



Ramco Aviation Solution

Version 5.7

Enhancement Notification

Maintenance

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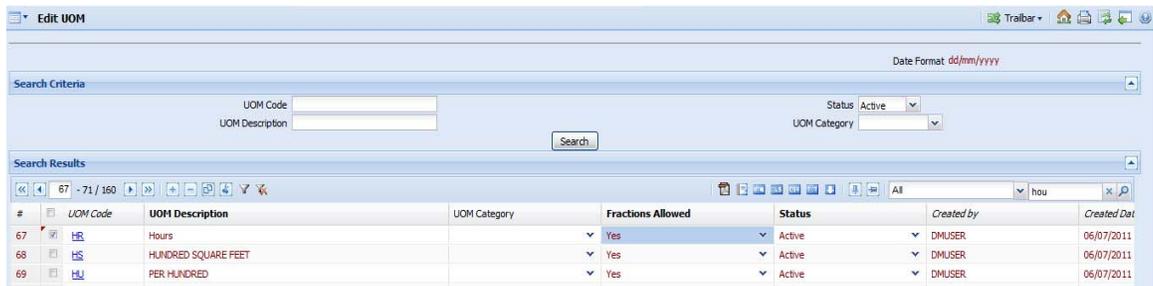
WHAT'S NEW IN AIRCRAFT?

A. Restriction to update the parameter value with fractions based on the option (Fraction Allowed) set for its UoM in UoM master

Reference: AHBE-700

Background

In Ramco Aviation Solution, during creation of a parameter, the UoM i.e. Unit of Measurement by which the parameter will be measured / quantified is mapped. The UoM's are defined in the **Unit of Measurement Administration** business component of the **Inventory Setup** process.



The screenshot shows the 'Edit UOM' application window. It includes a search criteria section with fields for 'UOM Code', 'UOM Description', 'Status' (set to 'Active'), and 'UOM Category'. Below this is a table of search results with the following data:

#	UOM Code	UOM Description	UOM Category	Fractions Allowed	Status	Created by	Created Dat
67	HR	Hours		Yes	Active	DMUSER	06/07/2011
68	HS	HUNDRED SQUARE FEET		Yes	Active	DMUSER	06/07/2011
69	HU	PER HUNDRED		Yes	Active	DMUSER	06/07/2011

Currently, the system will not restrict fractions for the parameter, even if 'Fractions Allowed' is set as "No" for the UoM assigned for the parameter.

Change Details

With the introduction of this new feature, if 'Fraction Allowed' is "No" for a UoM in the **UoM** master and if the same UoM is mapped to a parameter, the system shall enforce validation upon entry of fraction values for such parameter in the impacted screens.

Example:

Let's say 'Hours' is a UoM defined in UoM Master for which 'Fraction Allowed' is "No".

UoM 'Hours' is mapped to the Parameter 'FH'.

If user enters FH = 10.25, validation will be enforced in the impacted screens, as 'Fractions Allowed' is set as 'No' for the Parameter's UoM in UoM master.

Impacted user interfaces:

- Create journey log
- Edit Journey log
- Amend Journey log
- Re-Initialize / Update Parameter Values

B. Restriction to update the parameter value for offline Aircrafts / Components with Update option as 'New'

Reference: AHBE-2110

Background

To maintain consistency in parameter values of offline aircrafts and components, it is necessary to restrict new mode parameter value updates for offline Aircraft and components.

Currently in Ramco Aviation solution,

- ▶ User can update parameter values for aircrafts and components with update option as “**Re-initialize / New / Delta / Correction**” even if the ‘Offline system applicable’ is set as ‘Yes’.

Change Details

With the introduction of this new feature, Ramco will restrict user to update the parameter values with update option as ‘New’ for Aircrafts / Components, if the ‘Offline system applicable’ is set as ‘Yes’ in the **Installation Parameter Setup** business component.

C. Review Records Update

Reference: AHBE-8169

Background

For certain operators, when part receipts are processed in remote field bases, component related information like Parameter Value, Component Configuration & Component Maintenance Program will not always be fed into the system. These details will be provided by Tech Records personnel located in a centralized location.

