

# **RAMCO AVIATION SOLUTION**

## **ENHANCEMENT NOTIFICATION**

**Version 5.9.0**

**Maintenance**

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## WHAT'S NEW IN TIME TRACKING?

### Timebooking with Adaptive Cards in Outlook

Reference: APRP-1037

#### Background

A new framework to book time/start/stop a clock against any job i.e. task/discrepancy assigned to a mechanic or he/she has clocked on or booked time previously and an indirect time booking through Outlook desktop as well as in mobile application.

#### Change Details

##### Common Master

Below are the set of Process Parameters added for the feature to be customized as per the requirements.

The below sets of parameters are added under both Entity Type "Package Type" and Entity "--All Packages--" and Entity Type "Shop Work Order Type" and Entity "--All Work Order--" with the below permitted values.

S. No.	Parameter Description	Permitted Values
1	Consider Inprogress jobs against which user has entered Execution Comments / Corrective Actions as My Jobs?	Enter "0" for 'No' and "1" for 'Yes'
2	Consider Inprogress jobs against which user has clocked on as My Jobs?	Enter "0" for 'No' and "1" for 'Yes'
3	Consider Inprogress jobs against which user has booked time previously as My Jobs?	Enter "0" for 'No' and "1" for 'Yes'
4	Consider Planned/Inprogress jobs that are assigned to the user as My Jobs?"	Enter "0" for 'No' and "1" for 'Yes'

##### Timebooking Adaptive Card


A new smart pop-up like adaptive card with four tabs, My Jobs, Running, Manual and Review will enable to book and view the timesheet for the Mechanics (should be sent in email).

Refresh - On click of refresh icon in the Card, latest card will be fetched as a new email.

**My Jobs** - In My Jobs tab, based on the process parameter setting, the jobs will be displayed. Usually it will display all jobs that the user has clocked on (running) or booked time previously but is not completed yet and assigned jobs. This tab will render records in a grid/multiline like format with up to max 2 pages. In a page, max of 5 records will display. In My Jobs Multiline, first column will display the job type i.e., Task/Discrepancy. If the job is task, icon



is displayed.

If the job is discrepancy, icon  is displayed

The container of the card will display the task or discrepancy number concatenated with Aircraft Reg. #/Component # based on the Package/Work Order in which the task/discrepancy belongs to. Below that, description of that task or discrepancy, after that package #/work order # in which the task or discrepancy belongs

to in the left and work center # in the right. In addition to this we have an option to start/stop/manual book time for a job with the pushbuttons. This manual pushbutton will enable the user to book time manually against a job. And will show the job running status against each job.

**Running** - The Running tab will show all Tasks/Discrepancies for which clock was running at that time when the card was rendered. This tab will render records in a grid/multiline like format with up to max 2 pages. In a page, max of 5 records will display. All other display options are same as My Jobs tab.

**Manual** - The manual tab is a free form entry page where the user can book time for any task/work item as long as he can type it in and click the book time or start clock button. In Manual tab, first row has a series of radio buttons captioned as "Booking Type" with buttons "AME", "SWO", Indirect" and "Others" with one UI drop-down control. This dropdown will be enabled only if user selects 'Others' in the booking type radio button. Use the UI drop-down list box to select the booking type. The system lists all the active booking types as defined in the **Manage Time Booking Types** activity of the **Time Tracker** business component except the following: "AME","SWO", "Indirect".

1. If user selects AME or SWO in booking type, second row will have two editable controls as "Exe. Doc. #" in the left and "Task/Disc. #" in the right
2. If user selects Indirect in booking type, second row will have only Activity Code as a drop-down in the right side. This drop-down will load valid activity code in "Active" status as defined in the **Manage Activities** activity of the **Time Management Master** business component. The activity code selected in this field is mapped to the Booking Type selected.
3. If user selects 'Others', the Booking Type UI combo will be enabled and can select an active booking type which will enable two drop-down controls "Booking Code" in the left side and "Activity Code" in the right side. Booking Code will load valid booking code in "Active" status as defined in the **Manage Booking Code** activity of the **Time Management Master** business component. The booking code entered in this field is mapped to the "Booking Type" selected.
4. In addition to that, Start Date & Time, End Date & Time, Attendance Type and Time Classification will load as defined in the **Time Tracker** business component. And Comments to be entered and pushbutton to Start Clock or Book Time Manually for a job.

**Review** – The Review tab will display all jobs that the user has booked time today (i.e., the day mail triggered). Here also the container is same as My Jobs tab, will show the Job details with Edit option for Fresh records. User can edit the time booked for the fresh record by clicking on the edit icon. It will enable as Manual book time page to edit the records.

**BOT Mail Id** - Email ID for the adaptive card: "ramcoassistant@<Company Domain>". Company domain can be ramco, etc. When an email is received by ramcoassistant from an email address, it will identify the login user by recognizing the email recorded in **Record Contact Information** screen of HRMS components. And also consider the validity of User-Employee mapping in View User-Employee mapping screen. If the validity of user-employee mapping is not up to date or user/employee is inactive, it will reply back to the mail with the subject "Employee Time Sheet Booking" and the Body should say "Sorry, User-Employee mapping is not up to date. Please Check" or "Sorry, User/Employee is Inactive. Please Check" respectively.

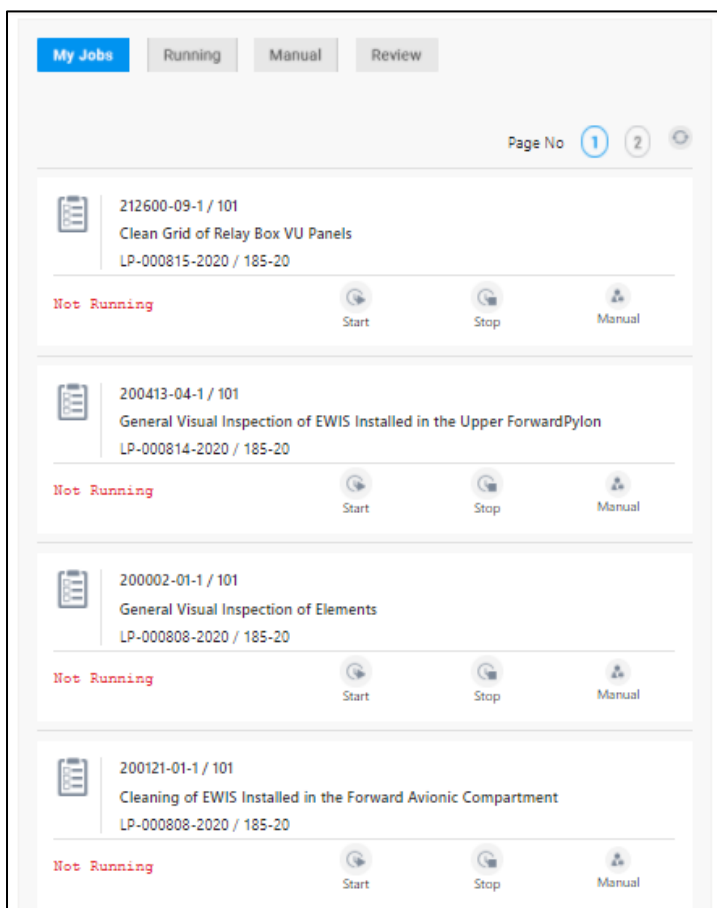
**Keywords** - When an email is received to ramcoassistant from an employee's mail, the adaptive cards for Time

Sheet should be sent to employee's mail only if the subject given in the mail is anyone of the following keywords:

1. Time Booking
2. Book Time
3. My Jobs
4. Running Clocks
5. Manual Booking
6. In-direct Booking
7. Review Booking
8. View Time
9. Running Jobs

**API and Design** – We have used the API service to call My Jobs, Running and Review Jobs for a user in the adaptive card. And it is designed to render in both desktop as well as in mobile application.

**Exhibit 1:** Identifies the **My Jobs** tab in **Adaptive Card Timebooking**



We can differentiate the job either task/discrepancy by the icon against each job. It will display the job status whether running or not running.

Against each job, it will clearly indicate the task/discrepancy #, associated aircraft/component #, task/discrepancy description, package/work order # and work center.

Against each job, there is a provision to start/stop a clock or book time manually against each job

**Exhibit 2:** Identifies the **Running** tab in Adaptive Card Timebooking

My Jobs **Running** Manual Review

Page No 1 2

CDP-000428-2020 / 185-20  
Dp check1  
LP-000743-2020 / Js-101

Running Start Stop Manual

LC-000127-2020/1 / 185-20  
Dp-1  
LC-000127-2020 / JS-07

Running Start Stop Manual

Note : Clock status is shown as of 10/09/2020 13:37:15. Click on Refresh to get the latest.

Running tab, will display all the jobs which are running at the time of card rendered

**Exhibit 3:** Identifies the **Manual** button click in Adaptive Card Timebooking

212600-09-1 / 101  
Clean Grid of Relay Box VU Panels  
LP-000815-2020 / 185-20

Not Running Start Stop Manual

Start  
Select a date 00 00

End  
Select a date 00 00

Att Type  
Normal

Time Class  
Select an option

Comment  
Enter text here

Book Time Cancel

**Exhibit 4:** Identifies the **Manual** tab in Adaptive Card Timebooking

The screenshot shows the 'Manual' tab selected in the top navigation bar. Below the tabs, there are four radio buttons for 'Booking Type': AME (selected), Indirect, SWO, and Others. Below these are four text input fields: 'Exe. Doc. #', 'Task/Disc. #', 'Start' (with a date picker and two dropdowns for time), and 'End' (with a date picker and two dropdowns for time). There are also two dropdown menus for 'Att Type' (set to 'Normal') and 'Time Class' (set to 'Select an option'). At the bottom, there is a 'Comment' text area and two buttons: 'Start Clock' and 'Book Time'.

Manual tab, will have the provision to choose the booking type, based on it we can enter booking code or activity code and book time

User chooses booking type as Indirect, will disable the exce.doc. # and task/disc # control and enable Activity code to be entered.

User selects Booking Type as Others will enable another dropdown to show the user defined booking types.

**Exhibit 5:** Identifies the **Review** tab in Adaptive Card Timebooking

The screenshot shows the 'Review' tab selected in the top navigation bar. Below the tabs, there is a section titled 'Today's Booking' with a 'Go to the page :-' label and two circular buttons labeled '1' and '2'. Below this is a card showing a booking entry: 'LP-000716-2020/1 / 101' with a green dot, '08:15 to 08:16' in red, and 'Bulb' below it. There is an 'Edit' button with a pencil icon. Below the card, there are two status indicators: 'Fresh' (blue dot) and 'Authorized' (green dot). At the bottom, there is a note: 'Note : Clock status is shown as of 08/07/2020 11:01:18. Click on Refresh to get the latest.'

Review tab, will fetch only the jobs for which I have booked time for today

## WHAT'S NEW IN WORK CENTER?

### Ability to define Work Center Certificate Effectivity and validate if not Effective for Issue CoM & Package release

Reference: APRP-222

#### Background

The internal quality teams do look into the approval list for the Work Centers in terms of the customers (Maint. Operators), to whom they can provide service, and the 'Part models'/ 'Equipment category' on which they are authorized to work upon. The same information will be used in case the regulatory authority performs the audit. This information is currently being maintained in different document formats across multiple geographic locations. Hence, a single format, which could help our customers view the approval list provided for Work Centers, along with the information specified above, is needed.

#### Change Details

##### Common Master

A new process parameter "Validate Work Center-Part-Certificate effectivity during Issue CoM?" is added under the Entity Type 'Shop Work Order Type and Entity 'All user defined Work Order Type' in the **Set Process Parameters** screen of the **Define Process Entities** activity, with the following permitted values:

- 0 (No) Existing Behavior - System will not check the mapping of Certificate Type, Certifying Authority combination to the 'Part #/Part Group'/Part Model' of Main Core Part # and Associated Core for the Primary Workcenter of the Shop Work Order in the **Work Center Certification Effectivity** screen.
- 1 (Yes) - System will check the mapping of Certificate Type, Certifying Authority combination to the 'Part #/Part Group'/Part Model' of Main Core Part # and Associated Core for the Primary Workcenter of the Shop Work Order in the **Work Center Certification Effectivity** screen.

A new process parameter ""Validate Work Center - Aircraft effectivity during Package creation?" is added under the Entity Type 'Package Type and Entity 'All user defined package types including Log Card" in the **Set Process Parameters** screen of the **Define Process Entities** activity with the following permitted values:

- 0 (No) Existing Behavior - System will not check the mapping of Aircraft Model #- Maint. Operator #' for the respective Aircraft Reg. # with the details in the **Edit Work Center Certification Effectivity** screen for the Work Center #
- 1 (Yes) - System will check the mapping of Aircraft Model #- Maint. Operator #' for the respective Aircraft Reg. # with the details in the **Edit Work Center Certification Effectivity** screen for the Work Center #

##### 'Edit Work Center Certification Effectivity

New columns Certificate #, Certificate Title, Certifying Authority, Certificate Type, Certificate Applicability, Maint. Operator #, Operator Name, Part Model, Equipment Category are added in the **Edit Work Center Certification Effectivity** screen.

User can define the Maint. Operator #, Part Model and Equipment Category for a Certificate # - Certifying Authority- Certificate Type combination.

**Exhibit 1:** Identifies changes in **Edit Work Center Certification Effectivity** screen

**Work Center Details**

Work Center # 185-20  
Work Center Description PLUMBING/FABRICATION  
Work Center Type Shop  
Component Effectivity Basis Part No

**Certification Effectivity Details**

Certificate Details --ALL RECORDS--  
Get Details

#	Part # / Grou	Associated Part Applicability	Maintenance Type Effectivity	Maint. Operator #	Operator Name	Part Model	Equipment Category	Description
1			All					
2	123		All					1234
3	123		All					1234
4				12345	Testing			A310
5	0-100-11		All					3" DIA 0-100PSI GAUGE
6				00-00	AIR	OIL U		
7				00-00	AIR	OIL U		
8			All					

**Capability Update Details**

Capability List Updation Required

Work Center --> Associate Work Center Attributes | Last Login on 2020/Oct/19 at 02:07:44 | (Server: 1.783 /Client: 2.514) | No error(s) | 58 Minute(s) | 3:10 AM

New columns- Certificate #, Certificate Title, Certifying Authority, Certificate Type, Certificate Applicability, Maint. Operator #, Operator Name, Part Model, Equipment Category, to be added

## WHAT'S NEW IN AIRCRAFT MAINTENANCE EXECUTION AND AIRCRAFT EXECUTION HUB?

### Ability to disable compliance for Discrepancy deferrals

Reference: APRP-963

#### Background

In Record Maintenance Execution Details and Work Reporting Hub, when a discrepancy is deferred, the associated background task of the discrepancy goes to Completed status and compliance is updated for this discrepancy. So this discrepancy shows up in the **Track Maintenance and Compliance History** screen.

In some deferral scenarios, deferring a discrepancy means that work will be done later, therefore update of compliance should not happen for the same. Hence, a new provision is required in order to disable the update of Compliance Date & Time whenever a discrepancy is deferred.

#### Change Details

- To facilitate compliance update when discrepancy is deferred, the following change has been done in Ramco Aviation:

New process parameter 'Compliance update required when Discrepancy is Deferred?' introduced under the Entity type 'Package Type' and the Entity 'All user defined package types' including Logcard in the **Define Process Entities** activity of **Common Master** business component.

Process Parameter	Value	Impact in Record Maintenance Execution Details and Work Reporting Hub
Compliance update required when Discrepancy is Deferred?	"0" for 'Not Required'	System will not update the Compliance Date & Time when a Discrepancy is deferred. Since compliance is not updated, this discrepancy will not fetch in 'Track Maintenance Compliance History' screen as well.
Compliance update required when Discrepancy is Deferred?	"1" for 'Required'	System will update the Compliance Date & Time when a Discrepancy is deferred. Since compliance is updated, this discrepancy will fetch in 'Track Maintenance Compliance History' screen as well.

- The above behavior is applicable whenever discrepancy is deferred from the following screens/popups:-
  - Work Reporting Hub – Discrepancy Tab multiline
  - Work Reporting Hub - Discrepancy Actions popup
  - Record Maintenance Execution Details – Discrepancies Tab



## Exhibit 1: Identifies the changes in Work Reporting Hub

The screenshot shows the 'Aircraft Work Reporting Hub' interface. The top navigation bar includes 'Aircraft/Shop Work Management > Aircraft Execution Hub > Aircraft Work Reporting Hub'. The main header displays 'Aircraft Work Reporting Hub' and 'RAMCOU-Ramco Role'. Below this, there are filters for 'I want to' (Create, Work), 'on' (Aircraft Maint. Exe. #), and 'VP018062-2020'. The 'Reporting Date Time' is set to '2020-03-19 12:07:36 PM'. The 'FH' is 67.38, 'HRS' is 96.00, and 'CYC' is 96.00. The 'Package Type' is 'Line Package', 'Aircraft Reg #' is 'J5-101', and 'Work Center #' is 'YYZ-165-00'. The 'Status' is 'In-Progress'. There are buttons for 'Complete', 'Due List', 'Quick Links', 'Maint. Events', and 'Print'.

The 'Document Info' section shows a list of documents, with 'VP018062-2020' selected. The 'Task' section shows a list of tasks, with 'Discrepancy' selected. The 'Discrepancy' table has columns: #, Error, WS, Ab, Type, Log Item #, SS, ATA #, Description, Corrective Action, Discrepancy #, ED, Action, and Status. The table contains two rows of data:

#	Error	WS	Ab	Type	Log Item #	SS	ATA #	Description	Corrective Action	Discrepancy #	ED	Action	Status
1				MIREP	VP018062-2020/1		00-00	DP-2	jkdhjk	CDP-055149-2020		Defer	UnderResolu
2				MIREP									

A callout box points to the 'Defer' action in the table, stating: 'Based on set option, if the discrepancy status is changed to 'Deferred', then the Associated background task will still be in 'Completed' status but Compliance Date & Time will not be updated'.

## Exhibit 2: Identifies the changes in Record Aircraft Maintenance Execution Details

The screenshot shows the 'Record Aircraft Maintenance Execution Details' interface. The top navigation bar includes 'Aircraft Maintenance > Aircraft Maintenance Execution > Record Aircraft Maintenance Execution Details'. The main header displays 'Record Aircraft Maintenance Execution Details'. Below this, there are filters for 'Exe. Details', 'Aircraft Reg #' (J5-101), 'Station' (Montreal), 'Work Center' (YUL-100-00), 'Date & Time' (2020-03-19 12:07:36 PM), 'Flt. Hrs' (1.00), and 'Flt. Cycles' (1). The 'Open Items' section shows a list of items, with 'Discrepancies (1)' selected. The 'Search Options' section shows checkboxes for 'Log Cards', 'Minor', and 'Major', and a 'Search by' dropdown. The 'Execution Record Details' section shows a table with columns: Exe. Ref. #, Log card, Status, HS, ES, NR, Category, Ref. Time Zone, and Package Desc. The table contains one row of data:

Exe. Ref. #	Log card	Status	HS	ES	NR	Category	Ref. Time Zone	Package Desc.
LC-026078-2020		In-Progress				1-Repair	ET	

A callout box points to the 'Defer' action in the table, stating: 'Based on set option, if the discrepancy status is changed to 'Deferred', then the Associated background task will still be in 'Completed' status but Compliance Date & Time will not be updated'.

## Ability to record multiple oil uplifts against a single Exe.Ref.Doc.#

Reference: APRP-978

### Background

Multiple oil uplifts cannot be recorded against an Exe.Ref.Doc.# through the Record Fuel / Oil log link in the Record Aircraft Maintenance Execution Details screen.

### Change Details

#### Record Aircraft Maintenance Execution Details

1. If Fuel/Oil Log # already exists for a Package # and user launches the **Report Fuel/Oil Log** link from **Record Aircraft Maintenance Execution Details** screen then on launch of **Record Fuel / Oil Log** screen,
  - It will not default the Fuel/Oil Log # and its details created previously for Package #.
  - Defaults the Reference Document Type combo with Execution Ref #, Reference Doc. # control with corresponding Package # and Aircraft Reg # with the A/C Reg # of the respective Package # in 'Fuel/Oil Log Details' section along with corresponding Work Center #, Station and Reference Time Zone in Execution Document Details section (associated to the Package #).

#### Aircraft Work Reporting Hub

1. If Fuel/Oil Log # already exists for a Package # and user launches the **Report Fuel/Oil Log** link from **Aircraft Work Reporting Hub** screen then on launch of 'Record Fuel / Oil Log' screen,
  - It will not default the Fuel/Oil Log # and its details created previously for Package #.
  - Defaults the Reference Document Type combo with Execution Ref #, Reference Doc. # control with corresponding Package # and Aircraft Reg # with the A/C Reg # of the respective Package # in 'Fuel/Oil Log Details' section along with corresponding Work Center #, Station and Reference Time Zone in Execution Document Details section (associated to the Package #).
2. A new Link **Update Fuel/Oil Log** is added in the Quick Links pop up of 'Doc Info/Strip' section in **Work Reporting Hub** screen. It will launch the **Select Fuel/Oil Record** screen of **Update Fuel/Oil Log** activity.

Exhibit 1: Identifies the Update Fuel / Oil Log link in Aircraft Work Reporting Hub

The screenshot displays the 'Aircraft Work Reporting Hub' interface. The top navigation bar shows the path: Aircraft/Shop Work Management > Aircraft Execution Hub > Aircraft Work Reporting Hub. The main header includes fields for 'LP-000822-2020', 'Package Type', 'Aircraft Reg. #', and 'Work Center #'. A 'Complete' button is visible. Below the header, there is a 'Document Info' section and a 'Task Discrepancy' table. A yellow callout box labeled 'New link added' points to a 'Quick Links' menu. The menu contains several options, with 'Update Fuel / Oil Log' highlighted in red.

**Quick Links Menu:**

- Create Engg. Service Req.
- Report Fuel / Oil Log
- Upload Documents
- Edit References
- View Aircraft Maintenance Log
- View Associated Doc. Attachments
- View Engg. Advice Note
- Time Tracking
- Work Monitoring & Control
- Update Fuel / Oil Log**

Exhibit 2: Identifies the Select Fuel / Oil Record screen of Update Fuel / Oil Log activity

The screenshot displays the 'Select Fuel / Oil Record' screen. The top navigation bar shows the path: Flight Operations > Flight Log > Select Fuel / Oil Record. The main header includes fields for 'Fuel / Oil Log #', 'Aircraft Reg. #', 'From Date', 'To Date', 'Work Center #', 'Ref. Document Type', 'Ref. Document #', and 'Log #'. A 'Search' button is located below the search criteria. The 'Search Results' section shows a table with columns: #, Fuel / Oil Log #, Aircraft Reg. #, Uplift Date & Time, Ref. Document Type, Ref. Document #, Work Center #, and Station. The table currently displays 'Found no rows to display!!!'.

**Search Criteria:**

- Fuel / Oil Log #
- From Date
- Work Center #
- Ref. Document Type
- Flight & Leg #
- Aircraft Reg. #
- To Date
- Station
- Ref. Document #
- Log #

**Search Results Table:**

#	Fuel / Oil Log #	Aircraft Reg. #	Uplift Date & Time	Ref. Document Type	Ref. Document #	Work Center #	Station
Found no rows to display!!!							

## Ability to Defer a Task with Sign-Off

Reference: APRP-1028

### Background

Tasks are able to be deferred in pending sign-off status. Hence, the ability to defer a task with sign-off is required.

### Change Details

#### Common Master

A new process parameter 'Mandate Sign Off during Task Deferral?' is added under the Entity Type 'Package Type' and Entity 'All user defined package type including Log Card' in the **Set Process Parameters** screen of the **Define Process Entities** activity with the following permitted values:

- 0 (No) Existing Behavior – System will not mandate sign off during task deferral
- 1 (Yes) – System will mandate sign off during task deferral.

#### Record Aircraft Maintenance Execution Details

If the process parameter "Mandate Sign Off during Task Deferral?" is set as "1" (Yes) and if the user performs Deferral of a Task by selecting Execution Status as "Deferred" for a planned task and the Sign-Off status for a task is Pending Inspector or Pending Inspector and Mechanic, on save will validate the user 'Task cannot be deferred as it is pending for sign off'.

#### Aircraft Work Reporting Hub

If the process parameter "Mandate Sign Off during Task Deferral?" is set as "1" (Yes) and if the user performs Deferral of a Task by selecting Status as "Deferred" for a planned task and the Sign-Off status for a task is Pending Inspector or Pending Inspector and Mechanic, on save will validate the user 'Task cannot be deferred as it is pending for sign off'.

Exhibit 1: Identifies the Execution and Sign-Off status in Record Aircraft Maintenance Execution Details screen

Record Aircraft Maintenance Execution Details

Exe. Details Aircraft Reg # js-1819 Go Station Trenton Work Center 185-20 Date & Time Flt. Hrs 11.00 Flt. Cycles 0

Open Items (69) Discrepancies (0) Work Information (1) Component Replacement (0) Material Request (0)

Search Options: Log Cards Minor Major Search by --Search by-- Search For Go

Execution Record Details

Exe. Ref. # Line Pack LP-000650-2020 Status Planned HS ES NR Category 1-Repair Ref. Time Zone

Log # Orig. Work Center 185-20 Maint. Event Package Desc.

Work Information

Task # - Tracking # - Seq. # 1 1 1

Execution Status Deferred

Sign-Off Status Pending Mech&Insp

ATA # 00-00 Repair Classification Job Type Aircraft

Task Description CR NST

Execution Comments

Exhibit 2: Identifies the Execution and Sign-Off status in Aircraft Work Reporting Hub screen

Aircraft/Shop Work Management > Aircraft Execution Hub > Aircraft Work Reporting Hub

I want to Create Work on Aircraft Maint. Exe. # LP-000650-2020 Reporting Date Time FH 11.00 HRS FC 0 CYC

LP-000650-2020 Planned Package Type Line Package Aircraft Reg # js-1819 Work Center # 185-20 Cancel Due List Quick Links Maint. Events Print

Document Info

Task Discrepancy

1 ALL 1 Planned 0 In-Progress 0 Completed 0 Other View: Simple Detail

#	Error	HS	ES	NR	ATA #	Description	Status	Sign Off Status	Add New Execution Comment	Previous Execution Comment	Source Task/Discrepancy	Source
1					00-00	CR NST	Deferred	Pending Mech&Insp				

Task and Sign-Off Status are highlighted

Start Clock Stop Clock Reset Save Complete Report Discrep. Task Action Hold Release

Request Part Change Part Sign Off Subtasks Quick Links

## WHAT'S NEW IN AIRCRAFT MAINTENANCE EXECUTION?

### Ability to remove part requirements on shortclosure of Material Requests

Reference: APRP-964

#### Background

In **Record Maintenance Execution Details**, when a Material Request (MR) is being short closed, system still retains the requested parts as part requirements in order to aid the users to raise the same MR if required later. If a new Part Requirement is raised again for the same parts, system will identify existing part requirements of the same part and merge it so that there exists only one Part Requirement for a part at any given time for a Task.

