis of the process parameters that have been introduced in the Define Process Entities activity of Common Master as elaborated in the below table.

Process Parameter	Value	Computation of TAT Days
"Default TAT Days for Internal Work Orders?" under the entity type "Shop Work Order Type" and entity "All Work Order Types"	"0" / "Planned End Date - Planned Start Date"	Total TAT Days = Planned End Date/Time - Planned Start Date/Time
	Any Positive Integer.	Total TAT Days = Parameter value as defined in the Define Process Entities activity

### Total TAT Days Logic for External Work Orders

The system computes TAT Days in the following way:

- Total TAT Days = Customer TAT Duration (in Contract) + Adjustment Days (as of today if available)



*Note: If the TAT duration is not available in the customer contract, the system derives the TAT duration in the same way as it does for the internal work orders.*

### Total End Date Logic for Work Orders

The system computes TAT End Date in the following way:

- TAT End Date = Receipt Date (from the latest Customer Goods Receipt of the Main Core) + Total TAT Days



*If Receipt Date is not available in the Customer Goods Receipt of the Main Core, TAT End Date is set as Planned Start Date of the work order.*

### Rem. TAT Days Logic for Work Orders

- Rem. TAT Days = TAT End Date – Date/Time of Today

#### Derivation of Document-level Material Status for task/discrepancy in shop work orders

Scenario	Material Status of task/discrepancy
No MR available for the task/discrepancy	Not Requested
Material Status of all MR for the task/discrepancy is "Available"	Available
Material Status of all MR for the task/discrepancy is "Not Available"	Not Available
Material Status of all MR for the task/discrepancy is "Not Requested", "Available" and "Not Available"	Partially Available

#### Derivation of Document-level Material Status for shop work orders

Scenario	Material Status of work order
Material Status of all tasks/discrepancies in the work order in Planned/In progress status is "Not Requested"	Not Requested
Material Status of all tasks/discrepancies in the work order in Planned/In progress status is "Available"	Available
Material Status of all tasks/discrepancies in the work order in Planned/In progress status is "Not Available"	Not Available
Work order comprises tasks/discrepancies in Planned/In progress status with Material Status as "Not Requested", "Requested" and "Not Available".	Partially Available

### Search and retrieve shop work orders

The users can provide search criteria including Doc. Status, Task Status, Hold Status, Warranty coverage, Warranty Type, Doc. Class Doc. Priority, Task Exe. Priority, Doc. Material Status and Task Material Status to retrieve precise work orders and AME packages.

### Exhibit 1: The Manage Work Assignments and Reporting screen

**Manage Work Assignments and Reporting**

Date & Time Format: dd/mm/yyyy hh:mm:ss

**Search Criteria**

Maintenance Object:  Component #  Primary Work Center #

Ref. Doc. Type  Ref. Doc. #

**Review Work** | Manage Employee Work

Display Option:  All  Date: Task Planned Start  02/Sep/2017 00:00:00  01/Dec/2017 00:00:00

Search On:  Task #  Status:

Search By:  Material Availability:

**Search**

Task #	Task Desc	% Complete	Part #	Serial #	Work Center #	Exec. Phase	Exec. Status	Hold Status	ATA #	Est. Status	Parent Swo #
185-20					185-20						
OWO-000512-2017	Non destructive	0%	01-1200-50:MM		185-20		In-Progress			Released Estimates	
1-COMMON-13700-ACC-000000	ACCEPT CHECK	99%	01-1200-50:MM		185-20		In-progress		137-00	Not Required	
1-COMMON-13700-CAL-000000	CALIBRATION	50%	01-1200-50:MM		185-20		In-progress		137-00	Released Estimates	
CWO/000088/2017	400007 CO	100%	293838:9A023 101		185-20		Completed			Pending Confirmat	
CWO/000090/2017	CO for MOD	100%	293838:9A023 102		185-20		Completed			Pending Confirmat	
1200081823	Ordering for tes	0%	NSE-123HO12-E 0010106C		185-20		Planned			Not Required	
CWO/000097/2017	test	0%	0-0440-4-0001:		185-20		Planned			Released Estimates	
CWO/000099/2017	TEST	0%	0-0440-4-0001:		185-20		Planned			Not Required	
YUL-100-00		0%			YUL-100-00						
YUL-100-02		0%			YUL-100-02						
YUL-100-05		0%			YUL-100-05						

**Update Plan** | **Update Work Actual** | **Update Work Hold**

Task User Status  Priority  Start Date / Time  End Date / Time  Hold Code

Start Date / Time  Change Exec. Status to  % Complete  Comments

End Date / Time  File Name  [View File](#) Exec. Comments

**Update Plan** **Report Work Actuals** **Hold** **Release**



## WHAT'S NEW IN MAINTENANCE TASK?

### Ability to define Part Mod for Tasks

Reference: AHBG-17059

#### Background

The process of Part Modification entails altering a part so as to upgrade the part with superior qualities. This process is mandated by regulatory documents, such as Service Bulletins (SB) and CMM. Generally, customers approve of part modifications (called as Pre-Approved Mod) and send details including MOD # via E-mails to maintenance operators. This process is tracked using the Excel tool.

Currently, tracking of Part Modification using Mod # is not supported in Ramco Aviation. The MOD # change for each effective part as provided in the SB and CMM documents needs to be tracked against the maintenance tasks.

#### Change Details

The new **Maintain Task Part Mod Details** screen in **Maintenance Task** has been developed to record and view the **Part Mod** details against a Mod task.

The new screen captures the following vital part modification information; and defines **Mod #** to a task and part combination.

**Task #:** The task that is effective to the part to be modified as defined in the **Manage Task Effectivity** screen.

**Part #:** The part to be modified; must be effective for the task as defined in the **Edit Component Effectivity** screen.

**Mod #:** As stated in the regulatory document (SB or CMM); applicable to the part to be modified.

**Conditional Effectivity:** User defined conditions under which Mod # is effective for the part.

The **Maintain Task Part Mod Details** screen can be accessed via link from the following screens:

- Edit Component Effectivity
- Manage Task Effectivity

This screen in the View mode can be accessed via link from the following page:

- View Component Effectivity

Exhibit 1: The Maintain Task Part Mod Details page

★ Maintain Task Part Mod Details

States ▾ ⚙️ 📄 📁 ?

Search Criteria

Task #/Rev. #   Part #  Source Doc. #

Get Details

Task Part Mod Details

« 1 - 10 / 10 »

All ▾ 🔍

#	Task # <input type="text"/>	Rev. #	Task Description	Part # <input type="text"/>	Mfr. Part # <input type="text"/>	Mfr. # <input type="text"/>	Part Description	MSN - From <input type="text"/>	MSN - To <input type="text"/>	New Mod #	Conditional Effectivity
1	<input type="text"/>										
2	<input type="text"/>										
3	<input type="text"/>										
4	<input type="text"/>										
5	<input type="text"/>										
6	<input type="text"/>										
7	<input type="text"/>										
8	<input type="text"/>										
9	<input type="text"/>										
10	<input type="text"/>										

<

>

Save

## WHAT'S NEW IN SHOP WORK ORDER?

### Provision to display Part MOD Changes in Shop Work Order

Reference: AHBG-17221

#### Background

The process of Part Modification entails altering a part so as to upgrade the part with superior qualities. This process is mandated by regulatory documents, such as Service Bulletins (SB), CMM. After Part # - Serial # is altered / upgraded, it will be assigned a unique MOD # and compliance of that MOD # is carried out by tasks through a shop work order. Currently, Part Modification feature is not supported in Ramco Aviation and hence display of the MOD details for the Part # - Serial # is not possible in the associated shop work orders. A handy facility to view the status-wise breakup of modifications on the part – serial undertaken by tasks in the shop work order would be of immense help to the AME.

#### Change Details

A link **View MOD Details** link has been added in the following screens:

- **Plan Work Order**
- **Update Split/Main Core and Coverage Information**
- **Record Shop Execution Details**

This link opens the **View Part Serial Mod Details** pop-up window that provides vital information on the modifications undertaken on the part serial till date including.