To provide visibility on such receipts processed in remote field bases, Ramco's aviation suite has provided a new queue page, **Review Records Update**, to enable the user to review and verify all the receipt transactions that have components pending for verification. This page will also enable the records clerk to perform ad-hoc audits of component records that are available in the system.

Change Details

Select the **Review Records Update** user activity that is available in the **Aircraft** business component (Refer exhibit 1 & 2).

Exhibit 1:

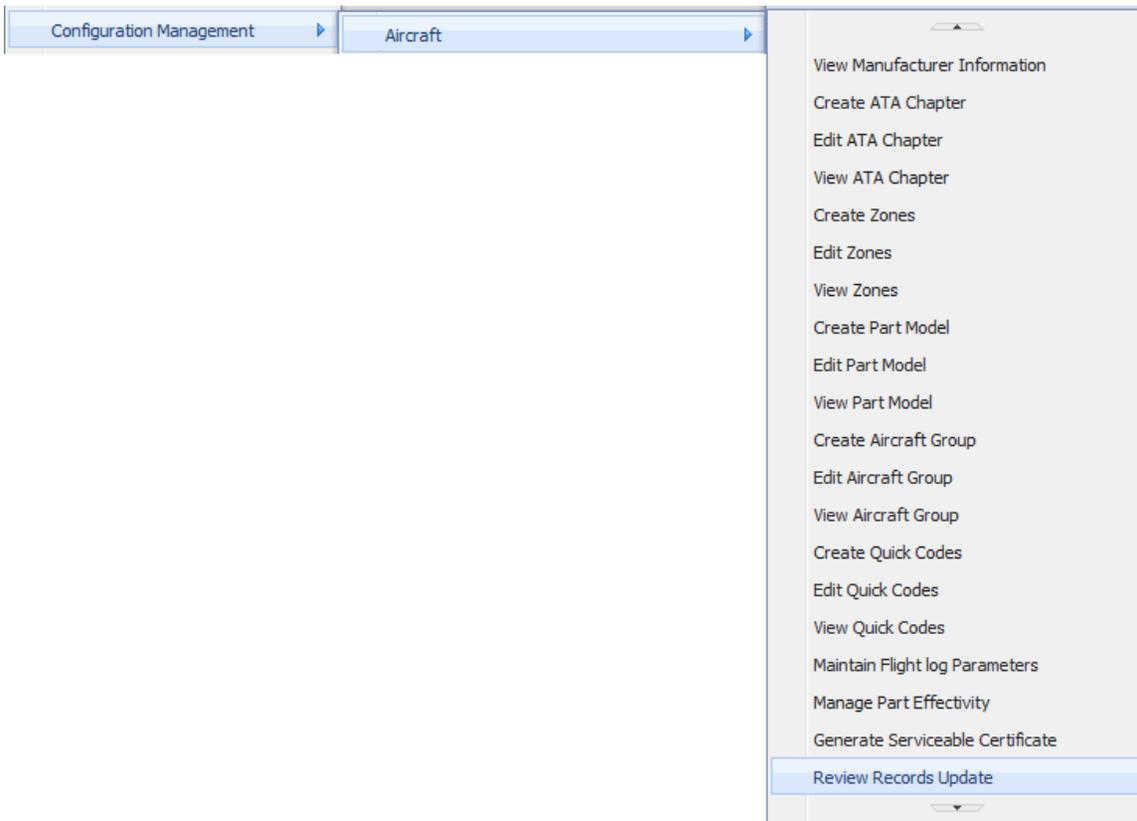
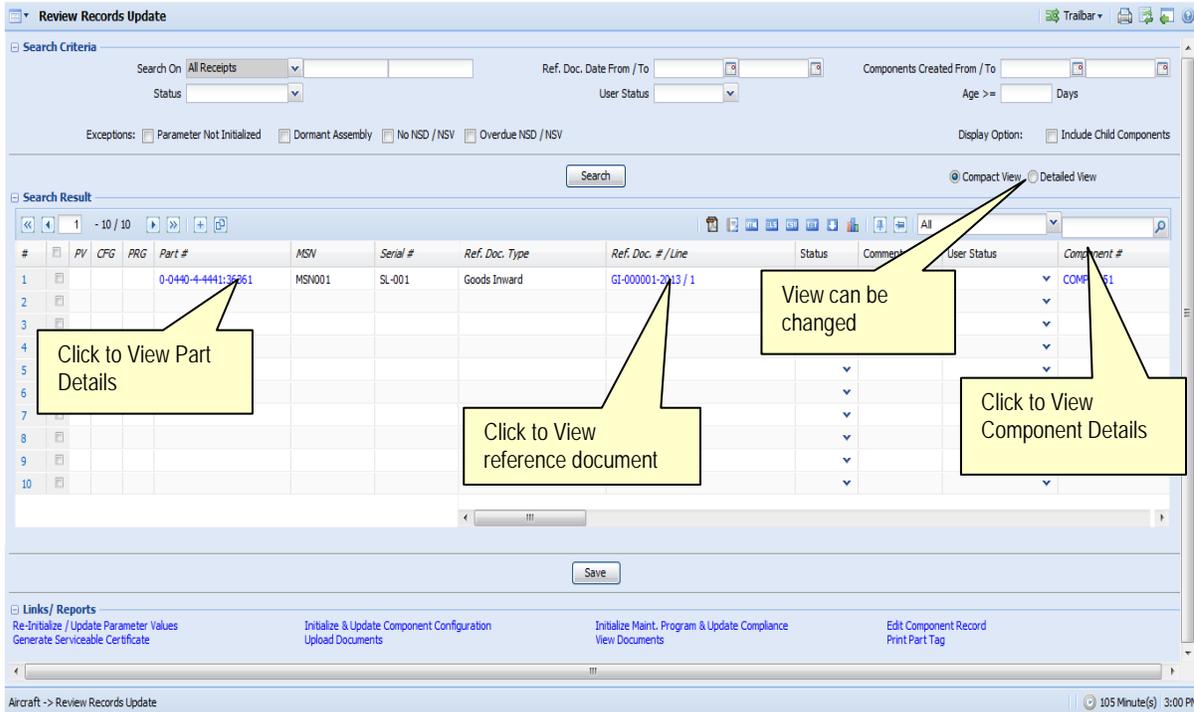