Sometimes users are not aware about the pending parts requirements that are available when a MR is short closed. So when they try to raise a new MR for the same part, multiplication of parts in a MR occurs. This has to be limited and it should be ensured that either user chooses to raise MR from the pending part requirements or raise a unique MR for the same part with the requested quantities alone.

#### Change Details

- To facilitate show/hide of pending part requirements on short closure of a Material Request, the following process parameter has been added in the **Define Process Entities** activity of the **Common Master** business component.

New process parameter 'Show pending part requirements for short closed Material Request?' has been introduced under the Entity type 'Package Type' and the Entity 'All user defined package types' including Logcard in the **Define Process Entities** activity.

Process Parameter	Value	Impact in Record Maintenance Execution Details and Work Reporting Hub
Show pending part requirements for short closed Material Request?	"0" for 'No'	System will cancel the part requirement of the same part/quantity combination that is available against the Task/Discrepancy in the package and show no pending request record for this short closed MR part.
Show pending part requirements for short closed Material Request?	"1" for 'Yes'	System will retain the part/quantity combination that is available against the Task/Discrepancy in the package as pending request record.

Exhibit 1: Identifies the changes in Record Aircraft Maintenance Execution Details

Record Aircraft Maintenance Execution Details

Exe. Details Aircraft Reg # js-101 Go Station Montreal Work Center YUL-100-00 Date & Time 2020-03-19 12:07:36 PM Flt. Hrs 1.00 Flt. Cycles 1

Open Items (242) Discrepancies (0) Work Information (1) Component Replacement (2) Material Request (4)

Search Options: Log Cards Minor Major Search by --Search by-- Search For Go

Search - Filter

- LC-026078-2020
- NST-044774-2020
- New Request
- Request Generated
- Request Pending
- n 1 :: 1.00 :: 1.00
- 0-001-368-016:358

Execution Record Details

Exe. Ref. # Log card LC-026078-2020 Status In-Progress HS ES NR Category 1-Repair Ref. Time Zone

Log # Orig. Work Center YUL-100-00 Maint.Event Package Desc.

Work Information

Execution Status In-Progress Sign-Off Status Not Required HS ES NR

MR Status Short Closed MR Priority Normal Requirement Type Normal

Part Description REPAIRARI F CAT3 STARTER UOM FA New Part # No

0-001-368-016:358

Based on set option, on short closure of a MR, no record to be shown under 'Request Pending' tree folder for the parts in the short closed MR under the respective task/ discrepancy

Last Login on 2020-03-19 at 12:00:36 PM 59 Minute(s) 12:15 PM

## Ability to default and set sign off requirement for Discrepancies without corrective action in AME

Reference: APRP-975

### Background

In **Record Maintenance Execution Details**, discrepancy can be recorded even without entering corrective action. Currently, sign off requirements for a discrepancy is identified only if corrective action is entered. Mechanics need to identify the sign off requirements while recording discrepancy even before entering corrective action.

### Change Details

- Identification of sign off requirements even without entering corrective actions is achieved through an existing process parameter 'Allow Identification of Sign Off Requirement without Corrective Action for Discrepancies?' available under the Entity type 'Package Type' and the Entity 'All user defined package types' including Logcard in the **Define Process Entities** activity of the **Common Master** business component.
- Sign Off requirement will be identified and enabled at discrepancy level based on the above set option and the sign off requirements defined for the set option 'Default Sign Off Requirements for Non-Routines?'. On click of the 'New' icon, the check boxes for the respective sign off requirements will be auto checked.



#### *Note:*

- The defaulted sign off requirements will not be shown in 'Sign Off Status' as sign off status is updated only on addition of corrective action.*
  - The sign off requirements check box selection will be deselected on discrepancy creation.*
  - Users will be able to manually enable/ disable the defaulted sign off requirements and set the required sign off requirements during creation.*
- Defaulted/User defined sign off requirements at discrepancy level will be defaulted for the subsequent corrective actions added.
  - When a discrepancy is added from Due List, then the same sign off requirements as defaulted/enabled in the previous package from which it was deferred, will be defaulted while adding to the new package.



Exhibit 1: Identifies the changes in Record Aircraft Maintenance Execution Details screen

**Record Aircraft Maintenance Execution Details**

Exe. Details Aircraft Reg # 101 Go Station Montreal Work Center YUL-100-00 Date & Time 15-4-2020 10:37:24 Flt. Hrs 738.20 Flt. Cycles 560.00

Open Items (937) Discrepancies (2) Work Information (2) Component Replacement (3) Material Request (2)

Search Options: ☒ Log Cards ☒ Minor ☒ Major Search by --Search by-- Search For Go

**Execution Record Details**

Exe. Ref. # Line Pack VP-002565-2017 Status In-Progress HS ES NR Category 1-Repair Ref. Time Zone ET

Log # 344 Orig. Work Center YUL-100-00 Maint. Event Package Desc.

**Discrepancy**

Log Item # - Seq #	Record Status	Discrepancy #	Sign-off Status	HS	ES
344/445					

Type MIREP ATA # 00-00

Discrepancy Description Faulty Altimeter

On click of '+' for creating a new discrepancy, Sign Off Requirement to be identified as per the values set for the set option 'Default Sign Off Requirements for Non-Routines?' if no sign off requirement is selected and the existing set option 'Allow Identification of Sign Off Requirement without Corrective Action for Discrepancies?' is set as 'Allowed'

Aircraft Maintenance Execution -> Aircraft Maintenance Execution 59 Minute(s) 10:38 AM

## WHAT'S NEW IN AIRCRAFT MAINTENANCE PLANNING?

### Ability to raise Material Requests from Part Requirements for Discrepancies when Work Center is changed

Reference: APRP-960

#### Background

Part Requirements against Discrepancies change frequently, so there is a need to capture the most current Part Requirements at the time of work center change. Currently only the Part Requirements at the time it is added to the work center are requested.

#### Change Details

##### Common Master

A new process parameter 'Auto Generate Material Requests for Discrepancies on Work Center Change?' is added under the Entity Type 'Package Type' and Entity 'Log Card, All user defined package types' in the **Set Process Parameters** screen of the **Define Process Entities** activity with the permitted values. The table below illustrates the functionality of process parameter.

Process Parameter: Auto Generate Material Requests for Discrepancies on Work Center Change?	
Value	Impact on MR generation for discrepancies
0 for Not Required	The system will not auto generate MRs for the part requirements against the Discrepancies at the time of Work Center change for a package.
1 for New Part Requirements	<p>If the process parameter "Auto Generate MR on Discrepancy Allocation for Parts/Quantities previously issued against the Discrepancy?" is also set as '0' for 'No', the system will deduct from the part requirements estimated at time of work center change:</p> <ol style="list-style-type: none"> <li>1. The quantities that are already requested as MR against the latest/new instance of the Discrepancy in the latest/new work center.</li> <li>2. The quantities that are already issued against previous instances of the Discrepancy in previous package. And</li> <li>1. Generate new MRs for remaining quantities of required parts against the current work center, if any</li> </ol>
2 for All Part Requirements	<p>If the process parameter "Auto Generate MR on Discrepancy Allocation for Parts/Quantities previously issued against the Discrepancy?" is also set as '0' for " 'No', the system will:</p> <ol style="list-style-type: none"> <li>1. Short close all MRs generated against previous instances of the discrepancy</li> <li>2. The quantities that are already issued against previous instances of the Discrepancy in previous packages (including the current package with the old WC reference)</li> <li>3. Raise new MRs for the remaining parts/quantities of part requirements against the current work center, if any.</li> </ol>

## WHAT'S NEW IN SHOP WORK ORDER?

### Improvements in Shop Quick Actions Hub

Reference: APRP-1335

#### Background

Shop Quick Actions Hub is a new light weight hub which saves time by having all actions available in one page, all relevant information in one screen and act as one Hub for Shop that can launch all Shop related pages. Certain functionalities like Dual Authentication during sign off, auto launch of Manage Intershop Routing popup during routing scenario and Repair Order and Exchange Order information were already available in RSED screen. Shop Quick Actions Hub is now enhanced in order to have the same provision as mentioned.

Along with the above capabilities, Shop Quick Actions Hub is also enhanced in order to view the Approved MOD info in the MOD Info card and a provision to distinguish between Internal or Customer Hold applied.

#### Change Details

##### 1. Approved MOD details in the MOD Info Card


A new control 'Approved' is introduced in the MOD Info card in the card section of **Shop Quick Actions Hub**. This control would display the info regarding any Approved MODs applicable to respective Shop Work Order.


**Exhibit 1:** Identifies the new 'Approved' control in Shop Quick Actions Hub

The screenshot displays the 'Shop Quick Actions Hub' interface for Work Order CWO-008708-2018. The interface includes a top navigation bar, a search bar, and several information cards. The 'MOD Info' card is highlighted, showing 'In' and 'Out' status. A yellow callout box points to the 'Approved' control in the MOD Info card, which displays 'Approved 0.1.2'. Below the cards is a table with columns for Task/Discrepancy #, Description, TS, HS, CS, ES, SS, RET, Seq #, Execution Comments, Discrep., Obs., Req. Mat., Disassem., Assem., Part Cons., Mat. Req., and Comp. Repl. The table shows a single row for Task/Discrepancy # NST-003257-2018 with Description NST-001.

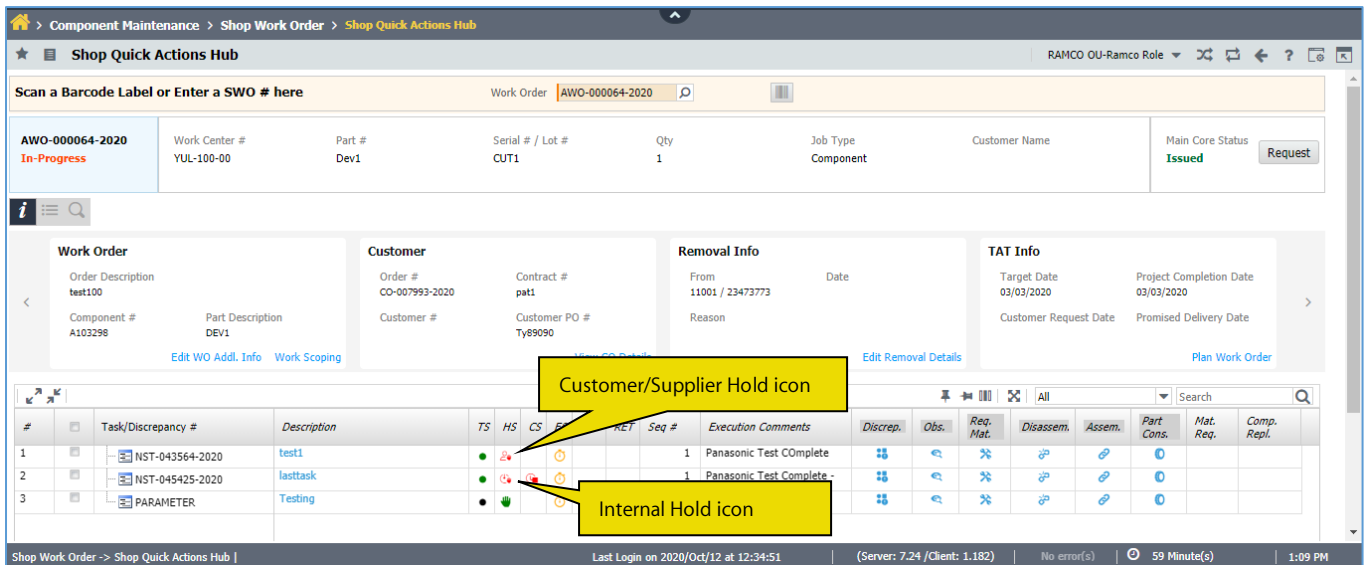
##### 2. Internal/Customer Hold differentiation in the HS column of the multiline

The 'Red' icon indicating hold applied on a task/discrepancy will now be enhanced to show if it is Internal/ Customer/ Supplier hold based on Set Option as mentioned below:-

-  : Hold code having the Process Parameter 'Caused by' under the Entity Type: Hold Codes defined as "0" for 'Internal'

-  : Hold Codes having the Process Parameter 'Caused by' under the Entity Type: Hold Codes defined as anything other than "0" for 'Internal' (i.e. Customer/Supplier)

**Exhibit 2:** Identifies the new **Hold** icons in '**HS**' column of Shop Quick Actions Hub multiline



The screenshot displays the 'Shop Quick Actions Hub' interface. At the top, there's a navigation bar with 'Component Maintenance > Shop Work Order > Shop Quick Actions Hub'. Below this, a search bar prompts 'Scan a Barcode Label or Enter a SWO # here' with the value 'AWO-000064-2020'. A summary card shows 'AWO-000064-2020 In-Progress' with details like Work Center # YUL-100-00, Part # Dev1, Serial # / Lot # CUT1, Qty 1, Job Type Component, and Customer Name. Below the summary, there are tabs for 'Work Order', 'Customer', 'Removal Info', and 'TAT Info'. The 'Work Order' tab is active, showing details like Order # test100, Component # A103298, and Part Description DEV1. Below the tabs is a table with columns: #, Task/Discrepancy #, Description, TS, HS, CS, RET, Seq #, Execution Comments, Discrep., Obs., Req. Mat., Disassem., Assem., Part Cons., Mat. Req., and Comp. Repl. The table has three rows. The first two rows have 'NST-043564-2020' and 'NST-045425-2020' as Task/Discrepancy #, with descriptions 'test1' and 'lasttask' respectively. The third row has 'PARAMETER' as Task/Discrepancy # and 'Testing' as Description. The 'HS' column for the first two rows contains a green circle with a red dot (Internal Hold icon) and a yellow circle with a red dot (Customer/Supplier Hold icon). The 'HS' column for the third row contains a green circle with a red dot (Internal Hold icon). Yellow callout boxes point to these icons with labels: 'Customer/Supplier Hold icon' and 'Internal Hold icon'.

### 3. Repair & Exchange Order Info as Cards in Shop Quick Actions Hub

Two new cards: Repair Order Info and Exchange Info have been introduced in Shop Quick Actions Hub in order to show the info regarding repair order(s) generated against the Shop Work Order and the Exchange Order info related to the Shop Work Order.

- **Repair Order Info:** It displays Repair Order info like Repair Order #, Repair Order Status, Repair Shop # and RO Date if only one Repair Order is generated for the SWO #. If more than one Repair Order(s) exists, then the info regarding the latest generated Repair Order only will be shown as long as it is not in Cancelled status. Two links one for showing the count of total Repair Order(s) available against the SWO # which will traverse to 'Select Repair Order' screen where all the related Repair Order(s) will be listed and the other link 'View Repair Order' for viewing the current Repair Order # referenced in the card also provided along with the relevant info.
- **Exchange Order Info:** It displays Exchange Order info related to the SWO # like Exchange Order #, Exchange Order Status, Exchange Type and Source Issue Status. Along with these info, a link Manage Exchange Order is also provided in order to navigate to 'Manage Exchange Order' screen for the Exchange Order # associated with the respective SWO #.

**Exhibit 3: Identifies the new Repair Order Info & Exchange Info cards in Shop Quick Actions Hub**

The screenshot displays the 'Shop Quick Actions Hub' interface. At the top, there's a navigation bar with 'Component Maintenance > Shop Work Order > Shop Quick Actions Hub'. Below this, a search bar prompts 'Scan a Barcode Label or Enter a SWO # here' with a 'Work Order' field containing 'CWO-008910-2020'. The main area features three cards: 'Repair Info', 'Exchange Info', and 'Repair Order Info'. The 'Exchange Info' card is highlighted with a yellow callout box labeled 'Exchange Info card'. The 'Repair Order Info' card is also highlighted with a yellow callout box labeled 'Repair Order Info card'. Below the cards is a table with columns: #, Task/Discrepancy #, Description, TS, HS, CS, ES, SS, RET, Seq #, Execution Comments, Discrep., Obs., Req. Mat., Disassem., Assem., Part Cons., Mat. Req., and Comp. Repl. The table shows one row with a task for 'airframe induction'.

**4. Auto-Route Parts from Shop Quick Actions Hub**

If a Shop Work Order requires an external routing, then based on the criteria set, Manage Intershop Routing popup would be launched on completion of the respective task or on performing last sign off of the task. Manage Intershop Routing popup, can be launched from Task Action popup, Discrepancy Actions popup or Record Sign Off & Work Completion popup.

**Exhibit 4: Identifies the new 'Manage Intershop Routing' popup in Shop Quick Actions Hub**

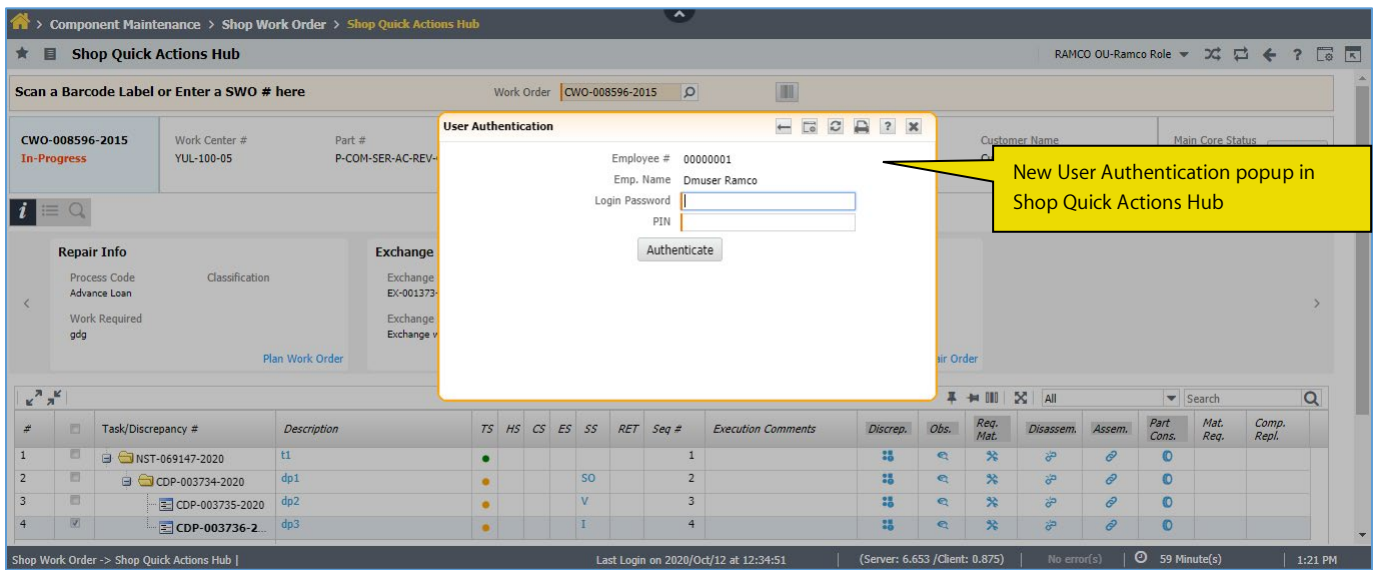
The screenshot shows the 'Manage Intershop Routing' popup. It has a 'Reference Document Details' section with fields for 'Ref. Doc #', 'SWO #', 'Part # / Serial #', and 'Removed from'. There's a 'Search' button. Below this is the 'Part Routing Details' section, which contains a table with columns: #, Ref. Doc.Type, Ref. Doc #, PRT, Part #, Serial #, Qty., Disposition, From Warehouse #, and From Repair A. The table shows two rows of data. A yellow callout box points to the popup with the text 'Manage Intershop Routing popup launched from Shop Quick Actions Hub'.

**5. Dual authentication in Shop Quick Actions hub**

A provision for capturing Login Password and/or PIN while performing Sign Off/ Void/ Reject is now provided in Shop Quick Actions Hub. Dual Authentication can be performed from Task Action popup, Discrepancy Actions popup or Record Sign Off & Work Completion popup. It is based on the existing Entity defined in Configure Dual Authentication screen. Another provision to launch Set/Change PIN popup is also given in

order to help the user set the PIN in case PIN has been reset. User can provide Login Password and/or PIN based on what is set in Configure Dual Authentication screen for the actions Sign Off/ Void/ Reject.

**Exhibit 5:** Identifies the new **Dual Authentication** popup in **Shop Quick Actions Hub**



## Links to Part Disposition & Maintain Emp. Info. from Shop Quick Actions Hub

Reference: APRP-1243

### Background

Currently, there is no provision to view or modify the Part Disposition and Movement Details of the Main Core and no provision to view the employee information from Shop Quick Actions Hub. Hence, Links to Part Disposition & Maintain Emp. Info. from Shop Quick Actions hub is enabled.

### Change Details

#### Common Master

The permitted values of the process parameter 'Document Info cards display order in the Shop Quick Actions Hub?' under the Entity Type 'Shop Work Order Type' and Entity 'All user defined work order types' in the **Set Process Parameters** screen of the **Define Process Entities** activity is modified to enter the corresponding card numbers separated by commas. 2-Customer, 3-Removal Info, 4-TAT Info, 5-Dates Info, 6-Estimation Info, 7-MOD Info, 8-Parent/Root Info, 9-Repair Info, 10- Exchange Info, 11-Repair Order Info, 12-Part Disposition, 13-Movement Details.

**Default Value:** Order as 2-Customer, 3-Removal Info, 4-TAT Info, 5-Dates Info, 6-Estimation Info, 7-MOD Info, 8-Parent/Root Info, 9-Repair Info, 10- Exchange Info, 11-Repair Order Info, 12-Part Disposition, 13-Movement Details.

#### Shop Quick Actions Hub

Two new cards, 'Part Disposition and Movement Details' are introduced to view the relevant details from **Shop Quick Actions Hub**. From these cards, we can launch the new pop-up to modify the Disposition details and Movement details of a Main Core. Also, a new link 'Maintain Employee Information' is added in Quick Links combo of a **Shop Quick Actions Hub** to view the employee details.

- Part Disposition - Will show the disposition details of the Main Core along with a link to traverse to Edit Disposition Details.
- Movement Details - Will show the movement details of the Main Core along with a link to traverse to Edit Movement Details.

**Edit Disposition Details** - On launch of Part Disposition Details pop-up, system retrieves and display the following controls: 'Final Rep. Disposition', 'NFF?', 'Disposition Remarks' and 'BER?'. If user updates/modify the disposition details, on save, the disposition details will be updated against the work order.

**Edit Movement Details** - On launch of Movement Details pop-up, system retrieves and displays the following controls: 'Final Movement' and its values, 'Movement Remarks'. If user updates/modify the movement details, on save, the movement details will be updated against the work order.

Exhibit 1: Identifies the New Cards in Shop Quick Actions Hub

Repair Info

Process Code  
Repair

Classification  
COA

Work Required

Plan Work Order

Part Disposition

Initial Rep.Disposition  
1-REPAIR

Final Rep.Disposition  
2-RETURN AS IS

Disposition Remarks  
disposition done

Edit Disposition Details

Movement Details

Current Loc./Next Move  
WC-YUL-100-00/Return to ...

Final Movement  
RTINTOSPECWH/0123

Movement Remarks

Edit Movement Details

Two new cards, Part Disposition and Movement Details to see those information in SQAH.

Newly added link Maintain Employee Information

#	Task/Discrepancy #	Description	TS	HS	CS	ES	SS	RET	Seq #	Execution Comments	Discrep.	Obs.	Req. Mat.	Disassem.	Assem.	Part Cons.	Mat. Req.	Comp. Repl.
1	EO-WO-1	EO-WO-1	•						100									
2	EO-WO-11	EO-WO-11	•						111									
3	EO-WO-12	EO-WO-12	•						115									
4	NSTD0009082019	T6	•				M&I		300									
5	EO-WO-13	EO-WO-13	•						500									

Quick Links

Print Report

Exhibit 2: Identifies the Part Disposition Details pop-up

Part Disposition Details

Final Rep. Disposition: 2-RETURN AS IS

Disposition Remarks: disposition done

NFF?: No

BER?:

Edit Disposition

Part Disposition pop-up, user can select the disposition details and save it against the work order

Exhibit 3: Identifies the Movement Details pop-up

Movement Details

Final Movement: Return to Specific Ware

Movement Remarks:

0123

Edit Movement

Movement Details pop-up, user can select the final movement and save it against the work order



## Resequence Tasks in Shop Quick Actions hub

Reference: APRP-1159

### Background

Currently in **Shop Quick Actions Hub**, mechanics will not be able to resequence task/discrepancy based on priority of execution. This can be done only from Plan Work Order.

### Change Details

#### Shop Quick Actions Hub

Resequence button is introduced in the 'Actions' section of **Shop Quick Actions Hub** beside 'Discrepancy Actions' button. Click of Resequence button launches new 'Resequence Task/Discrepancy' popup. From the 'Resequence Task/Discrepancy' popup, user can both update the Seq # of the task/discrepancy and also regenerate Seq # using Update Seq # & Re-Generate Seq # buttons respectively.

On click of Update Seq #, popup will be dismissed and the updated Seq # will be shown in **Shop Quick Actions Hub**.

**Resequence Task/Discrepancy** – Resequence Task/Discrepancy pop-up will fetch and display the following columns: Task Status, Task/Discrepancy #, Task/Discrepancy description, ATA # and Seq #. If user modifies the Seq # and updates it will reflect in the Shop Quick Actions Hub multiline.