On launching the View MOD Details pop-up window from the Plan Work Order Screen or Record Shop Execution Details screen, the following information will be displayed:

- **Part # - Part # of Main Core**
- **Part Description - Part Description of Main Core**
- **Serial # - Serial # of Main Core**
- **MOD In - MOD # complied on Part #**
- **Approved MOD – MOD # approved by customer and applicable on Part #**
- **Applied MODs - Displays MOD #, if the task with task type MOD with MOD definition available for Main Core in the **Maintain Task Part MOD Details** screen is planned for execution on Part # in the shop work order.**
- **MOD Out – Displays concatenation of MOD # and Applied MOD separated by ","**

On launching the View MOD Details pop-up from Update/Split Main Core screen after selecting as Associate Core, the following will be displayed:

- Part # - Part # of Associate Core
- Part Description - Part Description of Associate Core
- Serial # - Serial # of Associate Core
- MOD In - MOD # complied on Part #
- Approved MOD – MOD # approved by customer and applicable on Part #
- Applied MODs - Displays MOD #, if the task with task type MOD with MOD definition is available for Main Core in 'Maintain Task Part MOD Details' screen is planned for execution on Part # in the shop work order.
- MOD Out – Displays concatenation of MOD In and Applied MOD separated by ","

**MOD Reversal:** On completion of a MOD task, if the work order status changes to In-Progress, MOD # for the task gets removed from the MOD In list and gets added to the Applied MOD list.

**MOD Addition and Cancellation:** If a 'MOD' task effective to the part as defined in the **Maintain Task Part MOD Details** screen in **Maintain Task**, is added to the shop work order, MOD # for the part is added to both Applied MOD and Mod Out as displayed in the View popup. Conversely, if task type of 'MOD' is cancelled or pre-closed in the shop work order, the task is removed from Applied MOD and Mod Out lists.

The following activities are now provided with the **Manage Part Serial MOD Details** link to enable users to view / modify MOD # for the part # / serial # in the shop work order.

- Record Shop Execution Details screen
- Review Work Execution screen

**Display of MOD # in CoM:** The process parameter "Display MOD # while issuing Certificate of Maintenance?" has now been added under the entity type 'Shop Work Order' and entity 'Individual Work Order' in the Define Process Entities screen. This process parameter determines the display of MOD # in the Certificate of Maintenance tab of the Issue Certificates screen as illustrated in the table below.

<u>Process Parameter Value</u>	<u>Impact in CoM</u>
1 / Yes	The <b>Certifying Remarks</b> field in the <b>Certification of Maintenance</b> tab of <b>Issue CoM</b> screen displays MOD Out #' for the SWO by default. The multiple MOD Out # are displayed using the delimiter ',' Example: MOD Out # = 1,2,5,9
0 / No	No default value appears in the <b>Certifying Remarks</b> field in the <b>Certification of Maintenance</b> tab of <b>Issue CoM</b> screen.

**Display of Task Description in CoM:** The process parameter "Display Task Description while issuing Certificate of Maintenance?" has now been added under the entity type 'Shop Work Order' and entity 'Individual Work Order' in the **Define Process Entities** screen. This process parameter determines the contents displayed in the **Certifying Remarks** field # in the **Certificate of Maintenance** tab of the **Issue Certificates** screen as illustrated in the table below.

<u>Process Parameter Value</u>	<u>Impact in CoM</u>
1 / Yes	The <b>Certifying Remarks</b> field in the <b>Certification of Maintenance</b> tab of <b>Issue CoM</b> screen displays each of the tasks from the SWO and their description by default. Example: Task Description: Task 1; 2. Task 2; 3. Task 3 with all task descriptions in the same sequence as planned in the SWO and using the ';' delimiter. However, the descriptions of tasks in any status other than 'Cancelled' only are displayed.
0 / No	No default value appears in the <b>Certifying Remarks</b> field in the <b>Certification of Maintenance</b> tab of <b>Issue CoM</b> screen.

**Exhibit 1:** The **Part Serial Mod Details** pop-up

Part Serial MOD Details			
Part #	RD-NA1002-02	Description	IPS Controller
Serial #	9682		
Mod In	1,2,3,4,7,12	Approved MODs	1,2,3,4,7,12,17, 21
Applied Mods	17	Mod Out	1,2,3,4,7,12,17

Exhibit 2: The Certificate of Maintenance tab in the Issue of Certificates screen

**Issue Certificates**

Part Id Tag **Certificate of Maintenance** Certificate of Conformity Certificate of Calibration

Create Certificate Reprint Certificate Replace Certificate

Reference Type **Work Order #** Reference #

**Issue Details**

Certificate #  Numbering Type  Certificate Status   
 Printed?  # of Copies  Replaced Cert #   
 Paper Doc #

**Main Core Details**

**Reference Details**

Work Order #  Order Description  Event #   
 Customer #  Customer Order #  Customer PO #   
 Ref Doc #/Rev #  Rev Date  Final Disposition **1-REPAIR**  
 Shelf Life Exp Date  Work Status **Advance Exchange** ☐ Inspect ☐ Repair ☐ Overhaul ☐ Modify ☐ Inspected/Tested ☐ New ☐ Prototype ☐

**Certificate Details**

Certifying Remarks

Eligibility

**Document Attachment Details**

File Name

**Authorization Details**

Employee Code  Employee Name **SENECHAL, DOMINIC** Primary Workcenter # **185-20**  
 License #  Authorization #  Authorization Ref #   
 Skill Code  Issued Date **20-Oct-2017 09:13:18**  
     
 Created by  Modified by  Approved by   
 Created Date  Modified Date  Approved Date

#	Certificate Type	Reqd?
1	8130-3	<input type="checkbox"/>
2	AIR CARRIER 8130-3	<input type="checkbox"/>
3	ARWE	<input type="checkbox"/>
4	As Per LaserFiche	<input type="checkbox"/>
5	CAAC AAC-038	<input type="checkbox"/>

#	Certifying Authority	Reqd?
1	Aveos	<input type="checkbox"/>
2	CAAC	<input type="checkbox"/>
3	CASE	<input type="checkbox"/>
4	EUROPEAN AVIATION SAFETY AGENCY	<input type="checkbox"/>
5	FEDERAL AVIATION AUTHORITY	<input type="checkbox"/>

Displays Task Description or Mod # based on process parameter value.

## License validations in Shop based on HRMS attributes

Reference: AHBG-17469

### Background

During sign-off, annulment or rejection of tasks in a shop, the system must have the capability to validate the license attributes of mechanics/inspectors. Further, the system must also verify the license definition of mechanics/inspectors at the time of issuing certificates and ensure that the mechanic/inspector is eligible to perform the task of issuing certificates for complying tasks in shop work order.

### Change Details

The system will now ensure that only those mechanics/inspectors that have passed license validation can sign-off, void or reject tasks in the **Record Shop Work Order Details** screen.

However, this kind of validation is carried out on the concerned employee only if the new process parameter "Validate Employee Certificate/License availability during Sign-off/Reject/Void of Non-Routines?" under the entity type Shop Work Order Type and the entity User- Defined in the Define Process Parameters activity is 1.

The system validates the license validation attributes of the employee at the time of saving, approving and printing of certificates in the **Issue Certificates** screen, if the process parameter "Validate Employee Certificate/License availability during Sign-off/Reject/Void of Non-Routines?" is '1'.

In the same way, the system allows the employee to sign-off, void or reject a task or save, approve or print certificates (Part Id Tag, Certificate of Maintenance/Conformity/Calibration) only if the following attributes of the task/ Non-standard task and the License attributes of Employee # in HRMS business component (Record License Information screen) are identical:

1. Base Part # of Part # in Associated Cores of Work Order
2. Part Group of Part # in Associated cores of Work Order
3. Station of Task/ NST Work Center
4. Resource Group of Task/ NST

Exhibit 1: The Record Execution Details screen

**Record Shop Execution Details**

Search On   Date & Time 20-Oct-2017 09:56:52

☒ Append

Search - Filter

**ShopWorkOrder**

- OWO-000398-2013
- CWO-008681-2017
- AWO-000006-2012
- CWO-000253-2012
- CWO-000001-2011
- OWO-000012-2011
- CWO-000018-2011
- CWO-008647-2017

**Links**

- Record Missing Parts List
- Record Part Deviation List
- Report Resource Actual
- Record Parameter Reading
- Route Parts
- Record Part Consumption
- Manage Teardown Information
- Record Part # / Serial # Change
- Edit Work Estimates
- Update / Split Main Cores
- Plan Work Order
- Generate Sub-Work Order
- Manage Work Assignments and Reporting
- Certificate Information
- Manufacturing Data
- Create Eng. Service Request
- Inquire Eng. Service Request
- Edit Work Order Addl. Info.