Exhibit 2:



The detailed view will have the following additional columns visible in the multiline,

- Mfr. Part #
- Mfr. #
- Part Description
- EIPN Component # Link
- Component Condition
- TSN
- CSN
- Earliest Due Details
- Shelf Life Expiry Date
- Ref. Doc. Date
- Received Condition
- Receiving Comments
- Certificate Type
- Certificate #
- Certificate Date

- Trading Partner Type
- Trading Partner # / Name
- Age(Days)
- Last Verification Comments

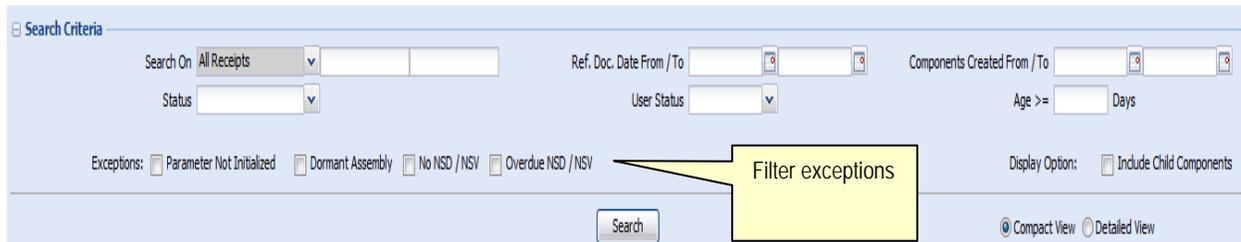
Workflow:

On screen launch, the age will be defaulted if available in the process parameter and the Search On combo will be defaulted with "All Receipts". The multiline will display all the receipts records, with available search criteria, which are pending for verification.