**Exhibit 1:** Identifies the Resequence button in **Shop Quick Actions Hub**

The screenshot displays the 'Shop Quick Actions Hub' interface. At the top, there's a breadcrumb trail: 'Component Maintenance > Shop Work Order > Shop Quick Actions Hub'. Below this, the 'Shop Quick Actions Hub' title is shown. The interface is divided into several sections: 'Repair Info' (Process Code: Repair, Classification: COA, Work Required), 'Part Disposition' (Initial Rep. Disposition: 1-REPAIR, Final Rep. Disposition: 2-RETURN AS IS, Disposition Remarks: disposition done), and 'Movement Details' (Current Loc./Next Move: WC-YUL-100-00/Return to ..., Final Movement: RTNTOSPECWH/0123, Movement Remarks). Below these sections is a table with columns: #, Task/Discrepancy #, Description, TS, HS, CS, ES, SS, RET, Seq #, Execution Comments, Discrep., Obs., Req. Mat., Disassem., Assem., Part Cons., Mat. Req., and Comp. Repl. The table contains five rows of data. At the bottom of the interface, there's a 'Quick Links' section with buttons: Clock On, Clock Off, Hold, Release, Sign Off, Task Action, Discrep. Action, and Resequence. A yellow callout box points to the 'Resequence' button with the text: 'New Button Resequence is added'.

#	Task/Discrepancy #	Description	TS	HS	CS	ES	SS	RET	Seq #	Execution Comments	Discrep.	Obs.	Req. Mat.	Disassem.	Assem.	Part Cons.	Mat. Req.	Comp. Repl.
1	EO-WO-1	EO-WO-1	•						100									
2	EO-WO-11	EO-WO-11	•						111									
3	EO-WO-12	EO-WO-12	•						115									
4	MSTD0009082019	T6	•						300									
5	EO-WO-13	EO-WO-13	•															

Exhibit 2: Identifies the Resequence Task/Discrepancy Pop-up

**Resequence Task/Discrepancy**

1 - 7/7

#	<input type="checkbox"/>	TS	Task/Discrepancy #	Description	ATA #	Seq #
1	<input type="checkbox"/>	●	EO-WO-1	EO-WO-1	00-00	100
2	<input type="checkbox"/>	●	EO-WO-11	EO-WO-11	00-00	111
3	<input type="checkbox"/>	●	CDP-100533-2020	Lamp in right wing is not	00-00	113
4	<input type="checkbox"/>	●	EO-WO-12	EO-WO-12	00-00	115
5	<input type="checkbox"/>	●	NSTD0009082019	T6	00-00	300
6	<input type="checkbox"/>	●	EO-WO-13	EO-WO-13	00-00	500
7	<input type="checkbox"/>	●	CDP-100547-2020	Lavatory lock needs to	00-00	600

Re-Generate Seq #   **Update Seq #**

Resequence Task/Discrepancy pop-up will have the facility to update seq # and regenerate seq #

## Show completed tasks by default in Shop Quick Actions hub

Reference: APRP-1244

### Background

On launch of Shop Quick Action Hub, user can see only the open Tasks/Discrepancies. User can manually select the check box 'Show Completed Task' and click Get to see the completed tasks also.

There should be a provision to define that, on launch of Shop Quick Action Hub need to show the completed Task or not along with open Tasks/Discrepancies.

### Change Details

#### Common Master

New process parameter 'Default 'Show Completed Task' checkbox on loading of Shop Quick Actions Hub?' has been introduced under the Entity Type 'Shop Work Order Type' and the Entity 'All user defined Work Order Type' in the **Define Process Entities** activity of Common Master, with the following permitted values:

- 0 (No) Existing Behavior - System will not default the 'Show Completed Task' checkbox on launch of **Shop Quick Action Hub**.
- 1 (Yes) - System will default the 'Show Completed Task' checkbox on launch of **Shop Quick Action Hub** and show the completed Task along with open Tasks/Discrepancies.

#### Shop Quick Action Hub

If process parameter 'Default 'Show Completed Task' checkbox on loading of Shop Quick Actions Hub?' is set as "1" (Yes) and user launches the **Shop Quick Action Hub**, then system will default the 'Show Completed Task' checkbox and show the completed Task along with open Tasks/Discrepancies.

## Exhibit 1: Identifies changes in Shop Quick Action Hub screen

Component Maintenance > Shop Work Order > Shop Quick Actions Hub

★ Shop Quick Actions Hub

Scan a Barcode Label or Enter a SWO # here

Work Order: CWO-009693-2020

CWO-009693-2020  
In-Progress

Work Center # YUL-100-00

Part # 0000-4373A

Serial # / Lot # MSN-91121

Qty 1

Job Type Component

Customer Name OEM

Main Core Status Not Applicable

Request

Search Criteria

Get

‘Show Completed Task’ check box will be selected on screen launch

☒ Show Completed Task

#	Task/Discrepancy #	Description	TS	HS	CS	ES	SS	RET	Seq #	Execution Comments	Discrep.	Obs.	Req. Mat.	Disassem.	Assem.	Part Cons.	Mat. Req.	Comp. Repl.
1	T-918	T-918							1,900								1	1
2	CDP-058169-2020	Testing - tab							1								5	
3	CDP-058170-2020	DSICE							22								3	2
4	CDP-058700-2020	dis c							7,206									
5	CDP-058699-2020	Dis							7,205									
6	NST-058600-2020	Testing - 1							100								18	29
7	CDP-057541-2020	Testing - 21							11									
8	CDP-057756-2020	Testing chart							19								1	1
9	CDP-057756-2020	Testing - 22							19									8

Quick Links

Print Report

Shop Work Order -> Shop Quick Actions Hub | Last Login on 20-08-2020 at 14:43:46 | (Server: 0.369 /Client: 0.218) | No error(s) | 59 Minute(s) | 3:01 PM

## Ability to Print Task Cards for a Closed Work Order on Desktop

Reference: APRP-545

### Background

Business need is to print the task card for a closed work order on desktop. Hence, provision to launch Task/Discrepancy card for a work order is enabled in View Order Details.

### Change Details

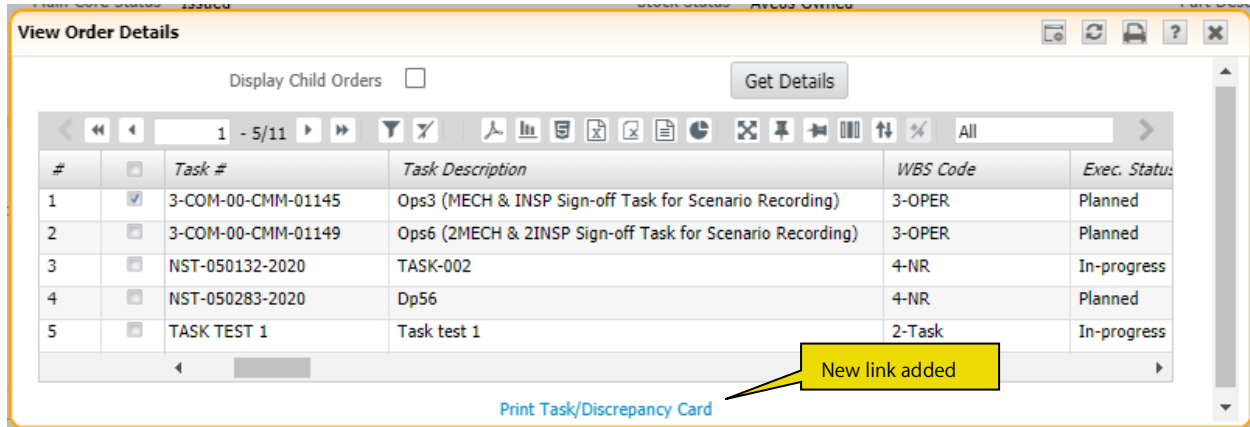
#### View Order Details

A new link **Print Task / Discrepancy Card** is added in the **View Order Details** screen of **View Work Order Details** screen. If user has selected a Work Order and launched **View Order Details** screen from **View Work Order Details** screen, after selecting a Task or Discrepancy and clicking Print Task/Discrepancy Card, the system will launch the respective task/discrepancy card with the detailed information.



*Note: If user has not selected any record and launching the link will generate task card for all the task/discrepancy in the Work Order. This works as 'Print Sel. Task Card' in **Plan Work Order** screen.*

**Exhibit 1:** Identifies the **Print Task/Discrepancy Card** link in **View Order Details** screen



## WHAT'S NEW IN COMPONENT MAINTENANCE PLANNING?

### Ability to provide Reason for Stock Transfer from Route U/S page during Stock Transfer

Reference: APRP-1409

#### Background

When parts are moved from an unserviceable warehouse to another warehouse or location, there can be multiple reasons associated with the stock transfer. For example: Parts can be moved to a long term parking warehouse where the parts would be taken up for repair later on.

Hence, a new provision is required in order to capture this reason as remarks while the Stock Transfer is initiated and also view the same as a part of the Stock Transfer # that is generated.

#### Change Details

To facilitate the capture of remarks while movement of parts is initiated, the following changes have been introduced in **Route Unserviceable Components / Parts** screen:

- A new editable column 'Move Remarks' is added in 'Unserviceable Components / Parts' multiline of **Route Unserviceable Components / Parts** screen.
- User can enter Move Remarks against the selected records in **Route Unserviceable Components / Parts** screen and this Move Remarks entered will be captured and shown in the 'Remarks' control in the respective View Stock Transfer screen for both inter and intra transfers on click of 'Move Parts'.

*Note: If multiple records are selected and only one Move Remarks is entered, then the same will be shown in the respective remarks control of the Stock Transfer # but if Move Remarks entered against each row and same Stock Transfer # gets generated, then any one of Move Remarks only will be captured. If more than one Stock Transfer # get generated, then the Move Remarks entered against each row will be captured for the respective Stock Transfer # generated.*

**Exhibit 1:** Identifies the new 'Move Remarks' column in Route Unserviceable Components / Parts screen

Component Maintenance Planning -> Route Unserviceable Components / Parts

Warehouse Details: U/S Routing WH # ALL, Zone # ALL, Warehouse Description

Search Criteria: Search

Unserviceable Components / Parts

#	EF	Part #	Serial #	Stock Transfer Mode	To Warehouse #	To Bin #	To Zone #	Move Remarks	From Zone
1	E	000:99999	0011						
2	E	000:99999	0012						
3	E	000:99999	0013						
4	E	000:99999	0014						
5	E	000:99999	TestmultiFB						
6	E	000:99999	TRE-104						
7	E	000:99999	TRE-105						
8	E	000:99999	TRE-106						
9	E	000:99999	TRE-107						
10									

Cust. Order Details: Customer PO #, Repair Process Code, Customer Priority

Evaluate / Get Contract

Component Maintenance Planning -> Route Unserviceable Components / Parts | Last Login on 10/01/2020 at 11:15:26 AM | (Server: 4.165 /Client: 1.785) | No error(s) | 59 Minute(s) | 11:19 AM

**Exhibit 2:** Identifies the 'Remarks' control where the captured Move Remarks will be shown

Stock Management -> Stock Transfer -> View Inter Warehouse Stock Transfer

View Inter Warehouse Stock Transfer

Ref. Document Type, Ref Document #

Part Information

#	Line #	Part #	Part Description	Stock Status	Qty	Unit
1	1	729208:99167	ELECTRICAL IDG HARNESS	Accepted	2.00	EA

Initiator Details: Employee # 00001413, Employee Name RICHARD, Work Phone #

Other Details: User Defined Detail 1 Reason for Stock Transfer Automatic Stock Transfer for Mail..., User Defined Detail 2 Remarks Test-12345678

Stock Transfer -> View Inter Warehouse Stock Transfer | Last Login on 10/01/2020 at 11:15:26 AM | (Server: 1.501 /Client: 2.873) | No error(s) | 59 Minute(s) | 11:22 AM

## Ability to filter for Auto Routing failed records in the Route U/S page

Reference: APRP-1110

### Background

When a part is failed to send for repair due to automatic execution order generation rules failure, the respective failed parts are displayed in the Route Unserviceable Components/Parts screen. But when such a part comes to an unserviceable warehouse, it becomes difficult for a warehouse clerk to search for the part for which Repair Automation has failed and take necessary actions on it due to large quantities of parts in the unserviceable warehouse.

Hence, a new provision is required wherein users can search for the records that have failed the Repair Automation from the Unserviceable Components/Parts multiline.

### Change Details

To facilitate searching for records that have failed the Repair Automation, the following changes have been done in the **Component Maintenance Planning** business component:

- New combo search criteria '**Auto Evaluation**' provided in the Search Criteria section of **Route Unserviceable Components/ Parts** screen.
- '**Auto Evaluation**' combo will be loaded with the values such as: Yes-With Failure, Yes-With Error, No-Not Defined Manual and No-Manual along with a BLANK value defaulted.
- User can select the required value for searching the failed records and records having the user selected 'Auto Evaluation' combo value would be fetched in the 'Unserviceable Components / Parts' multiline. Blank search on the other hand will retrieve all the records in the multiline irrespective of the failed Repair Automation records.

**Exhibit 1:** Identifies the new combo control '**Auto Evaluation**' in **Route Unserviceable Components / Parts**

The screenshot displays the 'Route Unserviceable Components / Parts' screen. The 'Search Criteria' section includes a new dropdown menu labeled 'Auto Evaluation?' with the value 'Yes-With Failure' selected. A yellow callout box points to this dropdown with the text 'New combo control 'Auto Evaluation''. Below the search criteria, a table lists unserviceable components with columns for Part #, Serial #, Auto Evaluation?, Move Remarks, Stock Transfer Mode, To Warehouse #, and To Bin #. The table shows 11 records, all with 'Yes-With Failure' in the 'Auto Evaluation?' column.

#	EF	Part #	Serial #	Auto Evaluation?	Move Remarks	Stock Transfer Mode	To Warehouse #	To Bin #
2	E	EXO-PO-22092020-1	GI-012190-20201	Yes-With Failure				
3	E	EXO-PO-22092020-1	GI-012190-20201	Yes-With Failure				
4	E	EXO-PO-22092020-1	GI-012190-20202	Yes-With Failure				
5	E	EXO-PO-22092020-1	GI-012190-20202	Yes-With Failure				
6	E	EXO-PO-22092020-1	GI-012190-20202	Yes-With Failure				
7	E	EXO-PO-22092020-1	GI-012190-20203	Yes-With Failure				
8	E	EXO-PO-22092020-1	GI-012190-20203	Yes-With Failure				
9	E	EXO-PO-22092020-1	GI-012190-20203	Yes-With Failure				
10	E	EXO-PO-22092020-3	GI-012181-20201	Yes-With Failure				
11	E	EXO-PO-22092020-3	GI-012181-20201	Yes-With Failure				



## Loan Order - Core Due in Repair Automation

Reference: APRP- 1251

### Background

Whenever a part is received in unserviceable condition, there can be instance where instead of exchanging an owned part, a loaned part might be exchanged. In this scenario, an immediate repair of the part received in unserviceable condition need not be undertaken.

Currently, if a repair rule is defined for a part, it will undergo repair automation irrespective of the outstanding loan order. Hence, a new provision is required wherein the repair automation must be controlled by considering any open loan orders against the exchanging part.

### Change Details

- User can define the rule for the Parameter Type as Source Document and Parameter Entity as Open Loan Order
- If the rule is defined in Parameter Entity as Open Loan Order and Exe. Order Generation? is set as "No" and any Open Loan Order (Loan Order in the Received status) is available for that Part, then the Repair Order will not be generated.
- Rule can be configured to create Repair Order also, if 'Exe. Order Generation?' is set as 'Yes' for the Parameter Entity 'Open Loan Order'.



*Note: Consideration of rules will be based on the Priority defined.*

## Ability to re-consider for Repair Automation even if it was failed / not run previously

Reference: APRP-1252

### Background

During repair automation, if repair rules are defined for a part and if that rule fails, **then the corresponding** part can be viewed in 'Route Unserviceable Component/Parts screen'. If the user wants to review the repair rules, the same can be done from 'Review Repair Rules' pop up. Later, even if the rule is satisfied, the user needs to create Execution Order manually. This enhancement brings the ability to evaluate the rules again, and if the rules are evaluated successfully, then the Execution Order will be generated according to the rules defined.

### Change Details

- A new button 'Re-evaluate Rules' is introduced in the 'Review Repair Rules' pop up.
- User can review the failed rules from the multiline of 'Review Repair Rules' pop up, can do the necessary changes and click this 'Re-evaluate Rules' button to evaluate the rules again.
- If all the rules are evaluated successfully and Repair Order Generation is failed due to any error, then the status in 'Auto Evaluation?' column will be shown as 'Yes-With Error'. If the user is going to launch the 'Review Repair Rules' pop up for the respective record, there will be 'Regenerate RO' button available along with the 'Re-evaluate Rules' button.
- User can review the errors from the 'Message Center' and do the necessary changes and click the 'Regenerate RO' button to generate the Repair Order without evaluating the rules again. (Note: In this case, user can evaluate the rules again by clicking 'Re-evaluate' button)
- User can define the new rules for a part and click the 'Re-evaluate Rules' button to consider the newly added rules also.
- User can see the rules evaluated date and time against the control 'Rule Eval. Date & Time' in the header of 'Review Repair Rules' pop up for a particular record.

Exhibit 1: Identifies changes in 'Review Repair Rules' pop up.

The screenshot shows the 'Review Repair Rules' pop-up window. At the top, it displays header information: HAE-INT-003, Serial #/Lot # MSN-25012020-2051, Customer #|Name, Removed From A/C Reg. #|Model #, Removed From NHA Part #|Serial #, Source Document # GI-010960-2020, and Rule Eval. Date & Time 26/06/2020 10:00. Below this is the 'Supplier Info.' section. The main area contains a table with the following data:

#	Rule ID	Repair Rules	Rule Parameter	Actual Value
1	PRBR-000011-2020	Float (Global) - Current Float Qty Greater than		
2	PRBR-000016-2020	Exchange PO (Global) Core Due		
3	PRBR-000017-2020	Loan Order (Global) Core Due		
4	PRBR-000022-2020	Remaining Life < 10 % of Ultimate Life	Calc. Values - Remaining Life From 0.00000000 To 10.00000000	

Below the table is a 'Message Center' section. At the bottom of the pop-up, there is a 'Re-evaluate Rules' button. A yellow callout points to this button with the text 'New Button 'Re-evaluate Rules''. Another yellow callout points to the 'Rule Eval. Date & Time' field with the text 'Provision to see the rule evaluated date and time'.

Exhibit 2: Identifies changes in 'Review Repair Rules' pop up for the status 'Yes-With Error'

The screenshot shows the 'Review Repair Rules' pop-up window for the status 'Yes-With Error'. The header information is the same as in Exhibit 1. The 'Supplier Info.' section is also present. The main area displays a message: 'Found no rows to display!!!'. Below this message is a 'Message Center' section with the text: 'Unable to process. Please map External Repair Warehouse for the selected Unserviceable Routing WH # in Set Options.' At the bottom of the pop-up, there are two buttons: 'Re-evaluate Rules' and 'Regenerate RO'. A yellow callout points to the 'Re-evaluate Rules' button with the text 'New Button 'Re-evaluate Rules''. Another yellow callout points to the 'Regenerate RO' button with the text 'New Button 'Regenerate RO''. A third yellow callout points to the 'Rule Eval. Date & Time' field with the text 'Provision to see the rule evaluated date and time'.

## Ability to enable/disable Repair Automation at Warehouse level

Reference: APRP-1253

### Background

Currently if rules are defined for Part #, system considers it for auto RO generation based on the rule defined. But there are situation when a Part is routed to a particular unserviceable warehouse, user does not want Repair Order to be generated for the same and instead may only store the Unserviceable Parts. Therefore, a new provision is required to consider if auto RO generation rules have to be considered at warehouse level.

### Change Details

A new column 'Repair Automation?' is introduced in the Warehouse Details multiline of **Set Options** activity of the **Component Maintenance Planning** business component. 'Repair Automation?' combo column is loaded with the values 'Yes', 'No' and 'BLANK'. By default it should load with BLANK. The value set for Repair Automation? for each warehouse to be considered before system runs the scheduler for Auto RO generation.

If user has set 'Repair Automation?' as 'No' for an Unserviceable Receivable Warehouse and a Part that has rule defined for Repair Automation is received in that Unserviceable Receivable Warehouse that has Repair Automation set as 'No', then system should not run the Repair Automation scheduler for the corresponding Part # that is received.

**Exhibit 1:** Identifies the 'Repair Automation?' column in **Set Options** screen

The screenshot displays the 'Set Options' screen for Component Maintenance Planning. The 'Option Setting Details' section includes fields for Planning Object, Initial Start Date for Forecast, Standard Horizon, Default parameter, Default Utilization Factor, Allocate On-Wing / Component Jobs to Visit Package, Allocation of Component Jobs to Repair Order, Release of Forecast - Mandatory, Work Center #, Default Location for Repair Order Generation, Default Piecepart Component #, and Auto Priority.

The 'Warehouse Details' section shows a table with the following data:

#	Unserviceable Recv.Warehouse	External Repairshop Warehouse	Repair Automation?
1	0121	0121	Yes
2	0123	0123	No
3	BANCUST	0123	No
4	BANCUSTUS	0123	No
5	P-WH1	P-WH1	Yes

A yellow callout points to the 'Repair Automation?' column, stating 'New column added'.

## Material Controller name to be available in Route Unserviceable Parts/Components multiline

Reference: APRP-1116

### Background

Sometimes more than one planner is available in an organization and each one of them holds responsibility for different Part #. In this case, Planners can search the Part # with Employee # in **Route Unserviceable Parts/Components** screen.

Business need is to provide the capability to search the Part # by using Planner's 'Name' in Route Unserviceable Parts/Components and the user should be able to see the Planner's Name corresponding to the Part # also.

### Change Details

This enhancement brings the ability to search Part # by using Planner's name in 'Material Controller' control of **Route Unserviceable Components / Parts** screen.

User can see the Planner's Name along with Employee # in the 'Material Controller' column of 'Unserviceable Components / Parts' multiline of **Route Unserviceable Components / Parts** screen.

**Exhibit 1:** Identifies changes in Route Unserviceable Parts/Components screen

The screenshot shows the 'Route Unserviceable Components / Parts' screen. A yellow callout points to the 'Material Controller' field in the 'Search Criteria' section, stating: 'Provision to Search with Planner's Name and Employee #'. Another yellow callout points to the 'Material Controller' column in the data table, stating: 'Provision to see the Planner's Employee # and Name EX: 00001413 (RICHARD OWSIANYK )'.

#	Zone #	From Zone #	Part Type	Lot #	Mfr. Lot #	U/S Routing WH #	From Bin #	Material Controller
1								

At the bottom, the 'Cust. Order Details' section includes fields for 'Customer PO #', 'Repair Process Code', and 'Customer Priority', along with an 'Evaluate / Get Contract' button.

## WHAT'S NEW IN SMART ACTIONS?

### Ability to launch AME/Parts Hub on Barcode scanning from Smart Actions

Reference: APRP-663

#### Background

Earlier when certain barcodes were scanned for working on AME Packages, it will direct to AME screen only. The business need is to navigate to Work Reporting Hub and Parts Hub when corresponding barcodes are scanned.

Two more new actions: Record Parts Replacement and Record Material Request have been now enhanced to launch Parts Hub. Barcode labels which are printed in Package Print for Record Parts Replacement and Record Material Request can be used to launch Parts Hub. Alternatively, Barcode scanning device can also be used to scan the respective Barcodes to launch Work Reporting Hub and/or Parts Hub.

#### Change Details

- To facilitate navigating to Parts Hub screen for recording Parts Replacement and raising Material Request, the following changes have been incorporated in Ramco Aviation:

New process parameters introduced under the Entity Type 'Package 'Print and the Entity 'Barcode Labels' in the **Define Process Entities** activity of **Common Master** business component.

Process Parameter	Value	Impact in Smart Actions
Screen to be launched for Record Parts Replacement?	"0" for 'Record Aircraft Maintenance Execution Details'	System will launch old 'Record Aircraft Maintenance Execution Details' screen when barcode scanned for performing Parts Replacement.
	"1" for 'Work Reporting Hub'	System will launch 'Parts Hub' screen when barcode scanned for performing Parts Replacement.
Screen to be launched for Record Material Request?	"0" for 'Record Aircraft Maintenance Execution Details'	System will launch old 'Record Aircraft Maintenance Execution Details' screen when barcode scanned for performing Material Request.
	"1" for 'Work Reporting Hub'	System will launch 'Parts Hub' screen when barcode scanned for performing Material Request.

- For the Action Type **Record Parts Replacement**, if Parts Hub is launched, then 'Part Attach / Remove' tab will be defaulted and the scanned Task # / Discrepancy # will be defaulted in the 'Task / Discrep. #' combo.
- For the Action Type **Record Material Request**, if Parts Hub is launched, then 'Parts Requirements / Request' tab will be defaulted and the scanned Task # / Discrepancy # will be defaulted in the 'Task / Discrep. #' combo.
- Other existing Action Types : **Review Task, Review Discrepancy, Review Execution Document and Record Discrepancy**, Work Reporting Hub will be launched based on its set option value and the corresponding tabs also will be defaulted.

Exhibit 1: Identifies the **Parts Hub** launched from **Smart Actions** screen

Parts Hub

LC-000604-2019 Task / Discrep. # Type Status

In-Progress DR-032374-2019 :: 7 :: d

Part Requirements / Request: Part Attach / Remove

Found no rows to display!!!

#	Err	CS	Source Task/Discrep. #	Tracking	Action	Object Type	Rem. Part #	Rem. Part Desc	Rem. Serial #	Rem. Qty	Att. Part #	Att. Serial #	Att. Part
1					Replace	Component							

Save as Draft Change Part Delete Draft

Quick Links

Smart Operations -> Manage Work Actions | Last Login on 2020/Oct/12 at 18:25:54 | (Server: 1.26 / Client: 1.456) | No error(s) | 59 Minute(s) | 6:28 PM

## WHAT'S NEW IN CONFIGURATION MANAGEMENT?

### Approve AC and Component Configuration without Mandatory Position codes

Reference: APRP-255

#### Background

During Aircraft Induction process, user will not be adding all mandatory position codes due to lack of Aircraft ground time, record data entry time, and unavailability of data. In this scenario, records team wants to make the aircraft activate. They wanted to approve the configuration (Aircraft and Component) without changing the mandatory position flag inside configuration.

#### Change Details

This enhancement details on the provision to approve Aircraft & Component configuration without mandatory position code parts being attached. To address this, following changes are done:

- A new process parameter **"Configuration authorization without components attached to mandatory positions"** will be added in the **Common Master** business component.
- A new check box **"Authorize without mandatory positions?"** is added in **Approve Part & Component Configuration** and **Approve Model & Aircraft Configuration** screens.