**Work Actual** | Report Findings | Disassemble & Assemble Core | Initial Workscoping | Material Request

Display by ☒ Task ☐ Subtask

**Task Details**

#	M	HS	CI	SS	ES	SWO #	Task #	Task Desc.	Task #	Clock Start Date & Time	Clock End Date & Time
1	N	N	C	M	PE	CWO-000018-2011	1	do something on it and make	NST-000014-	27-Nov-2014 11:51:03	
2	N	N	C	NR	NR	CWO-000253-2012	1	Operational-1	3-00000024	01-Dec-2014 12:22:15	
3	N	N	M	M&I	NR	CWO-008647-2017	1	Part Serial Change	NST-004173-	03-Aug-2017 19:26:09	
4	N	N	M	NR	NR	CWO-008681-2017	1	task-002	NST-004803-	09-Aug-2017 15:48:14	
5	N	N	M	NR	NR	OWO-000398-2013	1	ops 23 feb	3-A33-00-AC-	27-Nov-2014 12:30:44	
7	N	N	C	NR	NR	AWO-000006-2012	2	Operational-2	3-50C-00-CHM-	01-Dec-2014 15:54:18	
8	N	N	M	NR	NR	CWO-008681-2017	2	task-003	NST-004828-	18-Aug-2017 12:46:15	
9	N	N	C	M	NR	CWO-000018-2011	3	test adding non-routine	NST-000090-	01-Dec-2014 15:13:32	
10	N	N	C	M	NR	CWO-000018-2011	3	test adding non-routine	NST-000090-	01-Dec-2014 15:16:07	

**Time Sheet**

☒ Parts Returned?

**In-Direct**

In-Direct Cat. Meeting Start Date/Time 17-Oct-2016 16:18: End Date/Time

**Sign-Off Details**

Mechanic  Inspector  Addl. Sign-Off   
 Skill  RII   
 Comments

**Receive Part**

Primary Work Center #

**Hold / Release**

Hold Code     Comments

**Message Center**

May require employee License validation



Exhibit 2: The Issue Certificates screen

The screenshot displays the 'Issue Certificates' application window. It features several tabs at the top: 'Part Id Tag', 'Certificate of Maintenance', 'Certificate of Conformity', and 'Certificate of Calibration'. The 'Part Id Tag' tab is active.

**Select Action:** Includes radio buttons for 'Create Tag' (selected), 'Reprint Tag', and 'Replace Tag'. A 'Reference Type' dropdown is set to 'Work Order #', and a 'Reference #' search field is present. A 'Get Details' button is located to the right.

**Part Tag Details:** Includes fields for 'Part Tag #', 'Numbering Type' (set to 'PTAG'), 'Printed?' (with a '# of Copies' sub-label), 'Part Tag Status', and 'Replaced Tag #'. A 'Main Core Details' expandable section is also visible.

**Reference Details:** Includes fields for 'Work Order #', 'Customer #', 'Work Performed', 'Order Description', 'Customer Order #', 'Involved in Rework' (checkbox), 'Event #', 'Customer PO #', and 'Final Disposition' (set to '1-REPAIR').

**Additional Details:** Includes a 'Comments' text area, 'SB/AD' text area, and a 'Reason for Rejection' dropdown.

**Document Attachment Details:** Includes a 'File Name' field, 'Upload Documents' button, and 'View Associated Doc. Attachments' link.

**Authorization Details:** This section contains the following fields and controls:

- Employee Code:** 00041383
- License #:** 00041
- Skill Code:** 02
- Employee Name:** SENECHAL, DOMINIC
- Authorization #:** [Empty]
- Issued Date:** 20-Oct-2023 09:13:18
- Primary Workcenter #:** 100-03
- Authorization Ref #:** [Empty]

At the bottom of the 'Authorization Details' section, there are four buttons: 'Save', 'Preview', 'Approved & Print', and 'Cancel'. Two yellow callout boxes with black text point to the 'Save' and 'Approved & Print' buttons, both stating: 'May require employee License validation'. Below these buttons are fields for 'Created by', 'Created Date', 'Modified by', 'Modified Date', 'Approved by', and 'Approved Date'.

## WHAT'S NEW IN CONFIGURATION?

### Ability to define Equip. Group, Equip. Category and Cabin Equipment

Reference: AHBG-15172

#### Background

To facilitate the development of LOPA (Layout of Passenger Accommodation) graphical interface in the **E-Logs** application, a provision was required to define equipment groups and then map equipment categories and cabin equipment to specific equipment groups. The setup of such master data was required to facilitate depiction of cabin equipment attached to specific cabin position codes in an aircraft.

#### Change Details

Equipment Group has been added as a quick code type in the **Create / Edit / View Quick Codes** activity of the **Aircraft** business component to facilitate users to map equipment categories and cabin equipment to a specific equipment group.

Example: Users can define In-Flight Entertainment (IFE) and Global Communication Satellite (GCS) as quick codes under the Equipment Group quick code type.

A new screen called **Maintain Cabin Equipment List** in the **Configuration** business component has been developed to map equipment categories and cabin equipment to an equipment group.

Examples:

- Equipment Categories could be eX1, eX2, eX3, eXline, etc. that indicate the version of the equipment
- Cabin Equipment could be Monitor, Harness Assembly, ADB, ADB Ports, WiFi, File Servers representing the gadgets or devices

In the **Equipment Category List** tab of the **Maintain Cabin Equipment List** screen, users can specify the equipment categories to be associated with the chosen equipment group. Similarly, in the **Cabin Equipment List** tab of the same screen, users can link the cabin equipment to the equipment group

Exhibit 1: The Create Quick Code screen

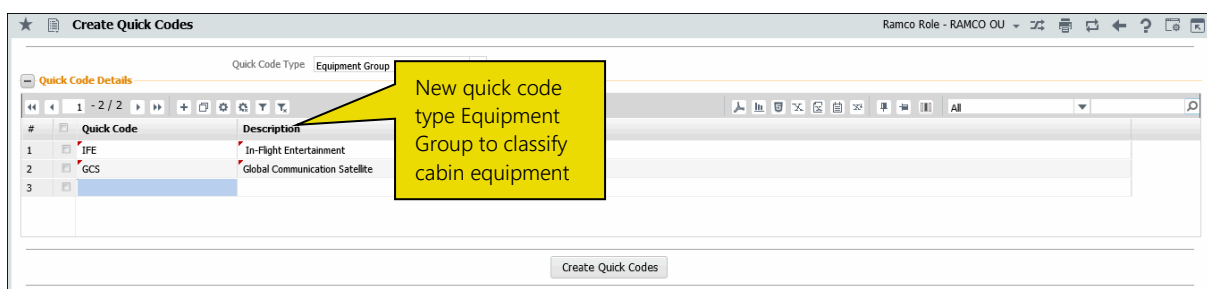


Exhibit 2: The Maintain Cabin Equipment List screen

★ Maintain Cabin Equipment List Ramco Role - RAMCO OU

Equipment Group

Equipment Category List

Mapping equipment category to equipment group

#	Equip. Category Code	Equip. Category Desc.	Status	Created By	Created Date	Last Modified By	Last Modified Date
1	Monitor	Monitorsd	Active	DMUSER	16-Aug-2017 07:40:11 PM	DMUSER	17-Aug-2017 04:54:21 PM
2	Monitor1243	Monitor1243dsd	Active	DMUSER	16-Aug-2017 07:40:29 PM	DMUSER	17-Aug-2017 11:26:05 AM
3			Active				

Save

Exhibit 3: The Equipment Category List tab in Maintain Cabin Equipment List screen

★ Maintain Cabin Equipment List Ramco Role - RAMCO OU

Equipment Group

Equipment Category List

Mapping cabin equipment to equipment group

#	Cabin Equipment	Cabin Equipment Desc.	Status	Created By	Created Date	Last Modified By	Last Modified Date
1	SD	SD	Active	DMUSER	16-Aug-2017 03:00:39 PM		
2			Active				

Save

## Ability to associate Equipment Category to Position Codes

Reference: AHBG-15617

### Background

In order to facilitate definition of LOPA specific to an aircraft, cabin items must be mapped to cabin position # in the cabin layout configuration of an aircraft. To ensure that only a specific category of equipment is attached to a position code, a provision to associate an equipment category to the position code is required in the aircraft and component configuration building screens.