- A) The user can search the receipt records with the following filter criteria.
- a. Search on - The filter will have the following values "All Receipts", "Goods Inward", "Unplanned Receipt", "Loan/Rental Receipt", "Stock Correction", "Part Data Change", "Part Serial Change", "Facility Object", "Packslip #", "Waybill #" and "Receiving Warehouse #" to fetch receipt records, and "Component #", "Part # / Serial #", "Mfr. Part # / Serial #", "Att. Aircraft Reg. #" and "Att. Component #" to fetch the component records.
 - b. Ref. Doc. Date From / To - The user can filter the records for which the date of the reference document is within the specified date range.
 - c. Component Created From / To - This filter will enable the user to filter the records based on the component created date.
 - d. Status - The drop-down will have the following values to filter the search.
 - i. Pending – Fetches records which are pending verification
 - ii. On Hold – Provides ability to put the verification process on hold.
 - iii. Verified – Fetches the component records that are verified. The receipt records which are verified will not be available in the queue to fetch.
 - e. User Status - The filter helps the user to filter the search based on user-defined statuses saved against the record. User status is a user-defined code that can be defined in the 'Quick Codes' activity of the **Aircraft** business component. It is newly added in quick codes.
 - f. Age>= - The search will filter the records which have age greater than or equal to the value entered by the user in this field. The application has the provision to default age for this field in the "Age Horizon" process parameter which is newly added.
 - g. Exceptions – The user can filter the records by clicking the appropriate checkbox
 - i. Parameter Not Initialized - Those component records for which the parameters are not initialized.

- ii. Dormant Assembly - Those component records for which one of the assembly in the active configuration of the component has dormant assembly status.
- iii. No NSD / NSV - Those component records which has the following attributes in the active maintenance program for the component,
 - "Prog. Item Type" having value "Block", "Non-Block" or "Base".
 - "Initiated / Reset by" set as "Self-Compliance".
 - "Schedule Status" set as "active"
 - And task with No NSD / NSV for recurring task or No LPD / LPV & No NSD / NSV for one time task.
- iv. Overdue NSD / NSV - Those component records which has overdue task.
- h. Include Child Component - Enables the user to review the complete assembly of components listed in search.

Exhibit 3:



- B) The component records that are fetched will be displayed in the Search Results column. The following columns will provide the below notification / action to the user once the records are fetched.
 - a. The PV (Parameter Value) column will display the following icons indicating the below,
 - (Not Available) - If the component in the record has no consumption parameter.
 - (Exception Current) – If one of the component’s consumption parameter value has not been initialized.
 - (Complete) - If all the component’s consumption parameter values are initialized.
 - b. The CFG (Configuration) column will display the following icons indicating the below,

 (Not Available) - If an active configuration is not available for the component.

 (Exception Current) - If the assembly status of active component configuration is Dormant / Error.

 (Complete) - If the assembly status of active component configuration is Complete.

c. The PRG column will display the following icons indicating the below,

 (Not Available) - If the component in the record has no active maintenance program.

 (Exception Current) - If the component has the following attributes in the active maintenance program for the component,

- "Prog. Item Type" having value "Block", "Non-Block" or "Base".
- "Initiated / Reset by" set as "Self-Compliance".
- "Schedule Status" set as "active"
- And task with No NSD / NSV for recurring task or No LPD / LPV & No NSD / NSV for one time task.

(or)

If the component has overdue task.

 (Complete) - If the component has the following attributes in the active maintenance program for the component,

- "Prog. Item Type" should have value "Block", "Non-Block" or "Base".
- "Initiated / Reset by" should be set as "Self-Compliance".
- "Schedule Status" set as "active"
- And task with NSD / NSV for recurring task or LPD / LPV or NSD / NSV for one time task.

(or)

If the component does not have overdue task.

d. Last Verification Comments - The latest comment that is entered against the record will be fetched in this column, if available.

e. TSN - The cumulative value of the flight hours mapped as base parameter to the component will be displayed.

f. CSN - The cumulative value of the flying cycles mapped as base parameter to the component will be displayed.

Save Logic:

- When the status of receipt line is set as “Verified” and save is clicked, the component will be verified and the receipt line will be removed from the queue.
- The user can also mark the record as “On-hold” to verify the record line later.

The following process parameter is also newly added.

- Entity Type - Tech Records Process Control
- Entity - Review Records Update
- Process Parameter - Allow maintenance issue of components with pending technical records update?
- Behavior - If the option is set as “Not Allowed”, the component will not be issued if the component is pending verification.