This will enable two levels of checks for the users; initially user can decide the authorization without mandatory position at process parameter level and later by using a new check box.

#### Exhibit 1: New Process Parameter addition

Set Process Parameter (Common Master)	
Entity Type	Tech Record Process Ctrl
Entity	Configuration
Process Parameter	Configuration authorization without components attached to mandatory positions
Permitted Values	Enter "0" Not Allowed, "1" Allowed
Default value	"0" Not Allowed
System behavior based on process parameter value	
0 (No)	The checkbox "Authorize without mandatory positions?" will be hidden and if user tries to approve the configuration without providing the mandatory positions then system will validate.
1 (Yes)	The checkbox "Authorize without mandatory positions?" will be visible and if checked in and user missed to provide the Mandatory Positions. System should approve the Configuration on click of 'Approve Configuration' and if it is Un checked System should validate on click of 'Approve Configuration'



## Exhibit 2: Approve Model &amp; Aircraft Configuration screen

Configuration Management > Configuration > Approve Model & Aircraft Configuration

★ Approve Model & Aircraft Configuration RAMCO OU-ramco role

**Search Criteria**

Search Option:  Aircraft Reg. #:  Aircraft Model #:  Configuration Class:

Search

**Search Results**

#	Base Line Revision	Approve Lower Levels?	Aircraft Model #	Aircraft Reg #	Configuration Class	Assembly Sta
1	Yes	Yes	0612		AI-707	Not Applicable
2	Yes	Yes	A310		AI-707	Not Applicable
3	Yes	Yes	A320-211		AI-707	Not Applicable
4	Yes	Yes	A9785		AI-707	Not Applicable
5	Yes	Yes	VIS-3		AI-707	Not Applicable
6	Yes	Yes			AVEOS	Not Applicable
7	Yes	Yes			CA	Not Applicable
8	Yes	Yes			CA	Not Applicable
9	Yes	Yes			CA	Not Applicable
10	Yes	Yes			CTEST-1	Not Applicable

☐ Authorize without mandatory positions

Approve Configuration(s) Cancel Configuration(s)

New check box "Authorize without mandatory position?" which will be visible based on set option

## Exhibit 3: Approve Part &amp; Component Configuration screen

Configuration Management > Configuration > Approve Part & Component Configuration

★ Approve Part & Component Configuration RAMCO OU-ramco role

**Search Criteria**

Search Option:  Part #:  Operator #:  Component #:  Serial #:

Search

**Search Results**

#	Base Line Revision	Approve Lower Levels?	Component #	Base Part #	Serial #	Operator #
1	Yes	Yes		0U144659:FB244		
2	Yes	Yes		0-1000PSI:61049		
3	Yes	Yes		PA1-2		
4	Yes	Yes		0-0440-4-0005:36361		
5	Yes	Yes		P-1		
6	Yes	Yes		PART -52670 -239		
7	Yes	Yes		293W4102-2:81205		
8	Yes	Yes		109-3501-04-1		
9	Yes	Yes		9171A0021-01:54956		
10	Yes	Yes		0-300PSI:61349		

☐ Authorize without mandatory positions

Approve Configuration(s) Cancel Configuration(s)

New check box "Authorize without mandatory position?" which will be visible based on set option

## WHAT'S NEW IN AIRCRAFT?

### Ability to default Employee #, License #, Skill # & Date in Generate Serviceable Certificate screen

Reference: APRP-546

#### Background

While generating Serviceable Certificate, users will have to always enter Employee #, License #, Skill # and Issue Date which is time consuming. A provision is required where Employee #, License #, Skill # and Issue Date can be defaulted so that user needs to not spend time in entering these details manually.

#### Change Details

To facilitate the defaulting of Employee #, License, Skill # and Issue Date, the following logic have been introduced in **Generate Serviceable Certificate**:

- **Employee #:** Default login user's Employee #.
- **Skill # & License #:** Default if the login user has any one Skill-License mapping which exists for the A/C Model # of the respective Package's A/C Reg # or Part #/ Part Group # of the respective Shop Work Order's main core. If there is no definition of skill-license mapping for the current Aircraft/Part, then both Skill and License will be left blank. Defaults will happen if there is only one Skill/License combination for the current Aircraft/Part or when there is more; Primary Skill-License combination for the current Aircraft/Part will be considered as long as the Primary Skill/License combination itself is not duplicated.
- **Issue Date:** Default the current date of the station of the Work Center # of the respective Package/ Shop Work Order (Exec. Ref. Doc. #).

**Exhibit 1:** Identifies the defaults in **Generate Serviceable Certificate** screen

The screenshot displays the 'Generate Serviceable Certificate' interface. Under 'Search Criteria', the 'Component Replacement #' is set to 'NCR-001381-2019'. The 'Search Results' table shows two entries. The first entry (row 1) has the following values highlighted in a red box:

#	Part #	Serial #	Lot #	Condition	Aircraft Reg. #	Employee #	Skill #	License #	Issue Date	Authoriz
1	ALT-1	1234-00-MSN		New	1133	00000001	01	0001	09-01-2020	
2										

A yellow callout box points to the highlighted values with the text: "Employee #, Skill #, License # and Issue Date are defaulted".

## Ability to identify TSA as a parameter, record it in Initialize & Re-initialize Parameter values and View the same in View Parameter Values & View History of PV update

Reference: APRP-907

### Background

Tracking of component maintenance is typically done based on the usage of the component while it is fitted to an Aircraft. This usage is the actual time/cycles that the component has been run for while attached onto an Aircraft. Apart from Maintenance tracking, the reliability of the component is also tracked based on this usage, where in, components which get removed from aircraft at usages lesser than the anticipated usage are flagged to be Rogue units.

### Change Details

New column to identify and capture 'Time since Attachment' has been introduced in the following User interfaces:

- 'Initialize Consumption & Range Parameter Values' for a given Component in activity **Create/Edit Component Record**, under the business component **Aircraft** and business process **Configuration Management**.
- 'Re-Initialize / Update Parameter Values' for a given component in activity **Re-Initialize / Update Parameter Values**, under the component **Aircraft** and business process **Configuration Management**.
- 'View. Parameter values' for a component, in activity 'View Component Record', under the component **Aircraft** and business process **Configuration Management**.
- 'View History of Parameter value Update' for a component, in activity **View Component Record**, under the component **Aircraft** and business process **Configuration Management**.
- 'Manage Part Technical data Requirement' for a Part in component **Part Administration** and business process **Inventory Setup**.

## Exhibit 1: Initialize Consumption &amp; Range Parameter values

★ Initialize Consumption & Range Parameter Values

RAMCO OU-Ramco Role

Date & Time Format: yyyy/mm/dd NaN

**Component Details**

Component #: COMP-000023  
Part #: PDC-04  
Serial #: 2

Part Description: PDC Testing - Auto Material Loss

**Parameter Details**

#	Parameter	UOM	Parameter Type	Parameter Source	Unknown?	Since New	As of Date	As of Time	Parameter Description	Since Attachment	Since Overhaul	Since Repair
1	FH	HRS	Consumption	Parent	No	▼			Flying Hour			
2					No	▼						

Since Attachment' new column to enter TSA

## Exhibit 2 : Re-Initialize / Update Parameter values

★ Re-Initialize / Update Parameter Values

RAMCO OU-Ramco Role

Date & Time Format: yyyy/mm/dd NaN

**Search Criteria**

Maint Object Type: Component # COMP-000023  
Parameter:

Ref. Doc. #:   
Parameter Type: Consumption

**Default Details**

Update Date & Time: 2020/Oct/28 14:30:24

Remarks:

**Search Results**

#	Parameter	Since New	Update Date	Update Time	Remarks	Since Overhaul	Since Repair	Since Insp.	Since Last Shop Visit	Since Attachment	Initial Value Unknown?
1	FH	300	2020/Oct/28	14:30:24							No
2											No

'Since Attachment' new column to enter TSA

## Exhibit 3 : View Parameter Values

★ View Parameter Values

RAMCO OU-Ramco Role

Date & Time Format: yyyy/mm/dd NaN

**Component Details**

Component #: COMP-000023  
Part #: PDC-04  
Serial #: 2

Part Description: PDC Testing - Auto Material Loss

**Search Criteria**

As of Date: 2020/Oct/28 14:33:39

**Parameter Details**

#	Parameter	Parameter Description	Parameter Type	UOM	Initialized Value	Since New	Since Attachment	Since Overhaul
1	FH	Flying Hour	Consumption	HRS	0.00	300.00	55.00	

'Since Attachment' new column

## Exhibit 4 : View History of Parameter Value Update

**View History of Parameter Value Update** RAMCO OU-Ramco Role

**Component Details**  
 Component # COMHP-000023  
 Part # PDC-04  
 Serial # 2  
 Part Description PDC Testing - Auto Material Loss

**Parameter Details**  
 Parameter FH  
 Parameter Description Flying Hr  
 Present Value 300.00  
 Initialized Value 0.00  
 Parameter Type Consumption  
 UOM HRS  
 As of Date 2020/Oct/28 00:00:00

**Display Filter**  
 From Date 2020/Sep To Date 2020/Oct/29

**Parameter Update History**

#	Since New	Since Attachment	Since Overhaul	Since Repair	Since Inspection	Since Last Shop Visit	Updated Date	Update Mode
1	300.00	55.00	0.00	0.00	0.00	0.00	2020/Oct/28 14:44:41	New

Since Attachment - new column

## Exhibit 5 : Manage Part Technical Data requirements

**Manage Part Technical Data Requirements** RAMCO OU-Ramco role

**Search Criteria**  
 Part # 00001  
 ATA #  
 Valid from 10-29-2020  
 Part Type  
 Status  
 Valid to 10-29-2020  
 Part Category  
 Search on  
 Show Revised

**Parameter Value Requirements**

#	Part #	Part Desc.	Status	Effective from	Effective to	Part Details	Parameter	Since New	Since Attachment	Since Overhaul	Since Repair	Since Last Shop Visit	Source	Source Ref. #	Add. R
1	00001		Active	10-01-2020			FC	Yes	Yes	No	No	No			
2			Active					No	No	No	No	No			

Since Attachment column to set the requirement

Save PV. Requirements

## WHAT'S NEW IN MAINTENANCE PROGRAM?

### Ability to auto-activate or inactivate Tasks in Component Program based on Maint. Operator mapping and Warehouse Receipt Confirmation

Reference: APRP-1130, APRP-1034

#### Background

Organizations that are operating across the globe in different regions need a way to maintain region specific maintenance program since each region's regulatory may have different maintenance standards. Maintaining multiple programs for this purpose would get cumbersome, hence there was a need to maintain tasks from different regions in one program.

Components can move from one region to another and the tasks applicable to a specific region need to be active and tracked against the component when it is present in that region.

#### Change Details

To enable this functionality, the following new developments have been incorporated in the **Component Maintenance Program** business component:

- A new process parameter "**Auto Activation/Inactivation of schedule status of tasks in CMP based on Maint. Operator change?**" has been added in the **Define Process Parameters** activity of the **Common Master** business component. Entity Type: 'Tech. Records Process Ctrl', Entity: 'Part Prog', Permitted values: 0 (No) ; 1 (Yes).
- If the above listed set options are set as 'No', then system will not auto activate or inactivate tasks in the component maintenance program (CMP) based on Maint. Operator (MO) of the component. If the above set options are set as 'Yes' then the system will auto activate tasks in CMP that are applicable to the MO of the Component and inactivate tasks in CMP that are not applicable to the MO of the component.
- A scheduler was developed to periodically check the Maint. Operator (MO) of the component and activate all tasks in the program which are applicable to the MO of the component and inactivate all other tasks which are not applicable to the MO of the component. System will consider any task without MO mapping as applicable to all MO.
- All components attached to an aircraft or another component will inherit the aircraft's MO or Parent Component's MO. Hence on attachment and removals, the tasks in Component Maintenance Program (CMP) will auto activate and inactivate based on MO change.
- All components stocked in a warehouse will inherit the MO of the warehouse which is maintained in Logistics Common Master (LCM). Hence on warehouse transfers, receipt and issue transactions, tasks in CMP will auto activate or inactivate based on MO change.

Auto Activation/Inactivation of schedule status of tasks in CMP based on Maint. Operator change?	
1 for Yes	System will auto activate or inactive tasks in CMP based on Maintenance Operator of the Component
0 for No	System will not activate or inactive tasks in CMP based on Maintenance Operator of the Component

## Ability to auto-activate or inactivate Tasks in Aircraft Program based on Maint. Operator mapping

Reference: APRP-270

### Background

Organizations that are operating across the globe in different regions need a way to maintain region specific maintenance program since each region's regulatory may have different norms. Maintaining multiple programs for this purpose would get cumbersome, hence there was a need to maintain tasks from different regions in one program. Tasks belonging to the region in which the aircraft is present, needs to be active and tracked.

### Change Details

To enable this functionality, the following new developments have been incorporated in the **Aircraft Maintenance Program** business component

- A new process parameter "**Auto Activation/Inactivation of schedule status of tasks in AMP based on Maint. Operator change?**" has been added in the **Define Process Parameters** activity of the **Common Master** business component. Entity Type: Tech. Records Process Ctrl, Entity: Aircraft Maintenance Prog, Permitted values: 0 (No) ; 1 (Yes).
- If the above listed set options are set as 'No' then system will not auto activate or inactivate tasks in the Aircraft maintenance program (AMP) based on Maint. Operator (MO) of the Aircraft. If the above set options are set as 'Yes' then the system will auto activate tasks in AMP that are applicable to the MO of the Aircraft and inactivate tasks in AMP that are not applicable to the MO of the Aircraft.
- The auto activation and inactivation will be triggered when the Aircraft Specific Maintenance Program is associated to a Maintenance Program or when the Aircraft Specific Maintenance Program is activated or revised.

Auto Activation/Inactivation of schedule status of tasks in AMP based on Maint. Operator change?	
1 for Yes	System will auto activate or inactive tasks in AMP based on Maintenance Operator of the Component
0 for No	System will not activate or inactive tasks in AMP based on Maintenance Operator of the Component

## WHAT'S NEW IN CMP?

### Provision to cancel Fresh revisions of CMP

Reference: APRP-1025

#### Background

This enhancement brings the ability to cancel fresh revisions of CMP which might possibly have been created mistakenly by making an unwanted change to an Authorized CMP. Initially, such fresh revisions could not be cancelled and they exist indefinitely in the system. Now with this enhancement, such fresh revisions could be cancelled and the CMP would be reverted back to the last authorized revision. By cancelling an unwanted Fresh revision, we eliminate the possibility of authorization of that revision by a user in future.

#### Change Details

A new button 'Cancel CMP' has been introduced in **Component Maintenance Program** screens. When a CMP revision is in 'Fresh' status, it can be cancelled from two screens namely:

1. **Edit Component Maintenance Program** screen in **Maintain Component Maintenance Program** activity.
2. **Authorize Component Maintenance Program** screen.

Note that only Fresh revisions could be cancelled and such cancelled revisions can be viewed through 'CMP Status' filter in **View Component Maintenance Program** activity.

**Exhibit 1:** Identifies the **Edit Component Maintenance Program Information** screen

**Edit Component Maintenance Program Information**

CMP Status: Authorized

Revision #: 0

Remarks:

Part Removal Details

Parent Removal: Not Required

Specific Part #:

Maintenance Details

#	Program Group	Maintenance Type	Work Unit #	Prog. Item Type	Inherit. Rules Avail.?	Default Exe. Priority
1		Inspection	00002288	Non-Block		
2		Inspection	AMS-25-065-03(SV)-744	Non-Block		
3		Others	161W1304(HL1)-777	Non-Block		USR
4		Others	eo2	Non-Block		AOG
5		Others	T1	As Required		USR

Get Base Task

Edit Date Based Schedule  
Maintain Task Relationship

Edit Usage Based Schedule  
Initialize Maintenance Program

View Work Center Details  
Execution Inheritance Rules for Tasks

Action

Change Work Unit Status To:

Update CMP

Cancel CMP

Cancel CMP button is introduced



Exhibit 2: Identifies the Authorize Component Maintenance Program screen

**Authorize Component Maintenance Program**

Search Criteria

Component #

Part #

Part Description

Status

Maintenance Process

Serial #

ATA #

Component Details

#	Component #	Part #	Serial #	Part Description	Maintenance Process	ATA #	CMP Revision #	Status
1	000014	LBV25EA032-92:M0359	A747002	90 DEGREE ANGLE DRILL	On-Condition	131-10	6	Active
2	000018	337-001-503-0:F0301	B6698743	STAGE 2 LPT DISK	Hard-Time	72-54	6	Active
3	0000EN	2030H0005110:670D3	30H00058198	CIDS DEU TYPE A UNIT	On-Condition	23-73	0	Active
4	0040T0	392440-1-1:99193	P-104	PNEU SO AUGMENT VALVE	On-Condition	36-11	0	Active
5	00J0KH	161T1140-7:81205	HSM2350	MAIN LG TORSION LINK	Hard-Time	32-10	1	Active
6	01202D	9615325032-02439	3504	DISPLAY MGT COMPUTER	On-Condition			Active
7	02D0H2	V2T1520-F4957	8413	BUTTERFLY AIR VALVE	On-Condition			Active
8	03K0R3	161T1140-7:81205	CPT0962HSM	MAIN LG TORSION LINK	Hard-Time			Active
9	0820MW	161T1140-7:81205	CPT0948HSM	MAIN LG TORSION LINK	Hard-Time			Active
10	08500B	161T1140-7:81205	CPT0930HSM	MAIN LG TORSION LINK	Hard-Time			Active

Cancel CMP button is introduced

Exhibit 3: Identifies the View Component Maintenance Program screen

**Select Component #**

Direct Entry

Component #  [View CMP](#)

Search Criteria

Part #

Component #

User Status

ATA #

Component Details

Found no rows to display!!!

Found no rows to display!!!

Serial #

CMP Status

Authorized

Cancelled

Fresh

Revised

A new 'Cancelled' status is added

## WHAT'S NEW IN REPAIR ORDER SETUP?

### Auto Inheritance of Perpetual Task into Repair Order

*Reference: APRP-1343*

#### Background

This enhancement brings improvement to Repair Order Setup. Perpetual tasks are performed on components whenever they reach a shop regardless of schedule. While our product has provision to accommodate such tasks in Component Maintenance Program (CMP), they would not be added into a repair order (RO) automatically.

Repair events do not follow a schedule unlike Maintenance events; they are triggered as and when required. So, whenever a component is sent to shop for repair, perpetual tasks should be performed in addition to the specific repair tasks. This feature ensures through a process parameter that perpetual tasks are added automatically whenever a Repair Order is generated.

For an organization that considers certain tasks as 'Perpetual tasks'; for example, "Cleaning of Oxygen cylinder Lids", this feature comes handy to ensure that such tasks are always added into RO without any manual intervention and are completed along with repair tasks.

#### Change Details

##### Define Process Entities

A new process parameter "Automatic inheritance of Perpetual Tasks into Repair Order from Component Maintenance Program" is added under the Entity Type 'Component Entry' and Entity 'Component' in the **Set Process Parameters** screen of the **Define Process Entities** activity of the **Common Master** business component.

- If the set option is set as '0' (Not required), then perpetual tasks are not automatically inherited into Repair Order.
- If the set option is set as '1' (Always required), then perpetual tasks are automatically inherited into Repair Order.

By default, the parameter is set as '0' (Not required).

When the parameter is set as '1' ( Always Required), tasks of the category 'Perpetual' defined in the Part Program or in Component Maintenance Program for a component will be added automatically into RO.

## Exhibit 1: Parameter addition in Set Process Parameters screen

Maintenance Setup > Common Master > Set Process Parameters

★ Set Process Parameters

Entity Type: **Component Entry** Entity: **Component**  
 Record Status: **Active** Process Parameters Defined? **Yes**

Process Parameter List

#	Process Parameter	Permitted Values	Value	Status	Error Mess
1	Enforce Maint.Operator #	Enter "0" for 'Not Required', "1" for 'Required'	0	Defined	
2	Inherit Maint.Operator # code on attachment	Enter "0" for 'Not Required', "1" for 'Required'	1	Defined	
3	Operator for Internal Maintenance?	Enter "0" for 'Non-Mandatory', "1" for 'Mandatory'	0	Defined	
4	Operator for External Maintenance?	Enter "0" for 'Non-Mandatory', "1" for 'Mandatory'	0	Defined	
5	Update Record Status of the attached Sub-components as "Inactive" upon inactivation of Parent Component Record?	Enter "0" for 'No', "1" for 'Yes'	0	Defined	
6	Update Record Status of the attached Sub-components as "Active" upon activation of an inactive Parent Component	Enter "0" for 'No', "1" for 'Yes'	0	Defined	
7	Allow modification of Configuration for Components mapped to other Maint. Operator codes?	Enter "0" for 'Not Allowed', "1" for 'Allowed'	1	Defined	
8	Automatic inheritance of Perpetual Tasks into Repair Order from Component Maintenance Program	Enter "0" for 'Not Required', "1" for 'Always Required'	1	Defined	
9					

New Process parameter to inherit Perpetual Tasks into Repair Order

## WHAT'S NEW IN ENGINEERING CHANGE MANAGEMENT?

### Ability to set task inheritance rules at Eng. schedule disposition level

Reference: APRP- 1099

#### Background

Any given MOD task can only be performed once in a component's life cycle. These MODs are sometimes initiated through a non-mandatory SB. In ITM organizations, these MODs are requested by customers in a case to case basis. ITM organizations perform these MODs based on an agreed set of rules that drives when these MODs need to be performed. These rules are usually based on the various removal conditions that the customer returns the pre MOD components. Finally based on the rules, these MOD tasks need to be inherited an auto repair order that gets created with the pre MOD component on receipt.

#### Change Details

To enable this functionality, the following new developments have been incorporated in the **Manage Engineering Document** and **Common Master** business components.

- A new **Entity Type** called **Schedule Disposition Code** has been introduced in **Define Process Entities** screen in **Common Master** business component. Each Entity defined by the user will be considered as a Schedule Disposition Code that can be used in Engineering Change Management.
- A new process parameter "**Removal Type to be considered for auto inheritance of As Required Task to Repair Order**" is introduced under the Entity Type 'Schedule Disposition Code' which will be available for every Entity created under it, with permitted values: '0' for 'Scheduled', '1' for 'Unscheduled', '2' for 'Both', '3' for 'Not Applicable'. System will only auto inherit as required engineering task to a RO if the component was received in the set Removal Type.

Removal Type to be considered for auto inheritance of As Required Task to Repair Order	
3 for Not Applicable	System will not auto inherit engineering as required task to RO based on Removal Type
2 for Both	System will auto inherit engineering as required task to RO if the component was received with removal type as scheduled or unscheduled
1 for Unscheduled	System will auto inherit engineering as required task to RO only if the component was received with removal type as unscheduled
0 for Scheduled	System will auto inherit engineering as required task to RO only if the component was received with removal type as scheduled

- A new process parameter "**Removal Condition to be considered for auto inheritance of As Required Task to Repair Order**" is introduced under the Entity Type 'Schedule Disposition Code' which will be available for every Entity created under it, with permitted values: '0' for 'Serviceable', '1' for 'Unserviceable', '2' for 'Both', '3' for 'Not Applicable'. System will only auto inherit as required engineering task to a RO if the component was received in the set Removal Condition

Removal Condition to be considered for auto inheritance of As Required Task to Repair Order	
3 for Not Applicable	System will not auto inherit engineering as required task to RO based on Removal Condition
2 for Both	System will auto inherit engineering as required task to RO if the component was received with removal type as serviceable or unserviceable
1 for Unserviceable	System will auto inherit engineering as required task to RO only if the component was received with removal type as unserviceable
0 for Serviceable	System will auto inherit engineering as required task to RO only if the component was received with removal type as serviceable

- A new process parameter **“Removal Reason to be considered for auto inheritance of As Required Task to Repair Order”** is introduced under the Entity Type ‘Schedule Disposition Code’ which will be available for every Entity created under it, with permitted values: any valid removal reason in the system. System will only auto inherit as required engineering task to a RO if the component was received in the set Removal Reason

Removal Reason to be considered for auto inheritance of As Required Task to Repair Order	
Valid Removal Reason	System will only auto inherit as required engineering task to a RO if the component was received in the set Removal Reason

- A new process parameter **“One Time auto inheritance of As Required Task to Repair Order”** is introduced under the Entity Type ‘Schedule Disposition Code’ which will be available for every Entity created under it, with permitted values: '0' for 'No' , '1' for 'Yes'. System will auto inherit as required engineering task to a RO only once if this option is enabled.

One Time auto inheritance of As Required Task to Repair Order	
1 for Yes	System will auto inherit as required engineering task to a RO only once until compliance
0 for No	System will auto inherit as required engineering task to a RO as many times as the other conditions are satisfied

- A new set option **“Rules based Inheritance of As Required tasks to Execution documents”** is introduced under Component Maintenance Program Set Options with ‘Applicable’ and ‘Not Applicable’ as two options. System will auto inherit as required engineering task to a RO based on rules configured under a schedule disposition code if this set option is enabled.

Rules based Inheritance of As Required tasks to Execution documents	
Applicable	System will auto inherit as required engineering task to a RO based on rules configured under a schedule disposition code
Not Applicable	System will not auto inherit as required engineering tasks based on schedule disposition

- A new set option **"Alert Value based inheritance of Scheduled tasks into Execution Documents"** is introduced under Component Maintenance Program Set Options with 'Applicable' and 'Not Applicable' as two options. System will auto inherit alerted task to a RO if this set option is enabled.

Alert Value based inheritance of Scheduled tasks into Execution Documents	
<b>Applicable</b>	System will auto inherit schedule tasks if it reaches alert value
<b>Not Applicable</b>	System will not auto inherit schedule tasks based on alert value

- A new set option **"Consider Schedule Dispositions for Task Inheritance rules from"** is introduced under Engineering Order Set Options with 'From Eng. Order' and 'From Impact Assessment' as two options. System will auto inherit alerted task to a RO based on schedule disposition code defined in Impact Assessment or Engineering Order based on the option set.

Consider Schedule Dispositions for Task Inheritance rules from	
<b>From Eng. Order</b>	System will consider schedule disposition for a component from Engineering Document
<b>From Impact Assessment</b>	System will consider the schedule disposition for the component from the Impact Assessment linked to the Engineering Order

- A new set option **"Default Schedule Disposition Code for Task Inheritance Rules evaluation"** is introduced under Engineering Order Set Options with 'From Eng. Order' and 'From Impact Assessment' as two options. The specified schedule disposition code will be considered as the default disposition code if a rules based inheritance is enabled and a schedule disposition is not defined.