### Change Details

To enable users to map an equipment category to a position code, the following enhancements have been carried out:

- A drop-down list box **Equipment Category** that lists the Active equipment categories defined in the **Maintain Cabin Equipment List** screen for an equipment group has been introduced in the following screens of the **Configuration** business component:
  - **Build Model Configuration**
  - **Build Aircraft Configuration**
  - **Build Part Configuration**
  - **Build Component Configuration**
- A display field **Equipment Group** has also been added in the following screens to reveal the equipment group to which the equipment category belongs:
  - **Build Model Configuration**
  - **Build Aircraft Configuration**
  - **Build Part Configuration**
  - **Build Component Configuration**
- Consequently, two display fields **Equipment Category** and **Equipment Group** have been added in the following screens of the **Configuration** business component to display the equipment category and equipment group tagged to the position codes in the configuration:
  - **View Model Configuration**
  - **View Aircraft Configuration**
  - **View Part Configuration**
  - **View Component Configuration**

Exhibit 1: The Build Model Configuration screen

**Build Model Configuration** Ramco Role - RAMCO OU 1 2 3 4 5 /1424

Date Format dd-mm-yyyy

**Model Details** Aircraft Model # 000 Aircraft Make 00000

**Copy Details** Aircraft Model # 737-200 Configuration Class CONFIG  
Revision # 1  
Copy Options ☒ All ☐ CDL  
☐ Configuration Rules ☐ MEL

**Configuration Attributes** Configuration Class SM-01 Revision # 0  
Config. Status Fresh Config. Control Basis Part Effectivity

**Configuration Details**

#	<input type="checkbox"/> RVSM	Zone #	Position Formula #	ATA #	Base Part #	Part Description	Equipment Category	Equipment Group	Drawing #	File Name	Remarks
1	<input type="checkbox"/> No		C1				ex1				
2	<input type="checkbox"/> No										

Re-Number

[View File](#)

☒ Inherit Changes to Aircraft

**Document Attachment Details** File Name [View File](#)

[Build Model Configuration](#)

[Edit Configuration Deviation List](#)
[Edit Minimum Equipment List](#)
[Edit Piece Part List for Model](#)

[Edit Notes](#)
[Edit Position Attributes](#)
[Build Part Configuration](#)

**Record Statistics**

Revised by  
 Approved by  
 Comments

Revision Date  
 Approved Date

Exhibit 2: The View Model Configuration screen

**View Model Configuration** Ramco Role - RAMCO OU « 1 2 3 4 5 » 2 / 52

Date Format: dd-mmm-yyyy

Aircraft Model #: 737-200 Aircraft Make: 81205

Search - Filter X

737-200

P1 || 0-0440-4-0001:36361 || ENGINE

**Configuration Attributes**

Configuration Class: AI-707 Config. Status: Active  
Revision #: 0 Config. Control Basis: Part Effectivity

**Display Filter**

Position Code: 1##P1 Part #: 0-0440-4-0001:36361  
NHA: 737-200##modelno##0-0440-4-0 ATA #  
Display Level: 0 Get Details

**Configuration Details**

[No records to display]

#	Component	Def	Cargo	RVSM	Zone #	Position Formula #	ATA #	Base Part #	Part Description	Equipment Category	Equipment Group	NHA	Revision #	Drawing #	File Name	Remarks
1																

**Document Attachment Details**

File Name

View Notes

View Part Number Modification History

View Part Interchangeability Rules

View Part Program Information

View Piece Parts List

View Configuration Deviation List

View ETOP Twin Positions

View Position Based Schedule

View Minimum Equipment List

View Part Intermixing Rules

View Piece Parts List for Model

**Record Statistics**

Revised by: DMUSER  
Approved by: DMUSER  
Source

Revision Date: 17-Aug-2015  
Approved Date: 21-Mar-2014  
Owner

Comments

## Ability to manage LOPA specific to an Aircraft

Reference: AHBG-15514

### Background

To develop LOPA framework for aircraft / model, a facility to record cabin layout in terms of decks, sections and seat and non-seat positions within sections of aircraft model / aircraft and then to map cabin equipment to positions was not available in the system. Further, ability to map non-seat positions to cabin equipment in sections of the cabin layout was also a vital prelude for the depiction of LOPA using a graphical interface.

### Change Details

- In the **Aircraft** business component, quick code type of **Equipment Group** introduced in the **Create / Edit Quick Codes** screen to identify the type of equipment that can be attached to cabin position #.
- A new screen **Manage Cabin Equipment List** in the **Configuration** business component has been developed to map equipment categories and cabin equipment to an equipment group.
- Provision to map equipment categories to position codes is provided in the following activities of **Configuration** business component:
  - Build Model Configuration
  - Build Aircraft Configuration
  - Build Part Configuration
  - Build Component Configuration
- A new screen **Manage Cabin Layout** screen has been developed to define cabin layout at both aircraft model (aircraft model, configuration class and maintenance operator combination) and specific aircraft levels.
  - Cabin Layout details can be defined for single and double decks
  - Define different sections in the cabin layout and then tag the sections to section class, such as First Class, Business Class, Premium Economy Class, Economy Class and Others
  - Can define both Seat and Non-seat sections
  - For Seat sections, Cabin Position number will be auto generated based on Column Layout, Starting Row # and Ending Row #.
  - For Non Seat sections, users must provide non-seat count and unique identifier each non-seat position
  - A **Search** facility provided to find the models / aircraft for which the user wants to define cabin layout. Further, users can choose to include models / aircraft in the search for which layout has not been already defined.
    - When the user searches for Aircraft Models, the results will be grouped under the

## Aircraft Model #

- When the user searches for Aircraft Reg. #, the results will be grouped based on 'Group By' option provided. Users can group by Aircraft Model #, Maint. Operator # & Customer # also.
- The **Cabin Layout Status** field indicates if the cabin layout has been defined for specific aircraft. The cabin layout status becomes 'Fresh' on saving of the cabin layout details.
- On confirming the cabin layout details, the layout status becomes 'Active'.
- Additionally, the cabin layout will be inherited to the Aircraft from the Aircraft Model on activation of the Aircraft.
- Another new link screen **Map Cabin Configuration** accessible from the Manage Cabin Layout screen is developed to tag Cabin Position # to Cabin Equipment and Equipment Category.
  - If a section is removed from the cabin layout, mapping of Cabin Position # to Equipment Category and Cabin Equipment are automatically deleted for the model / aircraft.
  - Layout Status becomes 'Fresh' on saving the mapping details for specific aircraft.
  - On confirmation of mapping details, the status of the layout of an aircraft becomes Active. However, this is not applicable to aircraft models.

**Exhibit 1: The Manage Cabin Layout** (for Aircraft Model, Configuration Class and Maint. Operator combination) screen

The screenshot shows the 'Manage Cabin Layout' interface. On the left, the 'Search Criteria' panel has 'Aircraft Model #' selected, with 'A-310' entered in the dropdown. Below it, 'Search Results' shows 'A-310' and 'CARGO'. A yellow callout points to the 'Aircraft Model #' dropdown with the text: 'Select aircraft model to specify the model to retrieve a specific model.' The main panel has 'Layout Definition' at the top with 'Aircraft Model #' set to 'A-310', 'Configuration Class' set to 'ABC', and 'Maint. Operator #' set to '00C'. Below this, 'Cabin Layout for' shows 'Aircraft Model #' as 'A-310' and 'Configuration Class' as 'CARGO'. The 'Deck Details' section shows 'Double Deck?' as 'Yes' and 'Deck' as 'Main'. The 'Cabin Sections' table is visible with columns: #, Section Name, Section Desc., Section Class, Seat Section?, Column Layout, Row Count, Starting Row #, Ending Row #, Seq #, Non-Seat Count, and Non-Seat Identifiers. The table contains two rows: Row 1 with Section Name 'A1', Section Desc. 'Super Business', Section Class 'Business Class', and Row Count '10'; Row 2 with Section Name 'A1', Section Desc. 'Business Class', Section Class 'Business Class', and Row Count '5'. A yellow callout points to the 'Seat Section?' checkbox in the first row with the text: 'Select Seat Section? check box to indicate the section comprises passenger seats.' At the bottom, there is a 'Map Cabin Configuration' link and a 'Record Statistics' section with fields for 'Created By', 'Created Date', 'Last Modified By', and 'Last Modified Date'.