WHAT'S NEW IN CONFIGURATION?

A. Enhancements in piece parts screen of part configuration

Reference: AHBE-12049

Background

Boeing 787 e-enabling capability provides a new way to distribute software parts to the airplanes electronically and also to route data from the airplane, including the “As- flying” configuration of LSAPs (Loadable Software Airplane Parts). All 787 software parts will be stored electronically in a data center. In a similar manner, the LSAP configuration data for each airplane will be stored and managed electronically from an Operations Control Center.

Ramco's Aviation M&E solution enables effective tracking of software parts as piece parts within each Part Configuration defined in the system.

Change Details

Key highlights:

- a. Sequencing of piece parts in configuration.
- b. Facility to define of Position code and description for piece part positions.
- c. Capability to define of piece part position status.

The **Edit Piece Part List** page available in the **Build Part Configuration** activity and **View Piece Part List** page available in the **View Part Configuration** activity, have been modified so as to easily enable tracking of software parts. All piece parts including position controlled piece parts, can now be tracked within the **Edit Piece Part List for Part** page. [**Edit Piece Part Position Details** link which was earlier available in **Edit Piece Part List for Parts** will no longer be available]

The snapshots of the new interfaces are given below:

Exhibit 1: Edit Piece Part List for Components (Build Part Configuration activity)