Default Schedule Disposition Code for Task Inheritance Rules evaluation	
<b>Valid Schedule Disposition Code</b>	The specified schedule disposition code will be considered as the default disposition code if a rules based inheritance is enabled and a schedule disposition is not defined.

- If auto inheritance of as required tasks is enabled based on rules and if schedule disposition is set to be inherited from Engg. Order, Then a component received, will inherit 'As required' task from engineering orders in the components program to auto RO generated, based on the schedule disposition defined for the component in the Engineering Order and the rules setup against the schedule disposition.
- If auto inheritance of as required tasks is enable based on rules and if schedule disposition is set to be inherited from Impact Assessment, Then a component received, will inherit 'as required' task from engineering orders in the components program to auto RO generated, based on the schedule disposition defined for the component in the Impact Assessment linked to the Engineering order and the rules setup against the schedule disposition. If the same part has different schedule disposition based on customer, customer contract, sale type and removed from aircraft in the Impact Assessment, then system will consider the schedule disposition based on customer, customer contract, sale type and removed from aircraft in the Goods Inward doc.

## Provision to generate & confirm PCR/EO with Part alone and Auto Embodiment enabled

Reference: APRP-1046

### Background

This enhancement brings improvements in 'Engineering Change Management'.

- SB/AD/VSB/SIL has various effectivity criteria which are evaluated at the time of creating an MCR in the system. Any new part that is added into the system after releasing the change request does not auto embody the change.
- System needs to evaluate Eng. change for new serials of parts that did not have a serial# at the time of EO release or new parts that are added into the system after EO release.

With our existing screens there is no provision to generate PCR/EO without Serial # which will be taken care in this enhancement.

### Change Details

This enhancement speaks about the provision to generate & confirm PCR/EO with Part alone and Auto Embodiment enabled.

- PCR and EO will be enhanced to evaluate part # without serial# at the time of PCR creation or EO creation.
- This feature will help to create PCR & EO with Auto embodiment enabled without providing serial #.

#### Exhibit 1: New Process parameter addition

Set Process Parameter (Common Master)	
Entity Type	Eng. Doc Type
Entity	All Eng Doc
Process Parameter	Enable Part level MCR / EO processing ?
Permitted Values	Enter "0" for 'No', "1" for 'Yes'.
Default value	0 (No)
System behavior based on process parameter value	
0 (No)	Then system should follow the existing behavior.
1 (Yes)	System should allow user to create PCR/release EO without serial # with auto embodiment enabled.

If the process parameter "Enable Part level MCR / EO processing?" is set as "1", then user can able to create PCR/EO by providing the Part # lone, with Auto Embodiment enabled the Task which are added for that Part # will get included for all the serials which are added to that Part #. Previously system will validate if user missed the Serial #, this issues are overcome by this enhancement.

## WHAT'S NEW IN MCR?

### Applicable Customer list to MCR

APRP-1044

#### Background

This enhancement brings improvements in Engineering Change Management screens with the ability to capture the list of customers and aircraft models against Engineering Change Orders. Through this enhancement, Engineering Change Orders can be tracked at customer level as well as aircraft model level. This simplifies the implementation of EOs for an organization dealing with multiple customers owning different aircrafts.

Engineering Changes are of various kinds ranging from a Part/serial-specific change to an Aircraft model- specific change. For an organization implementing such a change on components or aircrafts, it is essential to track those changes with respect to customer requesting the change and the model against which the change is implemented. When the changes are tracked at these two levels, it becomes more convenient for the organization as well as their customers to be aware of the changes that are implemented.

For instance, when an organization has data on the number of customers implementing a specific change, it indirectly influences or reaches the other customers to weigh in the necessity for the change and implement it if really required. Model-level tracking on the other hand gives a quick picture of the models that have undergone engineering changes.

#### Change Details

Four new Controls are added in **Edit Customer List** to capture Customer and Aircraft Model data.

1. Customer #
2. Customer Name
3. Aircraft Model #
4. Model Type

Among the above four, Customer # and Aircraft Model # are editable controls that receive input in **Edit Customer List** screen while the other two will fetch Customer Name and Model Type respectively from master data. In **View Customer List** screen, all the four controls will display data from saved records. Tracking is possible at three levels namely:

1. Customer – Model level
2. Customer level
3. Model level

**Exhibit 1:** Identifies the **Edit Customer List** screen



Engineering Change Management > Maintenance Change Request > Edit Customer List

RAMCO OU-ramco role

**Edit Customer List**

MCR # / Rev. # MCR-014  
Subject MCR-014  
Manufacturer #

Revision # 1  
Source Doc Type EO

Aircraft Identification Detail  
Aircraft Identifier Type Aircraft Reg #

Customer Details

Customer # and Aircraft Model # can be entered

#	Customer #	Customer Name	Aircraft Model #	Model Type	Aircraft Identifier #	To Aircraft Identifier #
1	400007	Customer 8	0612	737-200		
2	400008	Customer 8				
3			0613			
4						

Customer – Model level  
Customer level  
Model level

Edit Customer List

Exhibit 2: Identifies the View Customer List screen

Engineering Change Management > Maintenance Change Request > View Customer List

RAMCO OU-Ramco Role

**View Customer List**

MCR # / Rev. # 123  
Subject 123

Revision # 1  
Source Doc Type AD

Aircraft Identification Detail  
Aircraft Identifier Type Manufacturer Serial #

Customer Details

Customer #, Customer Name, Aircraft Model # and Model Type are displayed

#	Customer #	Customer Name	Aircraft Model #	Model Type	Operator #	Operator Name	From Aircraft Identifier #	To Aircraft Identifier #
1	13869	SA	008-200	190-100AR	00-00	AIR		
2	1BS	HONEYWELL	008-300	190-100AR	03	KELLSTROM INDUSTRIES		
3	1GD	AIR TRANSAT	0613		0C	GENERAL ELECTRIC CANADA		
4	1MO	AAR CORP ATC	1212		0X	CS AVIATION		
5	2BU	CONDOR	1313	A310-308	0Y	OVERSEAS AIRCRAFT PARTS,		
6	2BU							
7			1313					
8					0Y			
9	2BU		1313		0Y			
10	1BS		A310		XXXXXX			

## WHAT'S NEW IN AIRCRAFT and MCR?

### Provision to enable Search based on Addl. Criteria in Re-Initialize PV, Edit, View and Revise MCR and EO

*Reference: APRP-956*

#### Background

This enhancement brings improvements in '**Aircraft and Change Request**', for an ITM vendor.

- There is a need to visualize Parameter Values of Aircraft on the basis of Aircraft Group. Currently, we do not have any provision to search based on Aircraft Group # in Re-Initialize and Update Parameter values.
- In **Edit Concurrent Requirements** screen, user is required to remember the MCR # to update them. But currently there is no help on enabled for this.
- In select screens of 'Edit/Revise/View Maintenance Change Request' Value engineer is in a need to filter out records based on "Reference Document #" which is currently not available.

#### Change Details

This enhancement speaks about addressing the above mentioned issues,

- New metadata "Aircraft Group #" will be added in 'Maint. Object Type' control, under 'Aircraft Model #' along with that a combo control is added to load the available Aircraft Groups' in the system in **Re-Initialize/ Update Parameter Values** screen.
- Help on will be enabled for MCR # column control in **Edit Concurrent Requirements** screen.
- A new combo control will be enabled for the user to search with the exact Ref. Doc. # in **Select Maintenance Change Request** screen.

User can visualize Parameter Values on the basis of Aircraft Group in **Re-Initialize/ Update Parameter Values** screen. Also usability will be improved.

## Exhibit 1: Edit Concurrent Requirements

Engineering Change Management > Maintenance Change Request > Edit Concurrent Requirements

★ Edit Concurrent Requirements

RAMCO OU-ramco role

Date Format: mm-dd-yyyy

MCR Details

MCR # / Rev. #: MC1212-11

Revision #: 1

Subject: 1

Source Doc Type: AD

Group Details

Applicability Group #

Concurrency Details

Help on is enabled for MCR #

#	MCR #	Rev	Relationship Type	Remarks
1	00001-MCR-1	1	Simultaneous	
2	0-0440-4-0001:36361_1	1	Simultaneous	
3	12389	43w	Simultaneous	
4	26MAYTEST	1	Simultaneous	
5	411-0001-25-108	1	Simultaneous	
6	ADV_RES-01	1	Simultaneous	
7	ADVTEST	1	Simultaneous	
8			Simultaneous	

## Exhibit 2: Re-Initialize / Update Parameter Values

Configuration Management > Aircraft > Re-Initialize / Update Parameter Values

★ Re-Initialize / Update Parameter Values

RAMCO OU-ramco role

Date & Time Format: mm-dd-yyyy

Search Criteria

Maint Object Type: Aircraft Group #

Parameter

Search

121

12:09:52 PM

'Aircraft Group' will be loaded under Aircraft Model #.

A new combo control will be introduced, to load Aircraft Groups available in the system.

#	Initial Value Unknown?	Present Value(Since New)	NH4	Parameter Type	Parameter Source	For
1	No	0.00	1132	Consumption		
2	No	21.00	1132	Consumption	Flight Log	
3	No	0.00	1132	Consumption		
4	No	0.00	1132	Consumption		
5	No	0.00	1132	Consumption		
6	No	0.00	1132	Consumption		
7	No	0.00	1132	Consumption		
8	No	757.30	1132	Consumption		
9	No	59.00	1132	Consumption	Flight Log	
10	No		1132	Consumption	Flight Log	
11	No	0.00	1132	Consumption	Flight Log	
12	No					

## Exhibit 3: Edit Maintenance Change Request

Engineering Change Management > Maintenance Change Request > Select Maintenance Change Request

★ Select Maintenance Change Request

RAMCO OU-ramco role

Search Criteria

MCR #

Source / Doc Type

Additional Search

ATA #

Aircraft Model #

Ref. Doc. #

Status: Fresh

Subject

Applicability: Component

Manufacturer Name

Part #

A new combo control "Ref. Doc. #" will be added

Search Results

#	Revision #	Status	Doc Type	Source	Regulatory Authority
1	3	Fresh	AD	External	00-00

## Exhibit 4: Revise Maintenance Change Request

Engineering Change Management > Maintenance Change Request > Select Maintenance Change Request

★ Select Maintenance Change Request

RAMCO OU-ramco role

Search Criteria

MCR #

Source / Doc Type

Additional Search

Aircraft Model #

ATA #

Ref. Doc. #

Manufacturer Name

Source Doc Type

Applicability

Part #

Subject

Search Results

1 - 2/2

#	MCR #	Subject	Revision #	Source Doc Type	Source
1	1T11	t	2	AD	External
2	1T11	t	5	AD	External

A new combo control "Ref. Doc. #" will be added

## Exhibit 5: View Maintenance Change Request

Engineering Change Management > Maintenance Change Request > Select Maintenance Change Request

★ Select Maintenance Change Request

RAMCO OU-ramco role

Search Criteria

MCR #

Source / Doc Type

ATA #

Issue Date - From

Part #

Additional Search

Status

Subject

Manufacturer Name

Applicability

Aircraft Model #

Ref. Doc. #

Search Results

1 - 6/6

#	MCR #	Subject	Revision #	Source Doc Type	Source
1	1T11	t	1	AD	External
2	1T11	t	2	AD	External
3	1T11	t	3	AD	External
4	1T11	t	4	AD	External
5	1T11	t	5	AD	External
6	MCR-REF-003	testing	3	AD	External

A new combo control "Ref. Doc. #" will be added

## WHAT'S NEW IN ENGINEERING DOCUMENT?

### Provision to View Approved Impact Assessments

APRP-1305

#### Background

Impact Assessment was a new document introduced which aids to assess impacted Customers who have an agreed for servicing of a part which happens to be applicable for an engineering document. The Impact assessment document carries the quantity that is agreed to be serviced/sold to the customer post the engineering document application and the billable rate for the same. Thus, it is subjected to Customer Approval. This enhancement solves the issue of not having a way to review already approved Impact Assessments with a quick filter tile and rather always having to use a details search filter. While the Approvals were already in place, there was no specific quick filter tile to review the Approved/Rejected Impact Assessments easily.

#### Change Details

This enhancement details on the provision to view Approved and Rejected Impact Assessments along with other Pending approvals.

- Two new tiles "Approved Assessments" and "Rejected Assessments" are added in **Select Documents for Processing** screen.
- Approved Assessment tile is added to fetch all the records which are set as "Approved" or "Approval not required".
- Rejected Assessment tile is added to fetch all the records which are defined to be rejected at any one approval.

#### Exhibit 1: Component Removal Dashboard

Approved Assessment tile is added to fetch all the records which are set as "Approved" or "Approval not required"

Rejected Assessment tile is added to fetch all the records which are defined to be rejected at any one approval.

**Approved Assessment:** System will consider if any of the following: "Internal Approval, Engineering Approval, and Customer Approval" is set as 'Approved' or they are set as 'Not required'.

**Rejected Assessment:** System will consider if any of the following: "Internal Approval, Engineering Approval, and Customer Approval" is set as Rejected. If any one option is set as 'Approved' or 'Not required', system will give priority to Rejected.

## Ability to manage customer MOD compliance tracking based on issue & billing of upgraded part

Reference: APRP-252

### Background

Impact Assessment was a new document which was introduced in product to allow a Customer wise analysis to identify those Customers who have been agreed with a contract to provide certain parts which be impacted by the Engineering MOD document being processed. The final outcome of Impact Assessment was a Customer approval for the engineering document with the agreed quantity of Parts to be supplied at a fixed/variable rate along with a program based on which the Engineering MOD would be applied on to the components. While this structure is already established in product, the downstream tracking of this agreed quantity and a check on the billed value and quantity was yet to be done.

This enhancement concentrates on tracking the compliance of an Engineering document for the agreed quantity and billable value under the agreed program.

### Change Details

#### *Track MOD Compliance for Customer Contracts*

A new activity called **Track MOD Compliance for Customer Contracts** has been introduced under **Engineering Document** business component.

The UI is designed to list all Customer approved Impact Assessment rows along with the Task information from the corresponding Engineering Order. The following quantities will be tracked against the Agreed/Approved Quantity;

1. Issued Quantity
2. Pending Quantity
3. Received Quantity
4. Planned Repair Quantity
5. In-Repair Quantity

And finally 'Billed Quantity' gets tracked against the 'Agreed Billable quantity'.

- MOD Compliance is tracked based on Advance exchange transactions
- MOD Compliance Tracking can be initiated manually from this UI, meaning only on initiation system will consider the EO for auto task inheritance to RO and qty will get automatically counted for compliance. Else, based on a parameter, compliance tracking can be initiated automatically upon EO release itself.
- Issued quantity for a Part gets counted based on the latest MOD of the issued component. A parameter controls if Issue should be counted only if latest MOD of Issued component is the post MOD mapped in the respective Engineering Order.
- Similarly, Billing quantity also gets counted based on latest MOD of issued component. Billing can be done only if the issued component against the received & repaired unserviceable unit was of post MOD in respective EO, again, based on a parameter.
- Each quantity displayed in this UI is a hyperlink and can be clicked to launch a UI with list of documents

which were counted to show the eligible count. For example – Issued quantity can be clicked to see the list of Issues and In-Repair qty to see the list of Repair Orders.

### Exhibit 1: Track MOD Compliance & Tracking

**Track MOD Compliance for Customer Contracts**

Search Criteria:

Doc. Reference: [ ] Part #: [ ] Customer #: [ ]  
 Date Reference: [ ] Sch. Disposition: [ ] Contract #: [ ]  
 MOD Reference: [ ] Status: [ ]

☒ Customer Level Compliance ☐ Overall Compliance

Search

**MOD Compliance**

#	Eng. Doc. #	Impact Assessment #	Part #	Customer #	Contract #	Approved Qty.	Issued Qty.	Pending Qty.	Received Qty.	Plan Repair Qty.	In-Repair Qty.	Complied Qty.
1	EO-000719-2020	MOD-COMPL-01	00001	400006	GMRSWOP	2.00	0.00	2.00	0.00	0.00	0.00	0.00
2	EO-000723-2020	ENG100-MCR-1A	000-99999	400007	haepr	4.00	0.00	4.00	0.00	0.00	0.00	0.00
3	EO-000723-2020	ENG100-MCR-1A	000-99999	400007	haepr	4.00	0.00	4.00	0.00	0.00	0.00	0.00
4	EO-000723-2020	ENG100-MCR-1A	000-99999	400007	haepr	4.00	0.00	4.00	0.00	0.00	0.00	0.00
5	EO-000723-2020	ENG100-MCR-1A	000-99999	400007	PA1	3.00	0.00	3.00	0.00	0.00	0.00	0.00

Update Info. Force Close

Click on Qty to launch list of documents

Engineering Document -> Track MOD Compliance for Customer Contracts | Last Login on 2020/Nov/01 at 19:08:10 | (Server: 0.488 / Client: 0.484) | No error(s) | 41 Minute(s) | 7:40 PM

### Exhibit 2: Track MOD Compliance & Tracking – Quantity Reference Details

**Qty. Reference details**

Details of 729208:99167  
 Customer Ref. # 1

Eng. Doc # EO-001113-2020  
 Customer Details 400007

Impact Assessment MCR-2409\_2  
 Sale Contract HaecoTestContract1

#	Document #	Customer Order #	Aircraft	Part #	Part Description	Serial #	MOD Info.	Date Reference	TSW	CSW
1	GI-012127-2020	CO-009181-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-6	2	09-24-2020		
2	GI-012129-2020	CO-009183-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-7		09-24-2020		
3	GI-012130-2020	CO-009185-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-8	2,3	09-24-2020		
4	GI-012133-2020	CO-009188-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-11		09-25-2020		
5	GI-012134-2020	CO-009189-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-12		09-25-2020		
6	GI-012136-2020	CO-009191-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-14		09-25-2020		
7	GI-012135-2020	CO-009192-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-13		09-25-2020		
8	GI-012136-2020	CO-009191-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-14		09-25-2020		
9	GI-012141-2020	CO-009207-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-15		09-28-2020		
10	GI-012144-2020	CO-009208-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-16	2,3	09-29-2020		
11	GI-012145-2020	CO-009212-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-17	2,3	09-29-2020		
12	GI-012150-2020	CO-009213-2020		729208:99167	ELECTRICAL IDG HARNESS	ser-18		09-29-2020		

## Provision to define Maint. Operator at Engineering document level and update the applicable Aircraft Program based on Maint. Operator

Reference: APRP-273

### Background

In a global organization using one program to manage maintenance schedules of aircrafts and components across different regions, there is a need to author region specific tasks from an EO. Hence when the task updates the program, it needs to get updated in active or inactive status based on the region in which the Maint. Object is present.

Since one EO accessible across all regions will be used to manage a particular change applicable to a specific region, there is a need for user level security based on Maintenance Operator in EO.

### Change Details

To enable this functionality, the following new developments have been incorporated in the **Engineering Document** business component:

- A new process parameter **"Allow addition/modification of Aircraft & Component from other Maint. Operator codes in EO?"** has been added in the **Define Process Parameters** activity of the **Common Master** business component. Entity Type: Eng. Doc Type, Entity: All Eng Doc, Permitted values: 0 (No) ; 1 (Yes)
- If the above listed set options are set as 'No' then system will prevent user who are not mapped to the MO of the Maint. Object from adding or modifying the Maint. Object in the effectivity tab. If the above set option is set as 'Yes' then the system will not restrict any user.

Allow addition/modification of Aircraft & Component from other Maint. Operator codes in EO?	
<b>1 for Yes</b>	It allows the addition/modification of Maint. Objects mapped to other Maint. Operator codes in EO
<b>0 for No</b>	It does not allow the addition/modification of Maint. Objects mapped to other Maint. Operator codes in EO

Default: '1' Yes

- A new process parameter **"Allow addition/modification of tasks from other Maint. Operator codes in EO?"** has been added in the **Define Process Parameters** activity of the **Common Master** business component. Entity Type: Eng. Doc Type, Entity: All Eng Doc, Permitted values: 0 (No) ; 1 (Yes)
- If the above listed set options are set as 'No' then system will prevent user who are not mapped to the MO of the Task from adding or modifying the Task in the Task tab. If the above set option is set as 'Yes' then the system will not restrict any user.

Allow addition/modification of tasks from other Maint. Operator codes in EO?	
<b>1 for Yes</b>	It allows the addition/modification of tasks mapped to other Maint. Operator codes in EO
<b>0 for No</b>	It does not allow the addition/modification of tasks mapped to other Maint. Operator codes in EO



**Default: '1' Yes**

- A new editable control called Maint. Operator has been added in the task tab of Engineering Order. When a new task is being authored or an existing task is being revised, one Maint. Operator can be mapped to the task from EO. On release of EO, the task's effectivity gets updated with the Maint. Operator code specified in the EO.
- A new process parameter **"Auto Activation/Inactivation of schedule status of Eng. Doc. tasks in AMP based on Maint. Operator?"** has been added in the **Define Process Parameters** activity of the **Common Master** business component. Entity Type: Eng. Doc Type, Entity: All Eng Doc, Permitted values: 0 (No) ; 1 (Yes)
- Is the above set option is set as 'Yes' system will automatically update all tasks that belong to the MO of the Aircraft that it updates in Active Status and all other tasks in Inactive Status. If it is set as 'No' system will retain its existing behavior when it comes to task update to aircraft program from EO.

<b>Auto Activation/Inactivation of schedule status of Eng. Doc. tasks in AMP based on Maint. Operator?</b>	
<b>1 for Yes</b>	System will auto activate or inactivate tasks released from EO in AMP based on Maint. Operator
<b>0 for No</b>	System will not auto activate or inactivate tasks released from EO in AMP based on Maint. Operator

**Default: '1' No**

- A new process parameter **"Auto Activation/Inactivation of schedule status of Eng. Doc tasks in CMP based on Maint. Operator?"** has been added in the **Define Process Parameters** activity of the **Common Master** business component. Entity Type: Eng. Doc Type, Entity: All Eng Doc, Permitted values: 0 (No) ; 1 (Yes)
- Is the above set option is set as 'Yes' system will automatically update all tasks that belong to the MO of the Component that it updates in Active Status and all other tasks in Inactive Status. If it is set as 'No' system will retain its existing behavior when it comes to task update to component program from EO.

<b>Allow addition/modification of tasks from other Maint. Operator codes in EO?</b>	
<b>1 for Yes</b>	System will auto activate or inactivate tasks released from EO in CMP based on Maint. Operator
<b>0 for No</b>	System will not auto activate or inactivate tasks released from EO in CMP based on Maint. Operator

**Default: '1' No**

- A new process parameter **"Update Maint. Operator Effectivity to task on release of EO?"** has been added in the **Define Process Parameters** activity of the **Common Master** business component. Entity Type: Eng. Doc Type, Entity: All Eng Doc, Permitted values: 0 (No) ; 1 (Yes)
- If the above set option is set as 'No' then system will not update the Maint. Operator effectivity to New and Improved task upon release of EO.

Update Maint. Operator Effectivity to task on release of EO?	
1 for Yes	System updates the Maint. Operator Effectivity of a New or Improvised Task on release of EO
0 for No	System does not update the Maint. Operator Effectivity of a New or Improvised Task on release of EO

Default: '1' No

**Exhibit 1:** Indicates the new controls in the **Manage Eng. Document** screen

The screenshot shows the 'Manage Eng. Document' screen. The sidebar on the left contains a search bar and a list of engineering documents. The main area displays a table of tasks. A red box highlights the 'Maint. Operator #' column, and a yellow callout bubble points to it with the text 'New control added'.

#	Category	Task Type	Maint. Operator #	Operation Type	WBS Code	Task C
1	A310	MOD	GOFM	FLIGHT OPS	3-OPER	New
2				FLIGHT OPS		New

## WHAT'S NEW IN FLIGHT LOG?

### Ability to View Parameter Reading recorded for a Closed Task in View AME page

*Reference: APRP-705*

#### Background

Unable to review/check the value recorded in **Record Parameter Reading/Cond.Eval.Form** in **Work Reporting Hub** or in **Record Aircraft Maintenance Execution Details** screen, once the work package is closed. Need to review parameter readings after a Work Package is closed.

#### Change Details

##### View Work & Sign-Off Information

A new UI **View Parameter Reading/Eval. Form** is added as a link in **View Work & Sign-Off Information** screen. This new screen provides the ability to view the parameter recordings done for a task in a package.

**View Parameter Reading/Eval. Form** - This screen has two different tabs: **Parameter Reading Details** and **Conditional Maint. Evaluation** to view the Parameter and Evaluation details of a task recorded in execution in a package, respectively. This screen will list down only the tasks having parameter recordings done in a Package. This screen will have the Execution details section, Task Details and Component Details section.

**Parameter Reading Details** tab will have all the necessary information as a multiline, regarding the parameter details of a task in a package. **Conditional Maint. Evaluation** will have all the evaluation details of a parameter against a task in a package.