Exhibit 2: The Map Cabin Configuration (for Aircraft Model, Configuration Class and Maint. Operator combination) screen

Map Cabin Configuration

Cabin Layout for Aircraft Model # A-310 Configuration Class ABC Maint. Operator # OC

Display Option Cabin Equipment

Get Cabin Positions Template

#	Cabin Equipment	Cabin Position #	Config. Level Code	Config. Position Code	Config. Part #	New Position?	Standard Part #	Equipment Category	Section Name	Section Desc.
1	M1					No				
2						No				

Save

Record Statistics

Created By Created Date Last Modified By Last Modified Date

Exhibit 3: The Manage Cabin Layout (for specific aircraft) screen

Manage Cabin Layout

Search Criteria

Aircraft Model # Aircraft Reg. # 101

Group By Aircraft Model #

Include Undefined? Search

Search Results

Layout For Layout 2

Layout Definition

Cabin Layout for Aircraft Reg. # 101 Aircraft Model # A310 Configuration Class ABC

Get Details

Cabin Layout defined? Yes

Deck Details

Double Deck? Yes Deck Main Max Seat Column Layout ABC,DEFG,HJK

Cabin Sections

#	Section Name	Section Desc.	Section Class	Seat Section?	Column Layout	Row Count	Starting Row #	Ending Row #	Seq #	Non-Seat Count
1	United Economy	United Economy Class - Economy Class	Economy Class		ABC,DEFG,HJK	60	1	60	1	
2	United Economy	United Economy Class - Economy Class	Economy Class						2	
			Business Class							

Save Confirm

Map Cabin Configuration

Record Statistics

Created By DMUSER Created Date 30-Aug-2017 Last Modified By Last Modified Date

Exhibit 4: The Map Cabin Configuration (for specific aircraft) screen

★ Map Cabin Configuration

Ramco Role - RAMCO OU

Aircraft Details

Cabin Layout for Aircraft Reg. #

Aircraft Reg. # 101

Aircraft Model # A310Configuration Class ABC

Maint. Operator #Cabin Layout Status Fresh

Display Option

Get Cabin Positions Template

1 - 10 / 601

#	Cabin Equipment	Cabin Position #	Config. Level Code	Config. Position Code	Config. Part #	New Position?	Standard Part #	Equipment Category	Section	Section Desc.
1		WiFi				No			United	United Economy Class -
2		10A				No			United	United Economy Class
3		10B				No			United	United Economy Class
4		10C				No				United Economy Class
5		10D				No				United Economy Class
6		10E				No				United Economy Class
7		10F				No				United Economy Class
8		10G				No				United Economy Class
9		10H				No				United Economy Class
10		10J				No				United Economy Class

SaveConfirm

Record Statistics

Created By DMUSERCreated Date 30-Aug-2017Last Modified ByLast Modified Date

Associate cabin equipment to cabin positions in the layout.

Click this pushbutton to retrieve entire seat and non-seat positions from the cabin layout.

## WHAT'S NEW IN ENGINEERING DOCUMENT?

### Provision to display information of revoked EO

Reference: AHBG-13737

#### Background

The regulatory agencies may revoke an engineering document making the engineering tasks ineffective for the maintenance objects. The revoked status of the engineering document must be displayed explicitly for the benefit of the maintenance planners.

#### Change Details

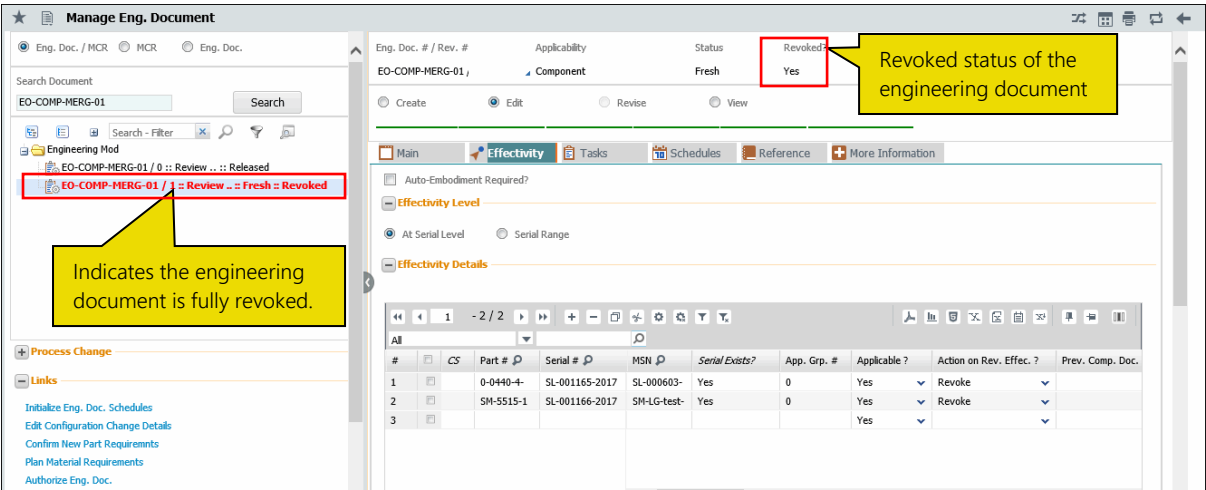
In the **Manage Engineering Document** screen, new display field in the header **Revoked?** indicates whether the engineering document has been fully or partially revoked.

The tree in the **Manage Engineering Document** screen also displays the status of the engineering document as 'Revoked' and highlights the node in RED, if the revoked status of the document is 'Yes'.

The system derives the revoked status of the engineering document as elaborated in the below table.

Condition	Revoked? field displays	Color indicators
All the rows in the <b>Effectivity</b> tab with 'Applicable' as 'Yes' and "Action on Rev. Effec.?" not 'Revoked'	No	Indicates the engineering document is valid. The node text is displayed in Black.
All the rows in the <b>Effectivity</b> tab of the Eng. Doc. with 'Applicable' as 'Yes' and "Action on Rev. Effec.?" as 'Revoked'	Yes	Indicates the engineering document is not valid. The node text is displayed in Red.
All the rows in the <b>Effectivity</b> tab with 'Applicable' as 'Yes' though "Action on Rev. Effec.?" in some of the applicable rows set as 'Revoked'	Partial	Indicates the engineering document is partially valid. The node text is displayed in Black.

Exhibit 1: The Manage Engineering Document screen



## Ability to preview EO schedules

Reference: AHBG-13554

### Background

Based on Service Bulletins from OEM (Original Equipment Manufacturers), modifications are incorporated in the schedules of existing tasks or new tasks are added in the engineering document (EO). On revision and release of such EO, it is possible that some of the tasks in the maintenance program could become overdue because of EO schedule change. Hence, a provision to preview the task level impact i.e., Last Performed Date/Value, Current Program Next Scheduled Date/Value, EO Next Scheduled Date/Value (New) along with the basis of EO Next Scheduled Date/Value calculation prior to release of EO would benefit the maintenance planners.

### Change Details

New **Exception Summary** section in the **Initialize Eng. Doc. Schedules** screen comprises the following tiles:

- All: Shows the total count of schedules in the engineering document.
- Overdue: Shows count of overdue schedules in the engineering document
- Alert: Shows the count of schedules that have crossed the alert value/date.

On click of a tile, the schedule records pertaining to the tile are displayed in the multiline.

New display fields have now been added in the multiline of the **Initialize Eng. Doc. Schedules** screen of **Engineering Document** to highlight the impact of engineering document on tasks.

- Flag (Displays Red, if the parameter value of the task has crossed Alert Date/Value; Displays Yellow, if the task is overdue)
- NSD/NSV Changed? (Indicates whether EO NSD/NSV and Program NSD/NSV are the same or different)
- Rem. Value (Eng. Doc.)
- Next Due Calc. On (Eng. Doc.)
- Calc. Ref. Date/Value (Eng. Doc.)
- Alert Date (Eng. Doc.)
- Alert Value (Eng. Doc.)
- Aircraft Model #

The following fields in the multiline have also been renamed to reflect the impact on task.

- Next Sch. Date changed to Next Sch. Date (Eng. Doc.)
- Next Sch. Value as -> Next Sch. Value (Eng. Doc.)

**Initialize Eng. Doc Schedules**

Eng. Doc # EO-000675-2016 Revision # Subject Bearing Staking Inspections: Main Rc Applicability Aircraft

Source Doc. Type EO Eng. Doc Type EO Effective From Date 16-09-2016 User Status

**Exception Summary**

All 1 Overdue 1 Alert 0

Tile cards retrieve schedules based on exception status of schedules

**Eng. Doc Schedule Details**

#	Flag	NSD/NSV changed?	Aircraft Reg. #	Task #	Schedule Type	Parameter	Time Unit	Threshold Date	Threshold Value	Interval	Initialization Date	Initialization Value	Next Sch. Date (Eng. Doc.)
1		No	A1102	EO-000675-2016	Recurring	FC			60.00	60.00			24.00
2													

[View Aircraft Schedules](#) [View Comp. Schedule Details](#) [Plan Material Requirements](#) [Release Eng. Doc.](#)

## Ability to add EO task to program in Inactive Status for Inactive Aircraft

Reference: AHBG-14980

### Background

Currently, on release of an engineering document, the engineering tasks get added to the maintenance programs of effective aircraft, existing in both Active and Inactive status. Also, Schedule Status of these engineering tasks is set as 'Active' in the maintenance programs. As a result of this, the yet-to-be complied tasks retrieved in the **Initialize Maint. Prog. & Update Compliance (IMPUC)** screen of **Compliance Tacking & Control** includes the engineering tasks pertaining to Inactive aircraft also increasing the count of not-complied tasks. Maintenance Planners and regulatory agencies could misread such data, since engineering tasks pertaining to Inactive aircraft do not become due for compliance till the aircraft becomes 'Active' leading to critical observations. To prevent these misconceptions, it would be appropriate to retrieve only those engineering tasks yet-to-be complied against Active aircraft in the **IMPUC** screen.

### Change Details

To facilitate retrieval of engineering tasks pending compliance only against Active aircraft based on user discretion, a new process parameter has been created under the entity type "Eng. Doc. Type" and entity '--All Eng. Doc--' combination in the **Define Process Parameters** activity of **Common Master**. The process parameter "Update Eng.Task's schedule status as Inactive in maintenance program for inactive Aircrafts on release of Eng.Doc.?" determines the schedule status of the engineering tasks in maintenance programs of Inactive aircraft.

If the process parameter 'Engineering Document Revision Policy' is set as 'Revision Mandatory', upon release of the engineering document in the **Release Engineering Document** screen by clicking on the **Release Eng. Doc.** button, the schedule status of the tasks gets updated in the maintenance program of the Inactive aircraft based on the newly added process parameter "Update Eng.Task's schedule status as Inactive in maintenance program for inactive Aircrafts on release of Eng.Doc.?" as explained in the below table.

Process Parameter Value	Impact on maintenance programs of Inactive aircraft on release of engineering document
0/No	The schedule status of the engineering tasks in the maintenance programs of Inactive aircraft is set as 'Active'.
1/Yes	The schedule status of the engineering tasks in the maintenance programs of Inactive aircraft is set as 'Inactive'.

Similarly, if the process parameter 'Engineering Document Revision Policy' is set as 'As per Revision Rules' and 'Mandate Revision on Addition of Effectivity?' is set as 'No' and if the user adds a new Inactive aircraft in the **Effectivity** tab of the **Manage Engineering Document** screen by clicking on the **Save** button, the schedule status of the tasks gets updated into the maintenance program of the Inactive aircraft based on the newly added process parameter "Update Eng.Task's schedule status as Inactive in maintenance program for inactive Aircrafts on release of Eng.Doc.?".

**Exhibit 1: The Set Process Parameters screen of the Define Process Parameters activity in Common Master**

**Set Process Parameters**

Entity Type: Eng. Doc Type  
Record Status: Active  
Entity: --All Eng. Doc--  
Process Parameters Defined? Yes

#	Process Parameter	Permitted Values	Value	Status	Error Message
1	Update Eng.Task's schedule status as Inactive in maintenance program for inactive Aircrafts on release of Eng.Doc.?	Enter "0" for "No", "1" for "Yes".	1	Defined	
2	Tree Sorting basis in Manage Engineering Document	Enter "0" for 'Eng. Doc. #', "1" for 'Ascending order of Effectivity from Date', "2"	2	Defined	
3	Allow MCR creation with zeroth revision?	Enter "0" for 'No', "1" for 'Yes'	0	Defined	
4	Update Next Sch. Date in maintenance program on release of future dated Eng. Doc.?	Enter "0" for 'No', "1" for 'Yes'	0	Defined	
5	Allow initialized schedules update from schedules tab?	Enter "0" for 'No', "1" for 'Yes'	1	Defined	
6	Allow definition of Aircraft Model # for Component / Engine applicable MCR?			Defined	
7					

Set Process Parameters

New process parameter to govern the schedule status of engineering tasks in maintenance programs of Inactive aircraft.



Exhibit 2: The Effectivity tab of Manage Engineering Document screen of Engineering Document

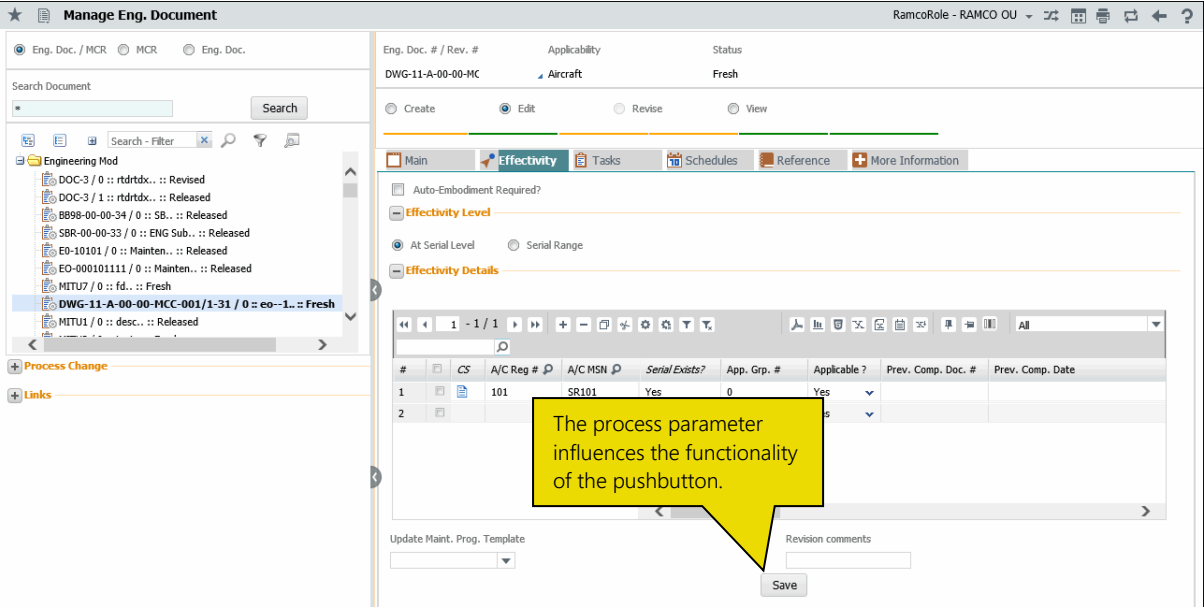
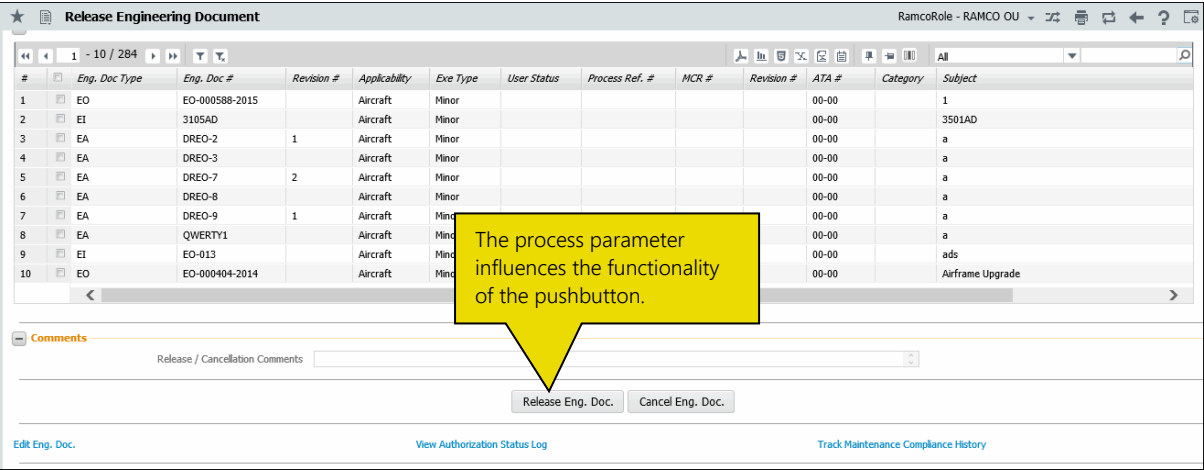


Exhibit 3: The Release Engineering Document screen of Engineering Document



## WHAT'S NEW IN AIRCRAFT MAINTENANCE PLANNING?

### Pre-planning and Associate NST

Reference: AHBG-17338

#### Background

During aircraft maintenance planning, non-routine/non-standard tasks may be required to be added to the aircraft based on customer priorities. Details including Plan Start Date, Priority & Comments need to be recorded for such tasks, generally called as Adhoc tasks. Further, these Adhoc tasks need to be associated with multiple aircraft. They may also have to be deleted, if not required by the aircraft.

#### Change Details

An **Aircraft** icon will be provided on the click of which the Flight routing details for the aircraft on the basis of the given search criteria is displayed to the users.