Exhibit 1: Identifies the new link in View Work &amp; Sign-Off Information screen

**View Work & Sign-off Information**

Execution Ref # Line Package LP-000045-2019 Status In-Progress  
Aircraft Reg. # 1133 Log #

Discrepancy #  Get Details Discrepancy Description

**Work Execution Details**

#	Task #	Task Description	Execution Status	Task Type	ATA #	Sign-Off Info.	RII Sign-Off
1	Test1	Test1	In-Progress	MOD	00-00	Pending	Pending RII Sig
2	0000-876-0008002	Inspection Checklist	In-Progress	MPD		Pending	Pending RII Sig
3	DP59182	Fissure in the wing tip	In-Progress			Pending	Pending RII Sig
4	0000-876-0007996	Aircraft Inspection	Completed	MPD		Signed - Off	N
5	DRTSK-01	task1	Completed	MOD	00-00	Signed - Off	N

View Sign Off History View Comments Information View Associated Doc. Attachments Print Task/Discrepancy Card View Parameter Reading/Eval. Form

**Work Unit Sign-off Information**

Line #  Display Option Subtask level

Resource Group

Exhibit 2: Identifies the Parameter Reading Details tab in View Parameter Reading/Eval. Form screen

**View Parameter Reading / Eval Form**

Exe.Doc. Type/Ref # Line Package LP-000045-2019 Work Center # 185-20 Aircraft Reg. # 1133

**Task/Sub-Task Details**

Task #  Task Description CFM56-5A AVEOS 72-41 FULL OVERHAUL WORKSCOPE IEC PME  
Sub Task Seq. #  Sub Task Description

**Component Details**

Part # 9324M13G01:07482 Serial # MSN-004893-20  
Mfr. Part # 9324M13G01 Mfr. Serial # MSN-004893-20 Mfr. # 07482

**Parameter Reading Details** Conditional Maint. Evaluation

#	Line	Task #	Parameter	D+	Value/Eval. Response	Permitted Value	Sub Task Seq	Sub Task Description	Part #	Serial #	Task
1	3	1-CFM565A-724100-FOH-10000002	PASSFAIL		pass	PASS, FAIL			9324M13G01:07482	MSN-004893-20	CFM56-5A AVEOS 72-41 FULL OVERHAUL WORKSCOPE IEC PME
2	2	1-CFM565A-724100-FOH-10000002	FD		10	1,4,10			9324M13G01:07482	MSN-004893-20	CFM56-5A AVEOS 72-41 FULL OVERHAUL WORKSCOPE IEC PME
3	1	1-CFM565A-724100-FOH-10000002	EH		7				9324M13G01:07482	MSN-004893-20	CFM56-5A AVEOS 72-41 FULL OVERHAUL WORKSCOPE IEC PME

New screen, showing the parameter recorded for Tasks in a Package in Parameter Reading Details tab

Exhibit 3: Identifies the Conditional Maint. Evaluation tab in View Parameter Reading/Eval. Form screen

The screenshot displays the 'View Parameter Reading / Eval Form' interface. The top navigation bar shows the path: Flight Operations > Flight Log > View Parameter Reading / Eval Form. The main header area includes the title 'View Parameter Reading / Eval Form' and a user role 'RAMCO OU-ramco role'. Below this, the 'Execution Details' section shows 'Exe.Doc. Type/Ref #', 'Line Package' (LP-000045-2019), 'Work Center #' (185-20), and 'Aircraft Reg. #' (1133). The 'Task/Sub-Task Details' section shows 'Task #' (1-CFM565A-724) and 'Task Description' (CFM56-5A AVEOS 72-41 FULL OVERHAUL WORKSCOPE IEC PME). The 'Component Details' section shows 'Part #' (9324M13G01:07482), 'Serial #' (MSN-004893-20), 'Mfr. Part #' (9324M13G01), 'Mfr. Serial #' (MSN-004893-20), and 'Mfr. #' (07482). The 'Parameter Reading Details' section is active, showing the 'Conditional Maint. Evaluation' tab. A table below this tab displays the evaluation data for the selected task.

#	Line #	Task #	Part #	Serial #	Sub Task Seq. #	Sub Task Description	Task Description
1		1-CFM565A-724100-FOH-10000002	9324M13G01:07482	MSN-004893-20			CFM56-5A AVEOS 72-41 FULL OVERHAUL WORKSCOPE IEC PME

New screen, showing the evaluation recorded for Tasks in a Package in Conditional Maint. Evaluation tab

## Capture a minimum of 50 line level parameters in Flight Log

Reference: APRP-256

### Background

This enhancement brings improvements in 'Flight Log', for an Airline operator. Journey log being platform where user can record a range of information that includes delays, ground service, crew, fuel, waypoint etc. Currently the system can capture up to certain line level parameters and there is a need that the customers can use up to 50 line level parameters. With our existing framework there is no provision to capture such information which has been taken care with this enhancement.

### Change Details

This enhancement speaks about the provision to capture a minimum of 50 line level parameters, to address this, a new popup **Manage Add'l Journey Parameters** will be developed to capture additional parameters at a journey leg level.

Manage Add'l Journey Parameters will be added as a link in the below mentioned screens,

- 1) Create Journey Log
- 2) Edit Journey Log
- 3) Amend Journey Log
- 4) View Journey Log

This gives the ability for the user to review the assessment dashboard from various screens instead of traversing to Component Removal Assessment Dashboard.

### Exhibit 1: Create Journey Log

The screenshot shows the 'Create Journey Log' form. The 'Log Details' section includes fields for Journey Log #, Flight Date (06-11-2020), Status, Rep. Time Zone, Aircraft Reg. # (VT-666), Starting Station (AIR), Flight Ops. Type (Regular), and Log #. The 'Log Reference Details' section includes Aircraft Model # (A310), Configuration Class (A1-707), Manufacturer Serial # (98456875), Total Flight Hours (539.14), HRS, FH Log Mode, Actual Flight Time, and Last Journey Log # (JL000004). The 'Leg Details' section is a multiline table with columns: #, Line #, Flight #, Leg #, Dep. STN, Arr. STN, Dep. Date, Dep. Time, Take Off Date, Take Off Time, and Landing Time. A yellow callout box points to a new link 'Manage Add'l Journey Parameters' located below the Leg Details multiline table.

#	Line #	Flight #	Leg #	Dep. STN	Arr. STN	Dep. Date	Dep. Time	Take Off Date	Take Off Time	Landing Time
1								06-10-2020	08:00	10:00
2										

Manage Add'l Journey Parameters

## Exhibit 2: Edit Journey Log

Flight Operations > Flight Log > Edit Journey Log

RAMCO OU-ramco role

Date Format: mm-dd-yyyy HH:MM/HHMM

**Log Details**

Journey Log # JL00000010 Flight Date 08-05-2020 Status Fresh Rep. Time Zone IST  
 Aircraft Reg. # VT-666 Starting Station MAD Flight Ops. Type Regular  
 Flight Category Journey Log Category Log # L Flight Status On Schedule

**Log Reference Details**

**Leg Details** Summary Parameter Details

Leg Details

#	Line #	Flight #	Leg #	Dep. STN	Arr. STN	Dep. Date	Dep. Time	Take Off Date	Take Off Time	Landing Time
1								08-05-2020		
2								08-05-2020		
3										

A new link "Manage Add'l Journey Parameters" is added below the Leg Details multiline.

Manage Add'l Journey Parameters

## Exhibit 3: Amend Journey Log

Flight Operations > Flight Log > Amend Journey Log

RAMCO OU-ramco role

Date & Time Format: mm-dd-yyyy HH:MM/HHMM

**Log Details**

Journey Log # JL-0003402013 Flight Date 06-10-2020 Status Under Amendment Rep. Time Zone IST  
 Aircraft Reg. # VT-666 Starting Station 101 Flight Ops. Type Regular Journey Log Category  
 Flight Category Accident Amendment # 1 Log # Flight Status On Schedule

**Log Reference Details**

**Leg Details** Summary Parameter Details

Leg Details

#	Line #	Flight #	Leg #	Dep. STN	Arr. STN	Dep. Date	Dep. Time	Take Off Date	Take Off Time	Landing Time
1	1			101		06-10-2020		06-10-2020	01:00	02:00
2										

A new link "Manage Add'l Journey Parameters" is added below the Leg Details multiline.

Manage Add'l Journey Parameters

## Exhibit 4: View Journey Log

Flight Operations > Flight Log > View Journey Log

RAMCO OU-ramco role

Date Format: mm-dd-yyyy h:mm:ss am/pm

**Log Details**

Journey Log # JL-0003402013 Flight Date 06-10-2020 Status Under Amendment Rep. Time Zone IST  
 Aircraft Reg. # VT-666 Starting Station 101 Flight Ops. Type Regular Execution Ref. #  
 Flight Category Accident Amendment # 1 Journey Log Category Log #

**Log Reference Details**

**A / C Details** **Total Times** **Last Journey**

Configuration Class A1-707 Total Flight Hours 539.14 HRS FH Log Mode Actual Flight Time Last Journey Log # JL-0003352013  
 Manufacturer Serial # 98456875 Total Flying Cycles 356 CYC Hobbs Meter Reading Hobbs Re-set? Last Journey Log Status Approved  
 Aircraft Model # A310

**Leg Details** Summary Parameter Details

Leg Details

#	Line #	Flight #	Leg #	Dep. STN	Arr. STN	Dep. Date	Dep. Time	Take Off Date	Take Off Time	Landing Time	Arr. Date
1	1			101		06-10-2020	01:00	06-10-2020	01:00	02:00	06-10-2020

A new link "Manage Add'l Journey Parameters" is added below the Leg Details multiline.

Manage Add'l Journey Parameters

## Exhibit 5: Manage Add'l Journey Parameters

Flight Operations > Flight Log > Manage Add'l Journey Parameters

★ Manage Add'l Journey Parameters

RAMCO OU-ramco role

☒ Journey Leg Level ☐ Journey Level

**Journey Details**

Journey Log: JL700000010 Amendment #: 0 Aircraft Reg. #: VT-666 Aircraft Model #: A310 Flight Category: Rep. Time Zone: IST  
 Flight Date: 08-05-2020 Journey Log Category: Flight Ops. Type: Regular Log #: L

**Journey Leg Details**

Line #: 1   
 From Station: MAD From Date/Time: 08-05-2020 12:00:00 AM To Station: 101 To Date/Time: 08-05-2020 01:00:00 AM  
 Leg #: Flight #: Flight Status: On Schedule

**Parameters**

#	Leg-wise Parameter	Parameter	Parameter Desc.	Value	UoM	Update Mode	Position Code #	Mandatory
1	<input checked="" type="checkbox"/> PARAMETER7	PARAM1251	mjukim		AM	Delta		Non-Mandatory
2	<input checked="" type="checkbox"/> PARAMETER8	Not Updateable						
3	<input checked="" type="checkbox"/> PARAMETER9	PF	PF		AM	Delta		Non-Mandatory
4	<input checked="" type="checkbox"/> PARAMETER10	TP11	Test Parameter 11		BG	Delta		Mandatory
5	<input checked="" type="checkbox"/> PARAMETER11	TP12	Test Parameter 12		DM	Delta		Non-Mandatory
6	<input checked="" type="checkbox"/> PARAMETER12	TP13	Test Parameter 13		DL	Delta		Non-Mandatory
7	<input checked="" type="checkbox"/> PARAMETER13	TP14	Test Parameter 14					
8	<input checked="" type="checkbox"/> PARAMETER14	TP15	Test Parameter 15					
9	<input checked="" type="checkbox"/> PARAMETER15	TP16	Test Parameter 16					
10	<input checked="" type="checkbox"/> PARAMETER16	TP17	Test Parameter 17					

A new UI "Manage Add'l Journey Parameters" is added to capture 50line level parameters

**Manage Add'l Journey Parameters** can be used to add Leg-wise Parameters at each Line #. Those parameters can be captured at both Leg and Journey level.



## WHAT'S NEW IN COMPONENT REPLACEMENT?

### Nose # Search in Record CR, Edit CR and Amend CR

Reference: APRP-945

#### Background

Some of the organization uses actual Manufacturer serial # in Aircraft Reg. # field and Actual tail # will be in Nose # field. So mechanic will be more familiar with Actual tail #. Hence, provision to search the Aircrafts based on the Nose # is enabled in select screen of Record, Edit and Amend CR screens.

#### Change Details

##### Record Component Replacement Details

In Select Part # screen of **Record Component Replacement** Details screen, for the control Aircraft Reg # in Search Criteria section smart search is enabled and enhanced to accept the input as Nose # and suggest Aircraft Reg # based on the Nose #. Even partial match also allowed.

##### Edit Component Replacement Details

In Select Component Replacement # screen of **Edit Component Replacement Details** screen, for the control Aircraft Reg # in Search Criteria section, smart search is enabled and enhanced to accept the input as Nose # and suggest Aircraft Reg # based on the Nose #. Even partial match also allowed.

##### Amend Component Replacement Details

In Select Component Replacement # screen of **Amend Component Replacement Details** screen, for the control Aircraft Reg # in Search Criteria section, smart search is enabled and enhanced to accept the input as Nose # and suggest Aircraft Reg # based on the Nose #. Even partial match also allowed.

**Exhibit 1:** Identifies the **Smart Search** enabled control in **Select Part #** screen of **Record Component Replacement** Details screen.

The screenshot displays the 'Select Part #' screen within the 'Record Component Replacement' details. The 'Search Criteria' section includes fields for 'Aircraft Reg #', 'Position Code', 'Removed Part #', and 'Component #'. A red box highlights the 'Aircraft Reg #' field, and a yellow callout box points to it with the text 'Smart Search is enabled'. To the right, there are fields for 'Aircraft Model #', 'Part Description', 'Removed Serial #', and 'Component Type'. Below the search criteria is a 'Search' button. The 'Search Results' section shows a table with columns: '#', 'Aircraft Reg #', 'Position Code', 'Removed Part #', 'Removed Serial #', and 'Part Description'. The table currently displays 'Found no rows to display!!!'.

**Exhibit 2:** Identifies the **Smart Search** enabled control in **Select Component Replacement #** screen of **Edit Component Replacement Details** screen

The screenshot shows the 'Select Component Replacement #' screen. The 'Search Criteria' section includes fields for 'Component Replacement #', 'Aircraft Reg #', 'Removed Part #', 'Component #', and 'Removal From Date'. A red box highlights the 'Aircraft Reg #' field, and a yellow callout points to it with the text 'Smart Search is enabled'. The 'Search' button is located below the search criteria. The 'Search Results' section shows a table with columns: '#', 'Component Replacement #', 'Status', 'Aircraft Reg #', 'Position Code', and 'Removed Component #'. The table is currently empty, displaying 'Found no rows to display!!!'.

**Exhibit 3:** Identifies the **Smart Search** enabled control in **Select Component Replacement #** screen of **Amend Component Replacement Details** screen

The screenshot shows the 'Select Component Replacement #' screen. The 'Direct Entry' section includes a 'Component Replacement #' field and a link 'Amend Component Replacement Details'. The 'Search Criteria' section includes fields for 'Component Replacement #', 'Status', 'Removed Part #', 'Part Description', 'Removal From Date', 'Installation From Date', 'Aircraft Reg #', 'Position Code', 'Removed Serial #', 'Removal To Date', and 'Installation To Date'. A red box highlights the 'Aircraft Reg #' field, and a yellow callout points to it with the text 'Smart Search is enabled'. The 'search' button is located below the search criteria. The 'Search Results' section shows a table with columns: '#', 'Component Replacement #', 'Status', 'Aircraft Reg #', 'Position Code', and 'Removed Component #'. The table is currently empty, displaying 'Found no rows to display!!!'.

## WHAT'S NEW IN COMPONENT REPLACEMENT AND DISCREPANCY PROCESSING?

### Nose # Search in Bulk CR, View CR and View Discrepancy

Reference: APRP-944

#### Background

Some of the organization uses actual Manufacturer serial # in Aircraft Reg. # field and Actual tail # will be in Nose # field. So mechanic will be more familiar with Actual tail #. Hence, provision to search the Aircrafts based on the Nose # is enabled in Manage Bulk CR, select screen of View CR and View Discrepancy screens.

#### Change Details

##### Manage Bulk Component Replacement

In **Manage Bulk Component Replacement** screen, for the control A/C Reg # in Primary Search Criteria section, smart search is enabled and enhanced to accept the input as Nose # and suggest Aircraft Reg # based on the Nose #. Even partial match also allowed.

##### View Component Replacement Details

In Select Component Replacement # screen of **View Component Replacement Details** screen, for the control Aircraft Reg # in Search Criteria section, smart search is enabled and enhanced to accept the input as Nose # and suggest Aircraft Reg # based on the Nose #. Even partial match also allowed.

##### View Discrepancy

In Select Discrepancy screen of **View Discrepancy** screen, for the control Aircraft Reg # in Search Criteria section, smart search is enabled and enhanced to accept the input as Nose # and suggest Aircraft Reg # based on the Nose #. Even partial match also allowed.

**Exhibit 1:** Identifies the **Smart Search** enabled control in **Manage Bulk Component Replacement** screen

The screenshot displays the 'Manage Bulk Component Replacement' interface. The 'Primary Search Criteria' section includes a text input field for 'A/C Reg #' which is highlighted with a red rectangular box. A yellow callout box with a black border points to this field, containing the text 'Smart Search is enabled'. Other fields in the 'Primary Search Criteria' section include 'Object Type', 'Exe. Ref. #', 'Task #', 'Replacement Status', 'Removal Disposition', 'Record Mode', 'A/C Position #', 'From / To Date & Time', 'Attached Part # / Serial #', and 'Removed Part # / Serial #'. Below this section is the 'Component Replacement Details' table, which is currently empty, showing a message '[No records to display]'. The table has columns for '#', 'Message Center', 'Status', 'Source', 'Exe. Doc.', 'Exe. Ref. #', 'Seq #', 'Tracking #', 'Task #', 'Exe. Work Center #', 'Object Type', and 'Rem. Part #'. At the bottom of the screen are 'Save' and 'Confirm' buttons.

**Exhibit 2:** Identifies the **Smart Search** enabled control in **Select Component Replacement #** screen of **View Component Replacement Details** screen.

The screenshot shows the 'Select Component Replacement #' screen. The 'Search Criteria' section includes fields for Component Replacement #, Aircraft Reg # (highlighted with a red box), Removed Part #, Part Description, Removal From Date, Installation From Date, and SOS Disposition. A yellow callout bubble points to the 'Aircraft Reg #' field with the text 'Smart Search is enabled'. The 'Search Results' section shows a table with columns: Component Replacement #, Status, Aircraft Reg #, Position Code, Removed Component #, and Removed Part #. The table is currently empty, displaying 'Found no rows to display!!!'.

**Exhibit 3:** Identifies the **Smart Search** enabled control in **Select Discrepancy** screen of **View Discrepancy** screen.

The screenshot shows the 'Select Discrepancy' screen. The 'Search Criteria' section includes fields for Search ID, Discrepancy #, Discrepancy Description, Record Status, Source Doc. Type, and Reported Date From / To. A yellow callout bubble points to the 'Aircraft Reg #' field with the text 'Smart Search is enabled'. The 'Search Results' section shows a table with columns: Aircraft Reg #, Part #, Part Serial #, Squawk#, Log Item #, Discrepancy Description, and Corrective Action. The table is currently empty.

## WHAT'S NEW IN RELIABILITY ANALYSIS?

### Set NFF alert rules based on additional options

*Reference: APRP-1049*

#### Background

This enhancement brings improvements to Reliability Alert Definition business component in terms of flexibility to define alert rules for NFF. For performing component Reliability Analysis on NFF, alert rules depending on the business operations. While various options based on NFF count, and NFF rate has already been provided, a few more options were requested for a varying time frame.

#### Change Details

##### *Define Rules*

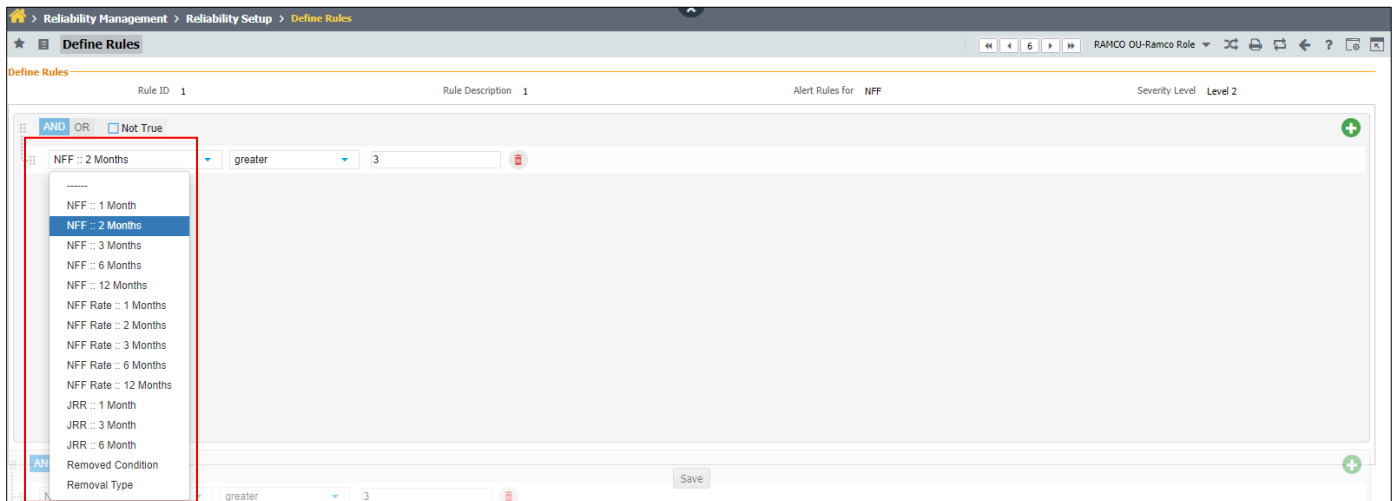
In **Manage Reliability Alert Definition**, while setting Alert Rules for NFF, in Define Rules screen, three additional values are added to the first combo:

6. NFF :: 2 Months
7. NFF :: 12 Months
8. NFF Rate :: 2 Months

Conditional operators available:

1. greater
2. greater or equal
3. less
4. less or equal
5. equal
6. not equal

On selecting NFF :: 2 Months or NFF :: 12 Months and a conditional operator, a value can be entered in the third control which is an editable control that accepts numeric values.

**Exhibit 1:** Define Rules – New additional values**Logic for NFF auto categorization*****Via Goods Inward – On Initial Assessment***

If the set option "NFF confirmation for Components based on" is set as "Initial Assessment", the Confirmed NFF flag is updated as 'Yes' on completion of Good Inward.

***Via Goods Inward – On Post Repair Confirmation for Repair Order***

If the set option "NFF confirmation for Components based on" is set as "Post Repair Confirmation", system will check "Confirmed NFF" as "yes" based on the following options if part is sent for repair via a Repair Order:

\*\* Manage Repair Quote - Status "Completed"

If the set option "Event for NFF confirmation for Components sent on External Repair" is set as "Repair Quote Completion" (or)

\*\* Work Shop - Status "Completed"

If the set option "Event for NFF confirmation for Components sent on External Repair" is set as "Work Shop Completion" (or)

\*\*Goods Inward - Status "Completed"

If the set option "Event for NFF confirmation for Components sent on External Repair" is set as "RO Closure" if the component is identified as "NFF" in Work shop.

***Via Goods Inward – On Post Repair Confirmation for Shop Work Order***

If the set option "NFF confirmation for Components based on" is set as "Post Repair Confirmation", system to check "Confirmed NFF" as "yes" based on the following options if part is sent on SWO for repair :

\*\* Shop Work Order - Status "Completed"

If the set option "Event for NFF confirmation for Components sent on Internal Repair" is set as "Work Order Completion" (or)

\*\* Shop Work Order - Status "Closed"

If the set option "Event for NFF confirmation for Components sent on Internal Repair" is set as "Work Order Closure"

***Formula for evaluating NFF Rate***

NFF rate over a given period

$$= (\text{Count of NFF identified at the given period} * 100) / (\text{No. of U/S Removals})$$

*\* U/S Removals – Unscheduled Removals*

If the NFF rate evaluated from given formula satisfies the set rule, then a part can be classified as NFF, note that Count of NFF in identified period should be the count of confirmed NFF in the Component Assessment table divided by total unscheduled removals for the part in identified period (irrespective of NFF flag)

***Formula for evaluating JRR***

JRR over a given period

$$= \text{Count of JRR identified at the given period} * 100 / (\text{No. of NFF})$$

If the JRR as per given formula satisfies the set rule, then part can be classified as NFF, note that Count of JRR in identified period must be derived from 'Justified Removal' column and only those serials which have Justified Removals as 'Yes; must be counted.

## Analyze NFF, LTR at Customer level

Reference: APRP-1045

### Background

This enhancement brings improvements to Reliability Setup business component with its ability to map alert rules set for NFF and LTR to specific customer and model. NFF and LTR alert rules once set, mapping can be done to customer, aircraft model or model type. Through this, multiple level mapping is also made possible.

### Change Details

#### Manage Reliability alert Rules

In **Manage Reliability Alert Rules** screen, rules can be set for MTBUR, NFF and LTR. Previously alert rules were set generically. Now, for NFF and LTR, alert rules can be set at three additional levels. When value in 'Alert Rules For' combo is selected as NFF/LTR, the adjacent combo 'Rules for' will load the following values:

1. Customer
2. Aircraft Model
3. Customer-Model
4. Generic

When any of the first three values is selected (i.e. values other than Generic), user can map alert rules at any of the above levels in the 'Rules Mapping' tab. Rule definition is enhanced with the 'Sub Rule ID' control in which multiple sub-rules can be defined against a Rule ID.

With these enhancements, alerts rules can be defined effectively and can be mapped flexibly to different customers and aircraft models, thereby creating a smooth and efficient flow of operations in Reliability Analysis.

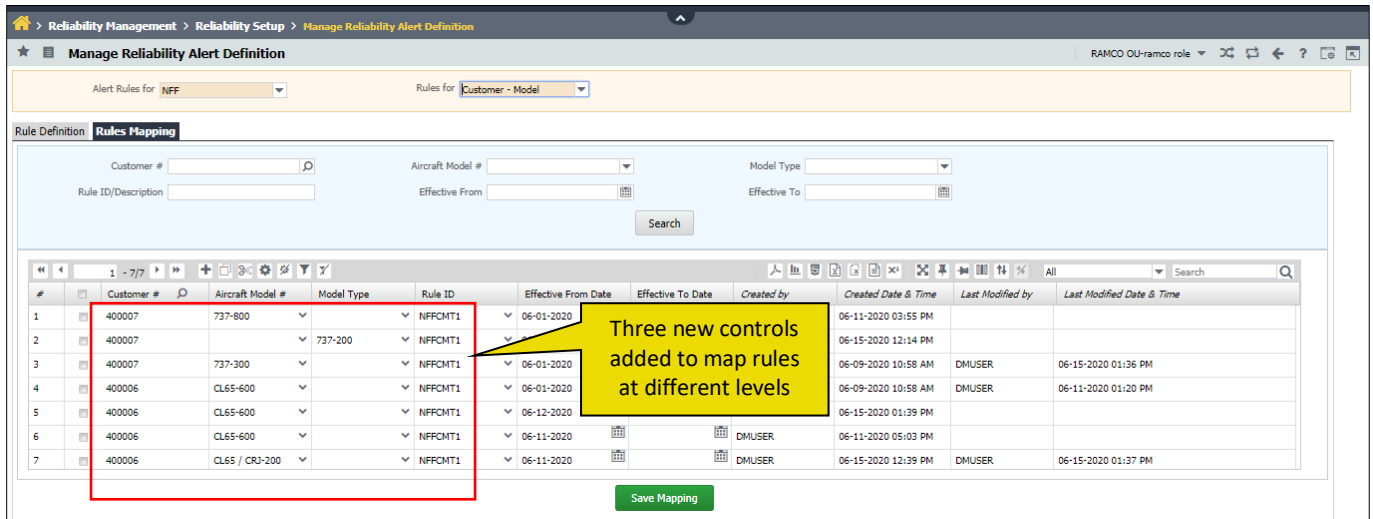
#### Illustration: Rule Definition

While defining alert rules, sub rule definitions come handy to group rules based on different needs. For example, consider an organization dealing with customers from different backgrounds, say, different countries. In that case, a Rule ID can be defined with different sub rules to create a basic set of rules, say, for customers from a country. So that, this basic rule can be mapped to all customers in that country and then customer-specific rules can be defined and mapped to each customer separately. This way, the burden of defining rules for each customer the same set of rules repeatedly is avoided.