The users will be provided with the **Add Task** icon to create and add Adhoc / non-routine tasks to an aircraft. The selected aircraft from the **Review Fleet Maintenance Plan** screen will be listed in the **Add Task** pop-up to facilitate bulk addition of tasks. The users can record **Plan Start/End Date-Time**, **Priority** and **Planning Comments** for the tasks. These Adhoc tasks associated with the aircraft can later be retrieved, and scheduled for execution.

A history of **Planning comments** will be maintained using the **Notes** feature.

The following process parameters have been added under the entity type "Maintenance Planning" and entity "Aircraft Maintenance Planning" in the **Define Process Entities** activity in Common Master to leverage the behavior and functioning of the **Review Fleet Maintenance Plan** screen and influence task creation.

However, the users will be allowed to create a non-standard task only if "Generate Non-Standard Tasks" is enabled in the Set Options activity of Maintenance Task. These can also be deleted, if need be.

Process Parameter	Value	Impact in the Review Aircraft Maintenance Plan screen
Default Search tab on launch of Review Fleet Maintenance Plan screen	1 (Default)	The Basic Search tab will be defaulted on launch of the screen
	2	The Advanced Search tab will be defaulted on launch of the screen
Process Parameter	Value	Impact in the Review Aircraft Maintenance Plan screen
Aircraft Maintenance Planning?	1 (Default)	Pre-planning and Planning: All Gantts and toolbars

		will be available to users
	2	Only Pre-planning: The Job Details Gantt will be available to users
Display Flight routing information in Visit Planning?	0 (Default)	<p>Search By filter is mandatory</p> <ul style="list-style-type: none"> <li>Duration for the Routing search will not be defaulted from Define Process Entities in Common Master.</li> <li>Aircraft icon will not be displayed</li> </ul>
	1	<p>Station or Search By is mandatory</p> <ul style="list-style-type: none"> <li>Duration for Routing search will be defaulted from Define Process Entities in Common Master.</li> <li>Aircraft icon to be displayed and on clicking the icon, the pop-up for Flight Routing Details will appear</li> </ul>
Default ATA # for NST created from the Review Fleet Maintenance Plan screen	Enter valid ATA # defined in Aircraft	
Mandate Task Category for NST created from the Review Fleet Maintenance Plan screen	0	Task Category mandatory for the NST created from Review Fleet Maintenance Plan screen
	1	Task Category not mandatory for the NST created from Review Fleet Maintenance Plan screen
Default state for the checkboxes "Maint. Event, Overdue, Flight Schedule, As Required"	0	Check boxes will be unselected on launch of the Review Fleet Maintenance Plan screen
	1	Check boxes will be selected on launch of the Review Fleet Maintenance Plan screen

Exhibit 1: The Review Fleet Maintenance Plan screen

★ Review Fleet Maintenance Plan Ramco Role - RAMCO OU

Basic Search Advanced Search

**Plan Details**

Line Planning Visit Planning Planning Status

**Arrival Details**

Station: ONAL AIRPORT Work Center # From / To Date & Time: 30-10-2017 09: Duration (Hrs): 100.00 Flight # Sort By: Arrival Time Reference Time Zone: CHN

**Aircraft Details**

Primary Search by\*: A/C Reg # JS-1819 Addl. Search 1: Customer Addl. Search 2: Customer

**Maintenance Details**

Maintenance Item\* Part #\* Deferral Type\* From / To Date: 30-10-2017 04-11-2017 Rem. Value <= \* Days

☒ Maint. Event ☒ Overdue ☒ Flight Schedule ☒ As Required

Get Details

**Job Details**

Aircraft Reg # / Work Unit # Rem. Time Incoming Flight Details Outgoing Flight Details Package Status Sch. Itm Driv

JS-1819	SSM / 11.00FH-3.00FC	30-10-2017 11:00:00 PM : EA-Flight 7 / 1			26
NP	NST-005608-2017:occ oooooo				
NP	NST-005609-2017:occ 2				
NP	NCR-001112-2017:test				
NP	NCR-001114-2017:test				
NP	NCR-001121-2017:test				
NP	NCR-001122-2017:sfadfa				
NP	NCR-001124-2017:test				
NP	NCR-001109-2017:test				
NP	NCR-001110-2017:b777				
A	WEEKLY CHECK-Weekly Check	(-522D 9H 56M ) /287.00FH			Planned
P	TRANSIT CHECK-3-50C-00-MPD	(-522D 9H 56M ) /11.00FH			Planned
P	VP-001256-2016/1-defect-1	(-519D 9H 56M ) /11.00FH			In-Progress

Pop-up screen appears on click of icon

Pop-up screen appears on click of icon

The default selection of these check boxes can be set using a process

## Aircraft Tail to Employee Assignment during shift planning

Reference: AHBG-15820

### Background

Certain Aircraft Maintenance scenarios require MSR/AME to be mapped to Aircraft Reg. # based on flight arrival time to facilitate maintenance subsequent to arrival/prior to the next flight. To ensure that the maintenance of aircraft is seamlessly executed, the arrival and departure times of the aircraft from Flight Schedule and the employee details from the work center-shift-employee mapping are taken into consideration to assign jobs to MSR/AME. Additional technicians and equipment, such as vehicles and phones may be necessary and hence assigned for an MSR. The employee certificate/license of the MSR/AME are also validated at the time of the commencement of assigned aircraft/package.

Typically, the Shift lead inquires Aircraft Routing details and shift times for a work center and then assigns packages or aircraft to the MSR available at the work center. The Shift lead may also assign more employees and equipment to the MSR required for execution of the job.

### Change Details

The **Manage Aircraft - Employee Assignment** activity under the **Aircraft Maintenance Planning** business component has been introduced to assign packages or flights to employees (identified as Primary Employee). The system also ensures that the employee # of the MSR/AME is valid and Active and the employee primary assignment status is 'Authorized' in the HRMS business component.

The users can search for the Scheduled Flight details (fetched from Aircraft Routing information) / Planned package and assignment details (fetched from Aircraft Maintenance Execution) based on search criteria. Additional references, such as technical equipment and car can also be assigned to a Primary employee. Additional employees can also be assigned to a flight /package in the new link page (Assign Additional Employees).

The employees available in a specific work center, shift and time can be retrieved and then assigned to a flight or package based on the arrival/departure of aircraft.

All dates and time including shift start and end dates & time, flight arrival and departure dates and time will be compliant with the local time zone of the concerned station/work center.

Exhibit 1: The Manage Aircraft – Employee Assignment screen

★ Manage Aircraft - Employee Assignment

Ramco Role - RAMCO OU

Assignment For

Work Center #/ Shift Code YYZ-210-00 shift 1

Assign by Flight

Station MAA

Time Zone IN

Search

From / To Date & Time 23-10-2017 08 23-10-2017 01

Display Option All Assigned Not Assigned

Search On A/C Model #

Search

Assignment Details

Search

#	AC Reg #	Arr. Flight #	Arr. From Station	Arr. Date/Time	GT (Mins)	Primary Emp. #	Emp. Name	Addl. Emp	Comments	Addl. Reference 1	Addl. Reference 2
1	J5-1819	J5A101	AIR	23-10-2017 12:00:00 PM	120	00041383	SENECHAL, DOMIN		comments 1	phone1	car1
2											

Assign

Unassign

Grant Workcenter Access Privileges for Users

Associate Employees

Click on the image to open the Assign Additional Employees pop-up screen.

Exhibit 2: The Assign Additional Employees screen

Assign Additional Employees

Assign Additional Employees

A/C Reg. # J5-1819

Arr. Flight # J5A101

Package #

#	Emp. #	Emp. Name
1	00000001	RAMCO, DMUSER
2		

Ok

## Packaging multiple instances of Task

Reference: AHBG-15055

### Background

Currently, the users can create multiple packages with an instance of the same task in **Aircraft Maintenance Planning**. However, the system allows for the release of a package with an instance of a task only if the previous instances of the same task have already been complied. However, in certain scenarios, (elaborated later in the document) it may become inevitable to package and release a task even when the previous instances of the task are due or not complied yet.

### Change Details

In order to facilitate the release of a package with a task ahead of packages comprising previous instances of the same task based on user discretion, a new process parameter 'Allow release of Package with a task whose previous instance(s) is not complied?' has been created under the entity type "Maintenance Planning" and entity "Aircraft Maint. Planning" combination in the **Define Process Parameters** activity of **Common Master**. The process parameter decides whether a package with a task whose previous instances have not been complied yet can be released.

Process Parameter Value	Impact on release of the package
1/Yes	Any instance of the packaged task can be released for execution regardless of the chronological order of the planned execution in 'Planned' status.
0/No	The user has to release the package for execution containing the earlier instance of the task first. Instances of the task must be complied with in the chronological order of planned execution.