**Exhibit 1: Manage Reliability alert Rules – Sub Rule definition**

The screenshot displays the 'Manage Reliability Alert Definition' interface. At the top, the 'Alert Rules for' dropdown is set to 'LTR'. The 'Rules for' dropdown is open, showing options: 'Customer', 'Aircraft Model', 'Customer - Model', and 'Generic'. A yellow callout points to this dropdown with the text 'New levels for defining rules added'. Below, the 'Rule Definition' tab is active, showing a table of rules. The table has columns: '#', 'Rule ID/Description', 'Rule ID', 'Sub Rule ID', 'Rule Description', 'Define Rules', and 'Defined Rules Description'. A red box highlights the 'Sub Rule ID' column, and a yellow callout points to it with the text 'Sub-rules can be defined against Rule IDs'. The table lists several rules, including 'LTR3MB / Model type' (Rule ID: LTR3MB, Sub Rule ID: SR1, SR2), 'LTR3MA / LTR 3M Airbus' (Rule ID: LTR3MA, Sub Rule ID: S R1, S R2), and 'LTR AM / LTR AM' (Rule ID: LTR AM, Sub Rule ID: LTR AM SR).





### Component Removal Dashboard

In Component Removal Dashboard, while adding items to watchlist, four columns – Mfr. Part #, Appl. Customer #, Removed from A/C Model # and Model Type. In addition to that, four user defined editable controls are added. All the above said controls are added to Search screen and every tile in Tiles view except 'Restrictions' tile in which only Applicable Customer # and Mfr. Part # are visible.

### Exhibit 3: Component Removal Dashboard – Add Items to Watchlist

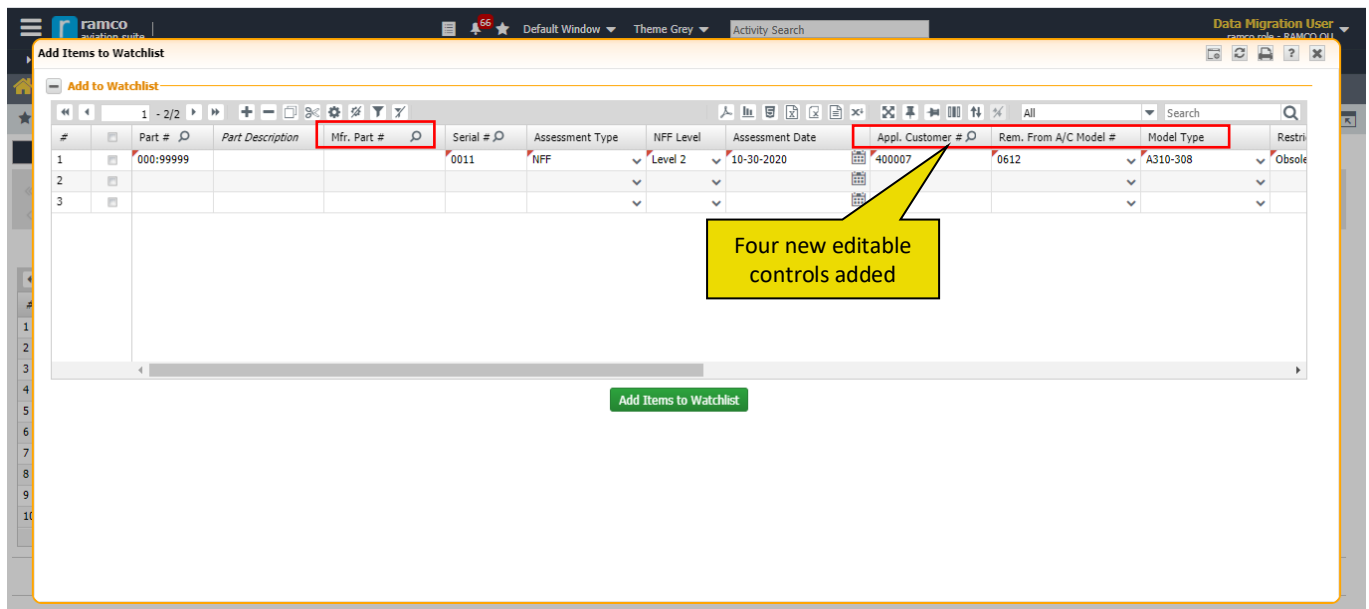


Exhibit 4: Component Removal Dashboard – Tiles View

Reliability Management > Reliability Analysis > Component Removal Dashboard

Component Removal Dashboard

RAMCO OU-ramco role

Low Time Removals 0 No Fault Found 0 Restrictions 0 Overall Assessment 0

Parts List Components List

Add Items to Watchlist

#	Mfr. Part #	Part Group	Serial #	In Stock?	Last Transaction	Ownership	Appl. Customer #	Rem. From A/C Model #	Model Type	Component #	Rule Referenced
1	170-70160-403		PO-Y0QYV7	No		Customer / Customer 8				00001G	
2	RT-10		SL-000599-2020	No		Customer / Customer 8				C004083-2020	Rule 1, Rule 3
3	RT-11		SL-000600-2020	No		Customer / Customer 8				C004084-2020	Rule 2
4	RT-12		SL-000601-2020	No		Customer / Customer 8				C004085-2020	Rule 1, Rule 2
5	RT-13		SL-000602-2020	No		Customer / Customer 8				C004086-2020	Rule 1, Rule 2
6	RT-14		SL-000603-2020	No		Customer / Customer 8				C004087-2020	Rule 1
7	1023100-7		HAI1941	No		Customer / Customer 8				044077	
8	S23101-001-002		AS284	No		Customer / Customer 8				000008	
9	00703		6	No		Customer / Customer 8				N1437H	
10			SL-000755-2020	No	GI-011174-2020	Owned				COMP-000802-2...	

Update Info. Remove from Watchlist Quick Links

Four new display only controls added

Exhibit 5: Component Removal Dashboard – Search View

Reliability Management > Reliability Analysis > Component Removal Dashboard

Component Removal Dashboard

RAMCO OU-ramco role

Search Criteria

000:99999 Search

#	Part Description	Mfr. Part #	Part Group	Serial #	In Stock?	Last Transaction	Ownership	Appl. Customer #	Rem. From A/C Model #	Model Type
1	ELECTRICAL TEST	000		11	Yes	GI-011325-2020	Customer / Customer 8	400007/Customer 8	A310	
2	ELECTRICAL TEST	000		12	No	GI-011326-2020	Customer / Customer 8	400007/Customer 8	A310	
3	ELECTRICAL TEST	000		123-00	No	UIS-001306-2020	Owned			
4	ELECTRICAL TEST	000		13	Yes	GI-011327-2020	Customer / Customer 8	400007/Customer 8		
5	ELECTRICAL TEST	000		13	Yes	GI-011327-2020	Customer / Customer 8	400007/Customer 8		
6	ELECTRICAL TEST	000		14	Yes	GI-011330-2020	Customer / Customer 8	400007/Customer 8		737-200
7	ELECTRICAL TEST	000		14	Yes	GI-011330-2020	Customer / Customer 8	400007/Customer 8		
8	ELECTRICAL TEST	000		14	Yes	GI-011330-2020	Customer / Customer 8	400007/Customer 8	B767-200	
9	ELECTRICAL TEST	000		14	Yes	GI-011330-2020	Customer / Customer 8	400006/Customer 71	CL65-600	A310-308
10	ELECTRICAL TEST	000		16	Yes	GI-011357-2020	Customer / Customer 8	400007/Customer 8	A310	

Update Info. Remove from Watchlist Quick Links

Four new display only controls added

## Ability to automatically inherit parameter values from Re-initialize Parameter values for Reliability Aircraft Utilization info.

Reference: APRP-946

### Background

Aircraft Utilization is the key information in order to perform Reliability assessment for components attached to the aircraft and the aircraft itself. A new activity had recently been introduced to capture the Aircraft Utilization on a periodic interval for the purpose of reliability assessment.

But, the need here is to inherit the Utilization from Re-initialize / Update Parameter Values UI which is already been periodically updated with utilization data, to avoid an additional update on to the reliability UI.

### Change Details

#### *Manage Aircraft Utilization Info.*

A new button has been introduced, 'Get Utilization' in **Manage Aircraft Utilization Info.** screen under **Reliability Analysis** business component. The purpose of the button is to retrieve the usage value of given Aircraft in the 'Aircraft Utilization Info.' multiline from **Re-initialize / Update Parameter Values** screen, for the Utilization from-to period given and the Parameter selected.

#### Exhibit 1: Define Rules – New additional values

**Manage Aircraft Utilization Info.**

Search Criteria: Search On [ ] Utilization from/to Date [ ] [Search]

**Aircraft Utilization Info.**

#	Aircraft Reg. #	Aircraft MSN	Aircraft Model #	Ownership	Owning Agency #	Owning Agency Name	Utilization from Date	Utilization to Date	Parameter	Value	Value Type	Status
1	101	SR101	A310	Owned			07-01-2020	07-31-2020	FH	100.00	Actual	Confirmed
2	101	SR101	A310	Owned			08-01-2020	08-31-2020	FH	0.00	Planned	Fresh
3	101	SR101	A310	Owned			09-01-2020	09-30-2020	FH	0.00	Planned	Confirmed
4											Planned	

Buttons: **Get Utilization** (highlighted), Save, Confirm

## Search based on Part Group in Reliability analysis

*Reference: APRP-1062*

### Background

This enhancement brings improvements to Search feature while analyzing Component Removal Information in Reliability Analysis Business component. Parts can be grouped based on different criteria in the product and one part can belong to multiple such groups. Part groups can be created for different purposes; one such purpose is 'Reliability'. While performing Reliability Analysis, it would be useful for the Value engineer to filter out part records based on Part Group. So, this enhancement enables the product to take into account of the 'Reliability'-Part Group(s) to which removed part-serial belong to.

Note that only Part Groups created under the purpose 'Reliability' are considered in this enhancement. In Manage Component Removal Info and Component Removal Dashboard screens, parts belonging to specific 'Reliability' Part Groups could be fetched through Search. Part Group data for parts are also displayed when available.

### Change Details

#### *Manage Component Removal Info.*

In **Manage Component Removal Info** screen, a new entity 'Part Group' is added to 'Search On' combo. On selecting the entity 'Part Group', Part Groups tagged with purpose '**Reliability Analysis**' and '**Controlled**' set as '**Yes**' in masters will be displayed in adjacent combo which can be selected to search all parts belonging to that Part Group. When search results are fetched, part details are displayed along with the Part Group to which they belong to. When search is done using Part #, multiple part groups are displayed in 'Part Group' column separated by comma.

## Exhibit 1: Manage Component Removal Info.

Search Criteria

Search On: **Part Group** **BOEING**

Component Removal Details

#	val Ref.	Removal Ref. Doc. #	Rem. Date	Removed by	Removal Condition	Removal Reason	Removal Type	Basic Removal	Remo	Status	Rema	Part Description	Part Group
1		GI-011071-2020	03-06-2015	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		Nose Landing Gear	BOEING
2		GI-011085-2020	05-11-2015	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		AUXILIARY POWER	BOEING
3		GI-011050-2020	01-05-2015	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		ENGINE	BOEING
4		GI-011055-2020	01-05-2015	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		AUXILIARY POWER	BOEING
5		GI-011068-2020	03-06-2015	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		ENGINE	BOEING
6		GI-011083-2020	05-11-2015	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		Nose Landing Gear	BOEING
7		GI-011059-2020	02-10-2019 12:00 AM	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		Nose Landing Gear	BOEING
8		GI-011077-2020	05-02-2019 12:00 AM	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		Nose Landing Gear	BOEING
9		GI-011056-2020	02-10-2019 12:00 AM	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		ENGINE	BOEING
10		GI-011074-2020	05-02-2019 12:00 AM	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		ENGINE	BOEING
11		GI-011065-2020	02-28-2019 12:00 AM	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		Nose Landing Gear	BOEING
12		GI-011067-2020	02-28-2019 12:00 AM	DMUSER	Unserviceable	Unplanned r...	Unschedul...	No		Confirmed		AUXILIARY POWER	BOEING

Save Confirm

Only those Part Groups defined with Purpose 'Reliability Analysis' and Controlled Group 'Yes' will be displayed in the Search combo of **Manage Component Removal Info** screen. Below is the screen in Part Administration business component where such definitions could be edited.

## Exhibit 2: Part/Service Groups

Search Criteria

Group Code:

Controlled Group: **Yes**

Status:

Search

Part Group Details

#	Group Code	Group Description	Associate Attributes	Associate Parts	Associate Services	Controlled?	Purpose	Status	Created by	Float Management	HSN Code	Inventory Planning	Material Burden	Material Planning	Pool Effectivity	Pricing	Product Line	Modified Date
1	01	TEST	No	Yes	No	Yes	Reliability	Active	DMUSER									-2019
2	0121	TEST	No	Yes	No	Yes	Reliability	Inactive	DMUSER									-2019
3	RE-NO	RE-NO	Yes	Yes	No	Yes	Reliability	Active	DMUSER									-2019
4	02	A	No	Yes	No	Yes	Reliability	Active	DMUSER									-2020
5	RFT-007	FLEET PARTS	Yes	Yes	No	Yes	Reliability	Active	DMUSER									-2020
6	CRTPRTRGRP1	CREATE PART GROUP 1	Yes	Yes	No	Yes	Reliability	Active	DMUSER									-2020
7	PRTGRP1	PART GROUP 1	Yes	Yes	No	Yes	Reliability	Active	DMUSER									-2020
8	AIRBUS	Airbus group	Yes	Yes	No	Yes	Reliability	Active	DMUSER									-2020
9	BOEING	Boeing Group	Yes	Yes	No	Yes	Reliability	Active	DMUSER									-2020
10	6YJME	6YJME-400006	Yes	Yes	No	Yes	Reliability	Active	DMUSER									-2020
11	6YJMD	6YJMD-400006	Yes	Yes	No	Yes	Reliability	Active	DMUSER									-2020

View Attributes View Parts/Services View Usages

## Component Removal Dashboard

In **Component Removal Dashboard** screen under **Reliability Analysis** business component, the Global search field is enhanced with ability to fetch Part-serial belonging to Part Groups tagged with purpose '**Reliability Analysis**' and '**Controlled**' set as '**Yes**'. Similar to the previous screen, Part group of a Part is displayed in the search results.

## Exhibit 3: Component Removal Dashboard

Reliability Management > Reliability Analysis > Component Removal Dashboard

Component Removal Dashboard

RAMCO OU-ramco role

Low Time Removals 57 | No Fault Found 49 | Mandatory Occurrence Report 22 | Incidence Occurrence report 32 | Restrictions 29 | Overall Assessment 113

Parts List | Components List

Add Items to Watchlist

#	Part #	Part Description	Mfr. Part #	Part Group	Serial #	In Stock?	Last Transaction	Ownership	Appl. Customer #	Rem. From A/C Model #	Mode
1	69-23832-29:81205	ENGINE	014963	BOEING,RFT-CP102	test7	Yes	UPR-008049-2019	Owned	400007/Customer 8	B767-200	
2	69-23832-29:81205	ENGINE	014963	BOEING,RFT-RTA	CP102	Yes	GI-011193-2020	Customer / Customer 8	400007/Customer 8	A310	
3	69-23832-29:81205	ENGINE	014963	BOEING,RFT-RTA1	test7	Yes	UPR-008049-2019	Owned	400007/Customer 8	737-800	737-2
4	69-23832-29:81205	ENGINE	014963	BOEING,RFT-RTA1	test6	Yes	UPR-008049-2019	Owned	400006/Customer 71	CL65-600	A310
5	69-23832-29:81205	ENGINE	014963	BOEING,RFT-RTA1	test7	Yes	GI-011181-2020	Customer / Customer 8	400007/Customer 8		
6	69-23832-29:81205	ENGINE	014963	BOEING,RFT-RTA1	test7	Yes	GI-011191-2020	Customer / Customer 8	400007/Customer 8		
7	69-23832-29:81205	ENGINE	014963	BOEING,RFT-RTA1	test7	Yes	GI-011330-2020	Customer / Customer 8	400007/Customer 8	737-800	737-2
8	000:99999	ELECTRICAL TEST	000		14	Yes	GI-011330-2020	Customer / Customer 8	400007/Customer 8		
9	1023100-7:2C082	FLUTTER DAMPER	1023100-7		HAI1941	No		Customer / Customer 8			
10	000:99999	ELECTRICAL TEST	000		14	Yes	GI-011330-2020	Customer / Customer 8	400007/Customer 8	A310	

Update Info. Remove from Watchlist Quick Links

Part Group to which the Part# belongs to is displayed in this control

## Exhibit 4: Component Removal Dashboard

Reliability Management > Reliability Analysis > Component Removal Dashboard

Component Removal Dashboard

RAMCO OU-ramco role

Search Criteria

BOEING

Search

#	Part #	Part Description	Mfr. Part #	Part Group	Serial #	In Stock?	Last Transaction	Ownership	Appl. Customer #	Rem. From A/C Model #	Model Type	Component #
1	014963-P3625	ENGINE	014963	BOEING,RFT-CP102	test7	Yes	UPR-008049-2019	Owned	400007/Customer 8	737-800	737-200	C004124-2020
2	014963-P3625	ENGINE	014963	BOEING,RFT-RTA	CP102	Yes	GI-011193-2020	Customer / Customer 8	400007/Customer 8	A310-308		C004123-2020
3	014963-P3625	ENGINE	014963	BOEING,RFT-RTA1	test7	Yes	UPR-008049-2019	Owned	400006/Customer 71	CL65-600		C004122-2020
4	69-23832-29:81205	AUXILIARY POWER	69-	BOEING,RFT-test6	test6	Yes	UPR-008049-2019	Owned	400007/Customer 8			A102821
5	69-23832-29:81205	AUXILIARY POWER	69-	BOEING,RFT-test6	test6	Yes	UPR-008049-2019	Owned	400006/Customer 71			A102821
6	69-23832-29:81205	AUXILIARY POWER	69-	BOEING,RFT-test7	test7	Yes	UPR-008049-2019	Owned	400007/Customer 8	A310		A102822
7	69-23832-29:81205	AUXILIARY POWER	69-	BOEING,RFT-test7	test7	Yes	UPR-008049-2019	Owned	400007/Customer 8	B767-200		A102822

Update Info. Remove from Watchlist Quick Links

Part Group entity is added to Search criteria

Part Group to which the Part# belongs to is displayed in this control

## Ability to render LTR flag based on Time since Attachment value

Reference: APRP-908

### Background

Low Time removal / Rogue unit analysis is a Reliability Assessment which is based on the time that a component remains attached to an aircraft and lower the usage value means the component seems to be failing fairly quickly. 'Time since attachment' is a direct parameter attribute which helps in identifying LTR components.

### Change Details

Alert Rule definition for LTR has been enabled with two additional options as below to facilitate TSA based assessment:

- Avg. Time Since Attachment
- Consecutive Removal

The above 2 parameters will trigger the calculation of Average Time Since attachment value of 2 or more consecutive removals based on which a component will be tagged as LTR.

For example – Let Alert rule be, **Consecutive removals = 2 AND Avg. Time Since Attachment <= 100**

Assume current date is 15-May-20, last 3 removals of component P1 S1 were as follows:

- 15-May-2020 with TSA as on date as 90 FH
- 30-Apr-2020 with TSA as on date as 85 FH
- 17-Apr-2020 with TSA as on date as 110 FH

Applying above LTR rule, TSA between removal instances (i) & (ii) is 87.5 FH which is <= 100 , hence P1 S1 should be flagged LTR

### Exhibit 1: Manage Reliability Alert Definition

The screenshot displays the 'Define Rules' window for 'LTR-RULE-01 UNSC REM'. The rule is configured with the following conditions:

- U/s Removals >= 1 Months (equal, 1)
- Removal Type (equal, Unserviceable)
- Removed Condition (equal, Unserviceable)
- Avg. Time Since Attachment (equal, 50, FH)
- consecutive U/s Removals (equal, 2)

A red box highlights the last two conditions, and a yellow callout box points to them with the text 'Rules for LTR based on TSA'. The 'Save' button is visible at the bottom.

## Visibility of CRAD from Component Record, RO & Manage Repair Quote

APRP-234

### Background

This enhancement brings improvements in **Reliability Analysis** for an ITM vendor. User is required to access Component Removal Dashboard from **Component Record**, **Repair Order** and **Manage Repair Quote** screens. This will enhance the user's usability perspective; if user is inspecting any component or he is verifying any ROs created for some parts and there is a need to ensure the reliability aspects, user can only analyze them by launching the screen from the left pane. These difficulties are addressed in this enhancement.

### Change Details

This enhancement speaks about the provision to launch **Component Removal Dashboard** from the following screens:

- 1) Edit Component Record
- 2) View Component Record
- 3) Create/Edit/View Repair Order
- 4) Manage Repair Quote

A link **Review Component Removal Assessment** will be added in the above screens. By clicking on this link, user will be allowed to traverse and analyze the Removal Assessments straight away from the respective screens.



## Exhibit 1: Edit Component Record

Configuration Management > Aircraft > Edit Component Record

HAECO-Inventory Technical Management-Data Migration Role

**Edit Component Record**

Operational Details | Configuration Details | Location Details | Additional Details

**Operational Details**

Manufactured Date: 15/11/2019  
 Execution Facility: Outsourcing  
 Preferred Repair Agency: HAECO  
 Component Condition: Serviceable  
 Planning Base: HAECO-Inventory Technical Man...

Induction Date: 15/11/2019  
 Maint. / Resp. Work Center #: E0001  
 Planner Code: E0001  
 From Date: 04/12/2019  
 Default Maint Base: HAECO-Inventory Technical Management

Operational Date: 15/11/2019  
 Work Center Description: HAECO-Inventory Techni...  
 Planner Name: Tai Man Chan  
 Stock Status: CUSTOMER OWNED

**Daily Usage Details**

Lead Parameter: [ ]  
 Average Daily Utilization: [ ]

Change Operator To: [ ]

Record Statistics

Created By: DMUSER  
 Created Date: 15/11/2019  
 Comments: [ ]

Last Modified by: DMUSER  
 Last Modified Date: 04/09/2020

**Links:**

- Edit Technical & Attribute Parameters
- Edit Notes
- Edit Reference Details
- Maintain Asset Identifier for Component
- Review Component Removal Assessments**
- Edit Consumption & Range Parameters
- Edit Component Warranty
- View Certificate Details
- Update Component Maintenance Program
- Build Component Configuration
- Initialize & Update Component Configuration
- View Component Maintenance Log
- Record Part Deviation List

A new link "Review Component Removal Assessment" is added to launch CRAD

## Exhibit 2: View Component Record

Configuration Management > Aircraft > View Component Record

HAECO-Inventory Technical Management-Data Migration Role

**View Component Record**

Operation Details | Configuration Details | Location Details | Additional Details

**Operation Details**

Manufactured Date: 15/11/2019  
 Maint. / Resp. Work Center #: E0001  
 Default Maint Base: HAECO-Inventory Techni...  
 Component Condition: Serviceable  
 Replacement Type: LRU  
 Reserved for Retd or Lease?: No

Induction Date: 15/11/2019  
 Work Center Description: HAECO-Inventory Techni...  
 Planner Code: E0001  
 From Date: 04/12/2019  
 Execution Facility: Outsourcing

Operational Date: 15/11/2019  
 Planning Base: HAECO-Inventory Techni...  
 Planner Name: Tai Man Chan  
 Stock Status: CUSTOMER OWNED  
 Preferred Repair Agency: HAECO

**Daily Usage Details**

Lead Parameter: [ ]  
 Average Daily Utilization: [ ]

**Links:**

- View Technical & Attribute Parameter
- View Component Movement History
- View History of Parameter Value Update
- View Notes
- View Warranty Details
- View Component Maintenance Program
- Record Part Deviation List
- View Consumption & Range Param
- View Certificate of Maintenance History
- View Part Number Modification History
- View Component Mod Status
- View Reference Details
- Review Component Configuration History
- Review Component Removal Assessments**
- Condition History
- View Component Configuration
- View Certificate Details
- View Component Ownership Change History
- View Component Maintenance Log

Record Statistics

Created By: DMUSER  
 Created Date: 15/11/2019  
 Comments: [ ]

Last Modified by: DMUSER  
 Last Modified Date: 04/09/2020

A new link "Review Component Removal Assessment" is added to launch CRAD

## Exhibit 3: Edit Repair Order

**Edit Repair Order**

Reason for Cancellation: Reason    [Edit Terms and Conditions](#)

[Edit User Defined Details](#)  
[Upload Documents](#)  
[Attach Clause](#)

[Edit Discrepancies](#)  
[Authorize RO](#)  
[View Repair Instructions](#)

[Generate RO Report](#)  
[Maintain Repair Shop Correspondence](#)  
[Review Component Removal Assessment](#)

[View Repair Cost History](#)  
[View Parameter Information](#)  
[View Associated Doc. Attachments](#)  
[View Part Information](#)  
[View Customer Order](#)

[View Part Repair Shop Mapping](#)  
[View Warehouse Planning Parameter](#)  
[View Warranty Ref. Documents](#)  
[View Shipping Note](#)  
[View Task Information](#)

[View Parts Under Repair](#)  
[View Warranty Claim](#)  
[View Part Supply Chain Performance](#)  
[View Advance Shipping Note Information](#)

**Record Statistics**

Created by: DMUSER  
Last Modified by:

Created Date: 10-16-2020  
Last Modified Date:

## Exhibit 4: View Repair Order

**View Repair Order**

Found no rows to display!!!

Complete

[Maintain Repair Shop Correspondence](#)  
[View Quotes](#)  
[View Parameter Information](#)  
[View RR List](#)  
[View Warranty Claim](#)  
[View Shipping Note](#)  
[Generate RO Report](#)  
[Review Component Removal Assessment](#)

[View Discrepancies](#)  
[View Acknowledgement](#)  
[View Repair Cost History](#)  
[View Associated Doc. Attachments](#)  
[View Invoice](#)  
[View Repair Instructions](#)

**Record Statistics**

Created by: DMUSER  
Last Modified by:   
Authorized by:

Created Date: 10-16-2020  
Last Modified Date:   
Authorized Date:

## Exhibit 5: Manage Repair Quote

Repair Order Management > Repair Order > Manage Repair Quote

★ Manage Repair Quote

RAMCO OU-ramco role

View File

Other Details

☐ Override BER Limit

Save

Confirm RO

Record Material Cost  
Upload Documents  
Maintain Repair Shop Correspondence  
Part - Serial # / Lot # Transaction History

Record Discrepancy Analysis  
Edit TCD  
Authorize RO  
Attach Clause

A new link "Review Component Removal Assessment" is added to launch CRAD

View Repair Cost History  
View Issue Details  
View Invoice  
View Part Repair Shop Mapping

View Quotation History  
View Associated Doc. Attachments  
View Material Costs  
**Review Component Removal Assessment**

View Parameter Information  
View Part Supply Chain Performance  
View TCD  
View Contract Information

## Exhibit 6: View Component Record

Reliability Management > Reliability Analysis > Component Removal Dashboard

★ Component Removal Dashboard

HAECO-Inventory Technical Management-Data Migration Role

Search Criteria

COMP19000009

Search

#	Part #	Part Description	Mfr. Part #	Part Group	Serial #	In Stock?	Last Transaction	Ownership	Component #	LTR?	NFF?	NFF Level	MOR	IC
1	0006485-805	BOX-CONTROL	0006485-805	CEB-A330-REL-PG1-GLOBAL	42827	No	UI20000361	Customer / CATHAY PACIFIC	COMP19000009	✓	✓			

Component # is added as a search entry and auto search will be invoked when launched from component records, RO & Part-Serial transaction screen

Update Info.

Remove from Watchlist

Quick Links

Set NFF LO Criteria  
Generate NFF Monthly Report

## View Repair Shop findings from Component Removal Dashboard

Reference: APRP-951

### Background

This enhancement brings improvements in **Reliability Analysis**, for an ITM vendor. An ITM industry maintains its Parts/Components with the help of Reliability Reports as they do not conduct any MRO services. There is a need for Tech Records team to review the component Reliability. The value engineer is required to review the Shop findings and other Repair information from Component Removal Dashboard. Through this he can analyze the reason behind the frequent tagging of such Parts/Components. With the existing screens there is no provision to view such information which has been taken care with this enhancement.

### Change Details

This enhancement details on the provision to view and analyze the shop findings from Component Removal Dashboard. A multiline column "Repair History" will be introduced. Clicking on this Icon will launch **Work Completion and Teardown Report** screen, where user will be able to review the Shop findings, Utilization Info., Certification details, Repair Agency, etc.

### Exhibit 1: Component Removal Dashboard

Reliability Management > Reliability Analysis > Component Removal Dashboard

Component Removal Dashboard

Overall Assessment: 10

Parts List Components List

#	Part #	Serial #	Last Transaction	Ownership	Appl. Customer #	Rem. From A/C Model #	Component #	LTR?	NFF?	MOR	Reliability Notes	Latest Note	Repair History
1	000:99999	KH	MIS-007187-2019	Customer / Customer 8			A102836			✓			
2	000:99999	KH	MIS-007187-2019	Customer / Customer 8	400007/Customer 8	A330-311	A102836	✓					
3	0111-0005-45	3589401											
4	0111-0005-45	3589402											
5	0111-0005-45	3589403											
6	0111-0005-45	3589404											
7	0111-0005-45	3589405											
8	0111-0005-45	3589406											
9	30840002-1:45402	00004N		Owned									
10	30840002-1:45402	46455		Owned									

Update Info. Remove from Watchlist Quick Links

## Exhibit 2: Work Completion and Teardown Report

Repair Order Management > Repair Order > Work Completion and Teardown Report

Work Completion and Teardown Report

Create Edit/View

Search Criteria

Main Core Part # 30840002-1:45402 Order Repair Order Main Core Mfg. Serial # 46455 Main Core Mfg. Lot # Search by Repair Agency 00000 Search

Screen launches in View mode

#	Order #	Main Core Part #	Main Core Mfg. Serial #	Removed Condition	Removal Reason	Customer #	Removed from A/C Reg. #	Warranty Claim?	Work Shop Findings
1	IFRO-002852-2019	30840002-1:45402	46455	Unserviceable	UNSCHEDUL...	400007	101	Yes	Rustiness in the joints have been identified
2									

## Ability to launch MOD compliance history to review the MOD history of a component from Component Removal assessment Dashboard

Reference: APRP-911

### Background

Component Removal Assessment Dashboard provides a complete visibility on all components & Parts which have been identified with a Reliability Assessment flag and the corresponding repair details and repair instructions. The details of MOD upgrades done on the given Part or Component is another essential information to assess the next repair steps required to improve the reliability of the part/component.

### Change Details

A new column is added in **Component Removal Assessment Dashboard** under both Part and Component Assessment tiles called 'MOD History'. A click on this column would launch **Manage Part-Serial MOD Details** User interface (which is an existing UI), with the Part # / Component set as a context on the Search criteria. This allows user to review the MOD details for the selected Part/Component.

### Exhibit 1: Component Removal Dashboard

The screenshot displays the 'Component Removal Dashboard' interface. At the top, there are summary tiles for 'Low Time Removals' (1), 'No Fault Found' (20), 'MOR' (3), 'Incident Occurrence Report' (0), and 'Justified Removal Report' (0). Below these is a table with columns: #, Part #, Serial #, Last Transaction, Ownership, Appl. Customer #, Rem. From A/C Model #, Component #, Rule Referred, MOD History, Reliability Notes, and Latest Mo. The first row of data shows Part # 000:99999, Serial # KH, Last Transaction MIS-007187-2019, Ownership Customer / Customer 8, Appl. Customer # 400007/Customer 8, Rem. From A/C Model # A320-211, Component # A102836, Rule Referred, MOD History (with a red box and a yellow callout), Reliability Notes, and Latest Mo. The callout states: 'An icon to launch Part-Serial MOD details UI'. At the bottom, there are buttons for 'Update Info.', 'Remove from Watchlist', and 'Quick Links'.

## WHAT'S NEW IN RELIABILITY REPORTS?

Ability to generate NFF report along with the part level NFF levels and its investigation details for the respective customers

Reference: APRP-229

### Background

A no fault found report or a NFF report is one of the reports to track reliability of components in any organization. It contains the fault found statistics, repair details and removal information of a part in a specific period. Since components are being shared by customers through a common pool, they are more interested in the performance of the parts attached to their aircrafts. Hence the report is usually viewed at a customer level.

### Change Details

- NFF Level 1 and Level 3 report can be launched for any part that is tagged under a NFF level 1 or level 3 rule defined in the system. If the part gets tagged under a customer specific rule then NFF level 1 or level 3 report can be launched for that part and customer combination.
- The report will consider all removals from the specific customer in the last 'n' months where 'n' is the number of months setup for NFF in the Rule Referred that the part was tagged under.

Exhibit 1: Indicates NFF Level 1 Report

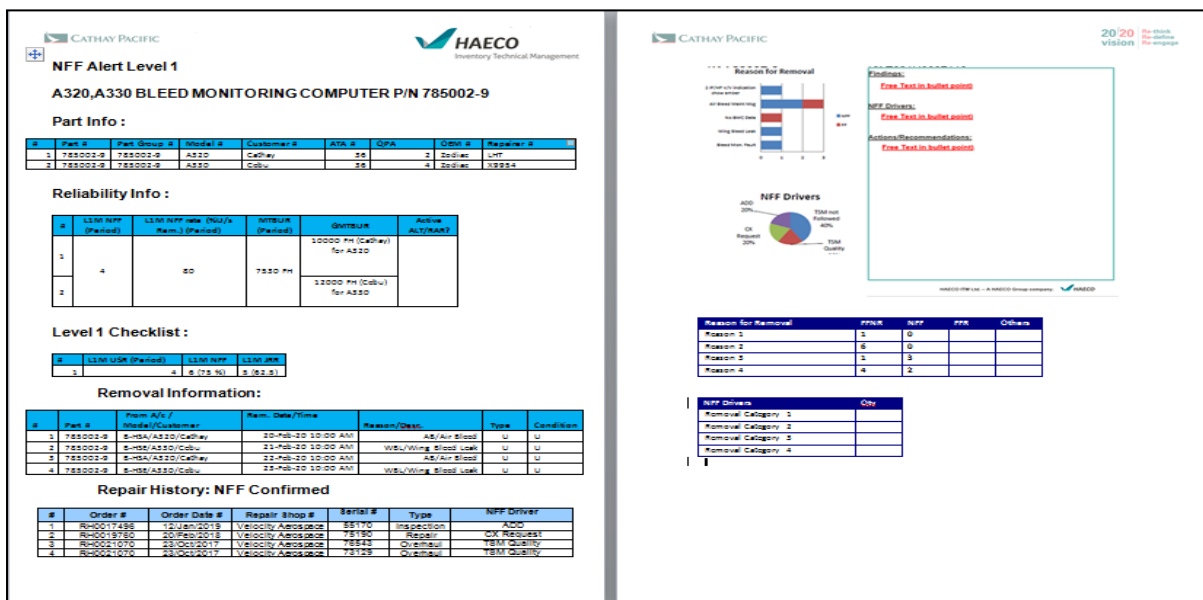


Exhibit 2: Indicates NFF Level 3 Report

No check  
No action  
No engage

No check  
No action  
No engage

### NFF Alert Level 3

**A320,A330 DEU-DECODER ENCODER UNIT P/N Z031H0000110**

**Part Info :**

#	Part #	Part Group #	Model #	Customer #	ATA #	QFA	QDD #	Repairer #
1	Z031H0000110	Z031H000	A320	Cathay	23	2	230101	19994
2	Z031H000110	Z031H000	A330	Cebu	23	4	230101	19994
3	Z031H000110	Z031H000	A330	Cathay	23	5	230101	19994

**Reliability Info :**

#	LEMI NFF (Period)	LI200 NFF rate (No./h)	MTBUR (Period)	QMTBUR	Active ALT/NAAT
1	4	80	7519 FH	10000 FH (Cathay) for A320	
2				10000 FH (Cebu) for A330	

**Level 3 Checklist :**

#	LEMI USR (Period)	LI200 NFF	LEMI JNK	LEMI USR(Month)	LEMI NFF
1		4	8.178 N1	5.162 N1	

**Removal Information:**

#	Part #	From A/L / Model/Customer	Rem. Date/Time	Reason/Desc.	Type	Condition
1	788002-B	S-HSA/A320/Cathay	20-Feb-20 10:00 AM	AS/Air Bleed	U	U
2	788002-B	S-HSA/A320/Cebu	21-Feb-20 10:00 AM	WBU/Wing Bleed Leak	U	U
3	788002-B	S-HSA/A320/Cathay	22-Feb-20 10:00 AM	AS/Air Bleed	U	U
4	788002-B	S-HSA/A320/Cebu	23-Feb-20 10:00 AM	WBU/Wing Bleed Leak	U	U

**Repair History: NFF Confirmed**

#	Order #	Order Date #	Repair Shop #	Serial #	Type	NFF Driver
1	R-00017496	12-Jan-2019	Velocity Aerospace	88170	Inspection	ADD
2	R-00019760	20-Feb-2018	Velocity Aerospace	79190	Repair	UK RESURF
3	R-00017070	21-Oct-2017	Velocity Aerospace	78540	Overhaul	101700000
4	R-00017010	21-Oct-2017	Velocity Aerospace	72129	Overhaul	101700000

**Feedback:**  
*Flow Test in bucket passed*

**MTB Issues:**  
*Flow Test in bucket passed*

**Action/Recommendation:**  
*Flow Test in bucket passed*

**A330 DEU-DECODER ENCODER UNIT – ATA 23**  
 PN: Z031H0000110, Z031H000110, Z031H0002110

*Assemblies & accessories if flow test in bucket action, insert table as attached*



## Generate Component Reliability Report for Configured Customer's Reliability Fleet

Reference: APRP-248

### Background

This enhancement brings Improvements in MTBUR analysis on Components which is periodically done for every month. The analysis outcome is to identify the list of parts which cross a certain threshold value of MTBUR (called the Alert value) and maintain a separate Watch list.

While Ramco already has MTBUR analysis based on fixed Alert values, the Alert value was introduced to be periodically calculated based on a standard formula. Again, while the formula is standard, the multipliers involved could vary from one Customer fleet to another which is required to be configured. Periodic MTBUR analysis is required to be done and watch list is expected to be derived based on comparison with the computed Alert values at a fleet level.

Based on the above analysis a detailed version of MTBUR analysis is required for the value engineer to verify the reliability aspects and to achieve this, a detailed CRR report is being generated. This can be further used in for planning any necessary maintenance on the Part/Component. CRR report will contain important aspects like Removal Info., Model wise assessment, consolidated assessment and a graphical representation for the better understanding.

### Change Details

1. Reliability process parameters have already been identified with parameters to handle the variation in multipliers of the Alert level formula.
2. Based on an option setting, system will identify Alerts either based on existing threshold / Alert MTBUR for parts or based on the computed Alert values.
3. The existing screen of Analyze MTBUR for parts will be retained and enhanced to represent the watchlist based on the configured Alert values.
4. A link **Generate MTBUR Report** is added below Part removal details multiline of **Analyze MTBUR for Parts** screen.

On launching the link **Generate MTBUR Report**, Component Reliability Report gets generated in excel format.

The report will contain the following information:

**Cover Sheet:** This sheet contains the following information:

- 1) Fleet - for which report is generated
- 2) Time of generation of report
- 3) Aircraft Models involved in this report
- 4) Instructions about Customer, URR, MTBUR computation.

**Removals Sheet:** This sheet contains the following information:

- 1) Part – involved in the assessment.

- 2) Removed from Aircraft, Model
- 3) Removal condition, reason, type.
- 4) Removal date and other parameters etc

**CRR-Consolidated Sheet:** “CRR-Consolidated” sheet displays the removal and other analysis info at each Part/Pat group level (Based on process parameter).

Analysis information like URR of 1 month, 3 month, 6 month, 12 month and 24 months will be available. Along with that other computation like MTBUR, RSPL MTBUR, Alerts are computed. For computing the FH and other inputs will be considered at fleet level.

**CRR-Model Sheet:** “CRR-Model” sheet displays the removal and other analysis info at each Part/Pat group level (Based on process parameter) at each individual Model #.

Based on Model #, the sheets will increase or decrease.

Analysis information like URR of 1 month, 3 month, 6 month, 12 month and 24 months will be available. Along with that other computation like MTBUR, RSPL MTBUR, Alerts are computed. For computing the FH and other inputs will be considered based on the Model for which the sheet is available.

**Graph Sheet:** “Graphs” sheet represents Removals and URR computations at different time period in a graphical notation. Some of the essentials graphs are,

- 1) Monthly Vs 3Month URR
- 2) Monthly Vs 3Month Removals
- 3) Removals by ATA Chapter (1 year from the date of generation of report)
- 4) Removals by ATA Chapter ( Last 6 month will be considered)

### Exhibit 1: Analyze MTBUR for Parts

**Analyze MTBUR for Parts**

Reliability Fleet #  Part #  Part Type  ATA #

Analyze for Month/Year

☐ Display Watch List ☐ Show only Alerts [Get Details](#)


**Part Removal Details**

#	Part #	Part Group	Aircraft Model #	Customer #	Total Number of Removals	Total Unscheduled Removals	Analysis Period	MTBUR	RSPL based In	Unscheduled Removal R	Alert Valu	Alert?	Investig
1	0330KPU03	CAL-B777-PG1	B777-300	cal	5	5	3	4,320.00	0.1000	0.2314	0.1820		
2	100-601981-207	CAL-B777-PG1	B777-300	cal	5	5	3	4,320.00	0.1000	0.2314	0.1820		
3	1152972-5	CAL-B777-PG1	B777-300	cal	5	5	3	4,320.00	0.1000	0.2314	0.1820		
4	1153154-7	CAL-B777-PG1	B777-300	cal	5	5	3	4,320.00	0.1000	0.2314	0.1820		
5	132V2RL17B	CAL-B777-PG1	B777-300	cal	3	3	3	7,200.00	0.1000	0.2314	0.1820		
6	141W4835-5	CAL-B777-PG1	B777-300	cal	3	3	3	7,200.00	0.1000	0.2314	0.1820		
7	142-123	CAL-B777-PG1	B777-300	cal	4	4	3	5,400.00	0.1000	0.2314	0.1820		
8	135011-200242-0	CAL-B777-PG1	B777-300	cal	4	4	3	5,400.00	0.1000	0.2314	0.1820		
9	2119164-3	CAL-B777-PG1	B777-300	cal	3	3	3	7,200.00	0.1000	0.2314	0.1820		
10	2119835-7	CAL-B777-PG1	B777-300	cal	3	3	3	7,200.00	0.1000	0.2314	0.1820		
11	2222254-1	CAL-B777-PG1	B777-300	cal	5	5	3	4,320.00	0.1000	0.2314	0.1820		
12	2342176-1	CAL-B777-PG1	B777-300	cal	5	5	3	4,320.00	0.1000	0.2314	0.1820		

[Generate MTBUR Report](#)

“Generate MTBUR Report” link is added to generate Component Reliability Report.

## Exhibit 2: Cover Sheet

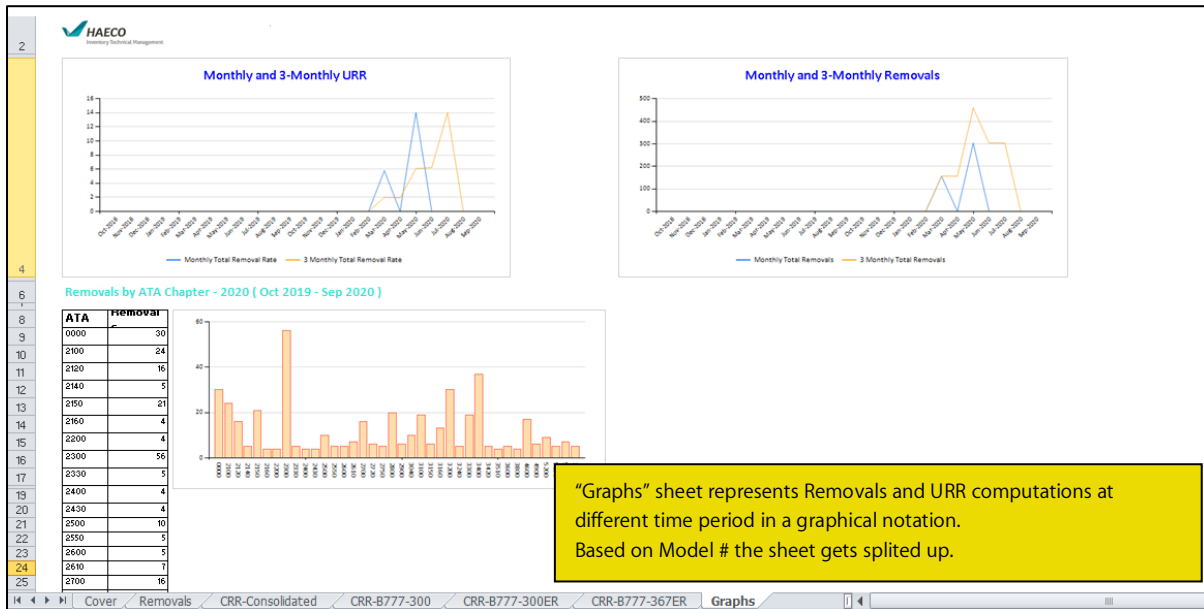
	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S
1																		
2	<b>COMPONENT RELIABILITY REPORT</b>																	
3	<b>Sep 2020      B777-300, B777-300ER, B777-367ER</b>																	
4	<b>CAL-B777</b>																	
5	<b>Introduction</b>																	
6	This Component Reliability Report (CRR) is published monthly.																	
7	The CRR details the past 24 months of unscheduled removals for components covered by the HAECO ITM LIMITED.																	
8	URR = Unscheduled Removal Rate per 1000 Flying Hours (FH) = (No. of Removals * 1000) / (Total Fleet Flying hours * Quantity Per Aircraft (QPA))																	
9	MTBUR = Mean Time Between Unscheduled Removals = (Total Flying Hours(or Cycles) * QPA) / No. of Removals																	
10	An MTBUR of 999,999 FH is presented when there is 0 unscheduled removal in the period.																	
11	Removals with subsequent shop No Fault Found(NFF) are presented.																	
12	TC - Time Code (H = Hour, C = Cycle)																	
13	Generated By: DMUSER      Generated Date & Time:16/10/2020 17:14:20																	
14	<div style="border: 1px solid black; padding: 5px;"> <p>“Cover Sheet” contains the basic information about the report like,</p> <ol style="list-style-type: none"> <li>1) Month of generation of report</li> <li>2) Model applicability of report</li> <li>3) Parameter setup</li> </ol> </div>																	
15	Cover   Removals   CRR-Consolidated   CRR-B777-300   CRR-B777-300ER   CRR-B777-367ER   Graphs																	

## Exhibit 3: Removals Sheet

#	Part No	ATA	Part Description	Serial No	Goods Inward #	Removal Date & Time	Removal Type	Removed Condition	Removal Reason #	Removal Reason	Removed from Aircraft #	Removed from Aircraft Model #	Removed Customer	
2	1	0330KPU03	2800	FUEL QUANTITY PROCESSOR UNIT	1	CGR20000-00-T1	5/5/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18001	B777-300	CAL
3	2	0330KPU03	2800	FUEL QUANTITY PROCESSOR UNIT	181	CGR20000-00-T181	5/5/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
4	3	0330KPU03	2800	FUEL QUANTITY PROCESSOR UNIT	271	CGR20000-00-T271	5/5/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18051	B777-300	CAL
5	4	0330KPU03	2800	FUEL QUANTITY PROCESSOR UNIT	361	CGR20000-00-T361	3/3/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18051	B777-300	CAL
6	5	0330KPU03	2800	FUEL QUANTITY PROCESSOR UNIT	91	CGR20000-00-T91	5/5/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18001	B777-300	CAL
7	6	100-601981-207	4600	ELECTRONIC DISPLAY UNIT	182	CGR20000-00-T182	5/15/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18055	B777-300	CAL
8	7	100-601981-207	4600	ELECTRONIC DISPLAY UNIT	2	CGR20000-00-T2	5/15/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18002	B777-300	CAL
9	8	100-601981-207	4600	ELECTRONIC DISPLAY UNIT	272	CGR20000-00-T272	5/15/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18052	B777-300	CAL
10	9	100-601981-207	4600	ELECTRONIC DISPLAY UNIT	362	CGR20000-00-T362	3/15/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18052	B777-300	CAL
11	10	100-601981-207	4600	ELECTRONIC DISPLAY UNIT	92	CGR20000-00-T92	5/15/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18002	B777-300	CAL
12	11	1152972-5	3600	CONTROLLER	183	CGR20000-00-T183	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18001	B777-300	CAL
13	12	1152972-5	3600	CONTROLLER	273	CGR20000-00-T273	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
14	13	1152972-5	3600	CONTROLLER	3	CGR20000-00-T3	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18003	B777-300	CAL
15	14	1152972-5	3600	CONTROLLER	363	CGR20000-00-T363	3/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
16	15	1152972-5	3600	CONTROLLER	93	CGR20000-00-T93	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18003	B777-300	CAL
17	16	1153154-7	0000	NITROGEN GENERATION SYS CTRL	184	CGR20000-00-T184	5/5/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18002	B777-300	CAL
18	17	1153154-7	0000	NITROGEN GENERATION SYS CTRL	274	CGR20000-00-T274	5/5/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18055	B777-300	CAL
19	18	1153154-7	0000	NITROGEN GENERATION SYS CTRL	364	CGR20000-00-T364	3/3/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18055	B777-300	CAL
20	19	1153154-7	0000	NITROGEN GENERATION SYS CTRL	4	CGR20000-00-T4	5/5/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18001	B777-300	CAL
21	20	1153154-7	0000	NITROGEN GENERATION SYS CTRL	94	CGR20000-00-T94	5/5/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
22	21	132VJ2RL17B	2550	CARGO SYSTEM LINEAR ACTUATOR	185	CGR20000-00-T185	5/15/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18001	B777-300	CAL
23	22	132VJ2RL17B	2550	CARGO SYSTEM LINEAR ACTUATOR	275	CGR20000-00-T275	5/15/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
24	23	132VJ2RL17B	2550	CARGO SYSTEM LINEAR ACTUATOR	365	CGR20000-00-T365	3/15/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18001	B777-300	CAL
25	24	132VJ2RL17B	2550	CARGO SYSTEM LINEAR ACTUATOR	5	CGR20000-00-T5	5/15/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
26	25	132VJ2RL17B	2550	CARGO SYSTEM LINEAR ACTUATOR	95	CGR20000-00-T95	5/15/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18001	B777-300	CAL
27	26	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
28	27	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
29	28	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
30	29	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
31	30	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
32	31	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
33	32	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
34	33	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
35	34	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
36	35	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
37	36	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
38	37	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
39	38	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
40	39	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
41	40	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
42	41	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
43	42	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
44	43	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
45	44	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
46	45	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
47	46	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
48	47	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
49	48	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
50	49	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
51	50	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
52	51	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
53	52	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
54	53	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
55	54	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
56	55	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
57	56	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
58	57	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
59	58	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
60	59	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
61	60	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
62	61	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
63	62	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
64	63	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
65	64	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
66	65	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
67	66	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
68	67	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
69	68	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
70	69	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
71	70	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
72	71	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
73	72	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
74	73	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
75	74	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
76	75	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/25/2020 12:00:00 AM	Unscheduled	Unserviceable	BF	Bite Test Faulty	B-18053	B777-300	CAL
77	76	141W4835-5	5600	WINDOW - NO. 2 OPENABLE	186	CGR20000-00-T186	5/2							



## Exhibit 6: Graph Sheet



### 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)