#### Scenario:

- Service Check is due once every seven days: 1<sup>st</sup>, 8<sup>th</sup>, 15<sup>th</sup>, 22<sup>nd</sup> and 29<sup>th</sup> of each month on an aircraft.
- Major packages are planned in advance and one such major package comprises the 5<sup>th</sup> instance of Service Check that is due for compliance on 29<sup>th</sup> of the month.
- In such a situation, the major package cannot be released, if the compliance of the previous Service Check scheduled on 22<sup>nd</sup> or even earlier has not been complied. To ensure that such major checks well-planned in advance are released even when the earlier instances of the tasks are not yet complied, it was necessary that the condition on the compliance of the earlier instances of a task to release a package

with a later instance of the task be relaxed.

Exhibit 1: The Set Process Parameters screen of the Define Process Parameters activity in Common Master

**Set Process Parameters**

Entity Type: Maintenance Planning      Entity: Aircraft Maint. Planning  
Record Status: Active      Process Parameters Defined? Yes

#	Process Parameter	Permitted Values	Value	Status	Error Message
1	Display Block Task in "RED" colour when there is an Overdue Base Task?	Enter "0" for 'No', "1" for 'Yes'	1	Defined	
2	Allow release of Package with a task whose previous instance(s) is not complied?	Enter "0" for 'No', "1" for 'Yes'	0	Defined	

Set Process Parameters

Exhibit 2: The Review Fleet Maintenance Plan screen of Maintenance Planning

**Review Fleet Maintenance Plan**

Basic Search    Advanced Search

Plan Details: Line Planning    Visit Planning    Search by: A/C Reg #    trac2

Arrival Details: Station    From / To Date & Time: 8/31/2017 11:53:10    Duration(Hrs):    Maintenance Item:    From / To Date: 8/31/2017    3/19/2018

Get Details

Package Type:    Assign    Release

Job Details: Aircraft Reg # / Work Unit #

May 17    Jun 17

21 22 23 24 25 26 27 28 29 30 31 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

NP: TRAC2  
P: ARAH2sch: arah2sch  
P: tr11: tr11 desc  
P: dpr1: dpr1 desc  
NP: tr15: tr15 desc  
NP: dpr2: dpr2 desc  
NP: BIRD HIT: Bird Hit  
NP: dpr4: dpr4 desc  
NP: dpr10: dpr10 desc  
NP: TRAC2  
NP: TRAC2  
NP: TRAC2

Work Center #    From / To Date: 8/31/2017    3/19/2018    Search on    Ge

Package Details: Package #    Package Type

185-20  
185-25  
Work Center not available

27-Jun-2017    28-Jul-2017

00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Plan Jobs



## WHAT'S NEW IN MECHANIC ANYWHERE?

### Ability to add Open discrepancies in MechanicAnywhere

Reference: AHBG-16937

#### Background

The **Aircraft Maintenance Execution** business component in the **Ramco Aviation** desktop application allows user to add the Open (Under resolution) discrepancies to another package. This enables mechanics to work on the discrepancies, if they find the opportunity to work on them earlier than the scheduled date for the aircraft. Similar feature is required in the **Maint./Pilot Discrepancy** tab of the **E-Log** screen of **MechanicAnywhere** application as currently, the Open discrepancies cannot be added to another package.

#### Change Details

The **Add Deferred Discrepancies** popup in the **Maint. /Pilot Discrepancy** tab of the **E-Log** screen has been renamed as **Add Discrepancies**.

Now, the users can retrieve all the unresolved discrepancies of their choice and then allocate them to a package for execution.

The **Filter By** (first) drop-down list box has been added in the **Add Discrepancies** popup with the following values:

- Deferred
- Open

However, on launch of the **Add Discrepancies** pop up, the **Filter By** drop-down list box will display **Deferred** and the second drop-down list box ( **Advanced Filter 1**) will display the following values:

- Due By Days
- Overdue By Days
- Remaining FH
- Remaining FC
- Discrepancy #
- Description
- ATA #
- Discrepancy Type
- Discrepancy Category
- Deferral Type

On selection of **Open** in the **Filter By** drop-down list box, **Advanced Filter 1** will load the following values:

- Discrepancy #
- Exe. Doc #

- Discrepancy Type
- Discrepancy Description
- Discrepancy Category
- ATA #

The users can use the third drop-down list box (**Advanced Filter 2**) to select the value for the attribute selected in **Advanced Filter 1**

### Discrepancy Retrieval

To retrieve discrepancies from **Due List**, the users can select 'Deferred' from the **Filter By** drop-down list box.

Alternatively, discrepancies in the following statuses from packages created against the aircraft are retrieved, if

Open is selected in the first drop-down list box.

- Fresh
- Pending
- Under Resolution
- Pending Deferral
- Deferred

The users can select the check box for the discrepancies and then click the **Add** button to allocate the discrepancies to a package. These discrepancies assume the status of "Under Resolution" in the allocated package.

**Exhibit 1:** The **Maint./Pilot Discrepancy** tab of the **E-Log** screen

The screenshot displays the E-Log application interface on a mobile device. At the top, the status bar shows 'Airtel' and '2:05 PM' with a 73% battery level. The app header includes a back arrow, 'E-Log', and a title 'E-Log'. Below the header, a data row contains: Aircraft Reg# | Model (Js-101 | A320-211), Log Card # | Ref. # (VP-002857-2017), Station (AIR INDIA STATION), Date & Time (09/08/2017 08:33:07 AM), FH (593.50), FC (110.00), and a Status button labeled 'In-Progress'. A navigation bar below this contains tabs: 'Manage Package', 'Cabin Defect', 'Maint. Events & Task', 'Maint./Pilot Discrepancy' (which is selected and highlighted in blue), 'Fuel / Oil Uplift', and 'Preview and Acceptance'. Under the 'Maint./Pilot Discrepancy' tab, there are two buttons: '+ Record Discrepancy Write-up' and '+ Add Discrepancies 0', with the latter highlighted by a red rectangle. Below these buttons are three filters: 'Discrepancy' (with a dropdown arrow), 'Open 0', 'Closed 0', and 'Deferred 0'. The main content area is split into two panels. The left panel, titled 'Discrepancy', shows 'No Discrepancy Available'. The right panel, titled 'Discrepancy Details', shows 'No Discrepancy Details Available'.

Exhibit 2: The rechristened Add Discrepancies pop-up with Filter By as Deferred

The screenshot shows the E-Log application interface. At the top, the status bar indicates 2:30 PM and 82% battery. The header section displays flight details: Aircraft Reg# 6y-jmr, Model ACFT-ENGINE, Log Card # VP-002415-2016, Ref. # 11, Station Montreal, Date & Time 19/11/2016 10:32:08 PM, FH 12.10, FC 5.00, and Status In-Progress. The main navigation bar includes tabs for Manage Package, Cabin Defect, Maint. Events & Task, Maint./Pilot Discrepancy (selected), Fuel / Oil Uplift, and Preview and Acceptance. Below this, there are buttons for '+ Record Discrepancy Write-up' and '+ Add Deferred Discrepancies 1'. The 'Add Discrepancies' pop-up is open, showing a 'Filter By' dropdown set to 'Deferred' and a 'Due By Days' dropdown set to '3'. The pop-up also displays a table with one entry: 'testasd' with a checkbox, 'VP-002437-2016/1/MIREP', 'Deferred', '-9 FH', '-2 FC', and 'Over Due By 257 Days'. An 'Add' button is at the bottom of the pop-up.

Exhibit 3: The rechristened Add Discrepancies pop-up with Filter By as Open

The screenshot shows the E-Log application interface. At the top, the status bar indicates 2:30 PM and 82% battery. The header section displays flight details: Aircraft Reg# 6y-jmr, Model ACFT-ENGINE, Log Card # VP-002415-2016, Ref. # 11, Station Montreal, Date & Time 19/11/2016 10:32:08 PM, FH 12.10, FC 5.00, and Status In-Progress. The main navigation bar includes tabs for Manage Package, Cabin Defect, Maint. Events & Task, Maint./Pilot Discrepancy (selected), Fuel / Oil Uplift, and Preview and Acceptance. Below this, there are buttons for '+ Record Discrepancy Write-up' and '+ Add Deferred Discrepancies 1'. The 'Add Discrepancies' pop-up is open, showing a 'Filter By' dropdown set to 'Open' and a 'Discrepancy #' dropdown set to 'VP-002437-2016/1'. The pop-up also displays a table with one entry: 'testasd' with a checkbox, 'VP-002437-2016/1/MIREP', 'UnderResolution', and an 'Add' button at the bottom of the pop-up.

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