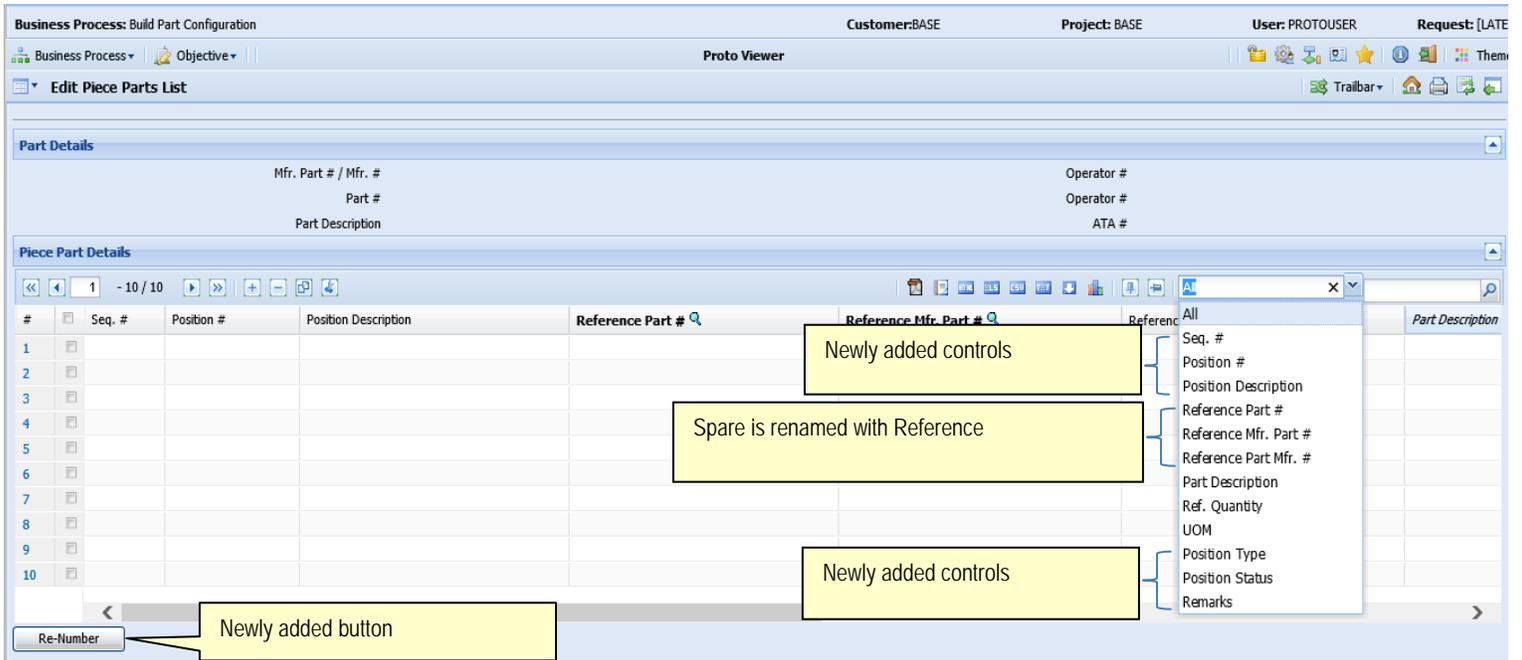
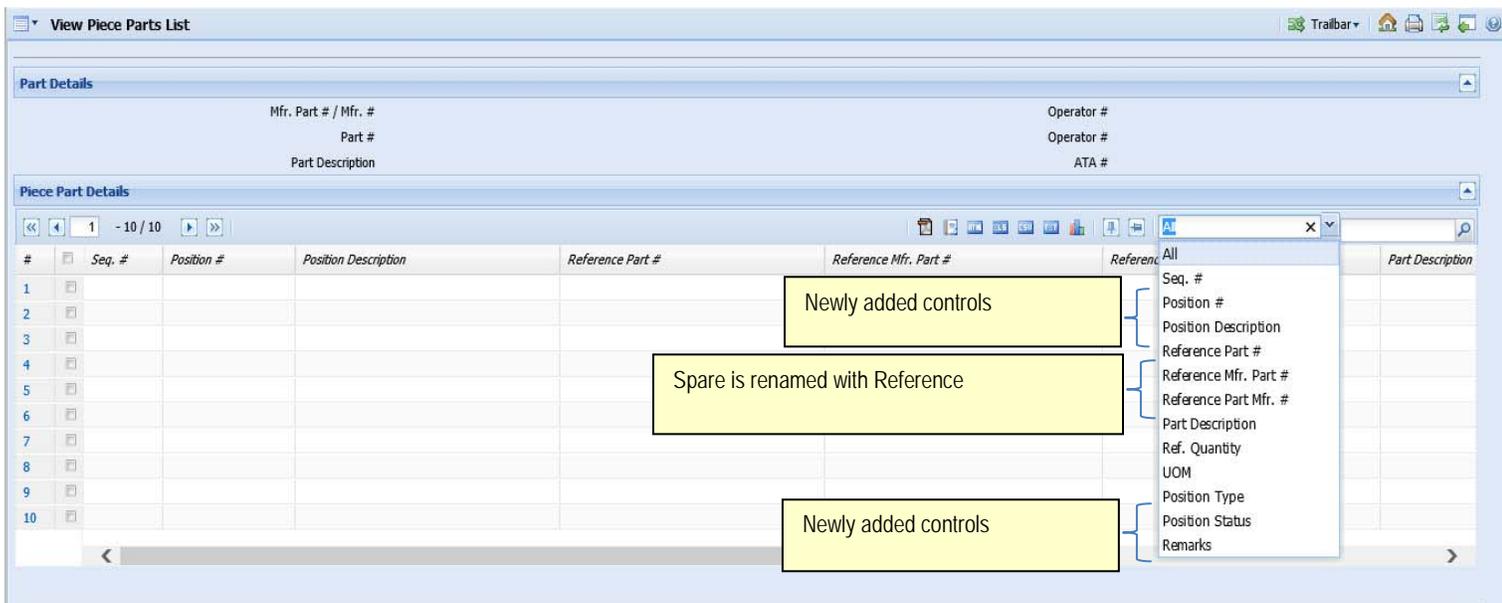


Exhibit 2: View Piece Part List for Components (View Part Configuration activity)



B. Edit and View Piece Part List for Components

Reference: AHBE-1000

Background

Edit Piece Part List for Components screen basically allows user to enter the Piece Parts of Part Type 'Expendable'. This piece parts can be tracked at position code level against the Specific Component Configuration. User can update the Piece Parts with reference to the quantity required. Therefore this screen helps user to maintain the Piece part configuration with reference to components that are installed on the Aircraft.

View Piece Part List for Components screen helps user to review the latest Piece Part Configuration Changes as updated by the user.

Change Details

On launch of **Edit Piece Part List for Components** screen, the multiline section will display the counts of all the Piece Parts of specific component attached to the aircraft, under the below mentioned classifications.

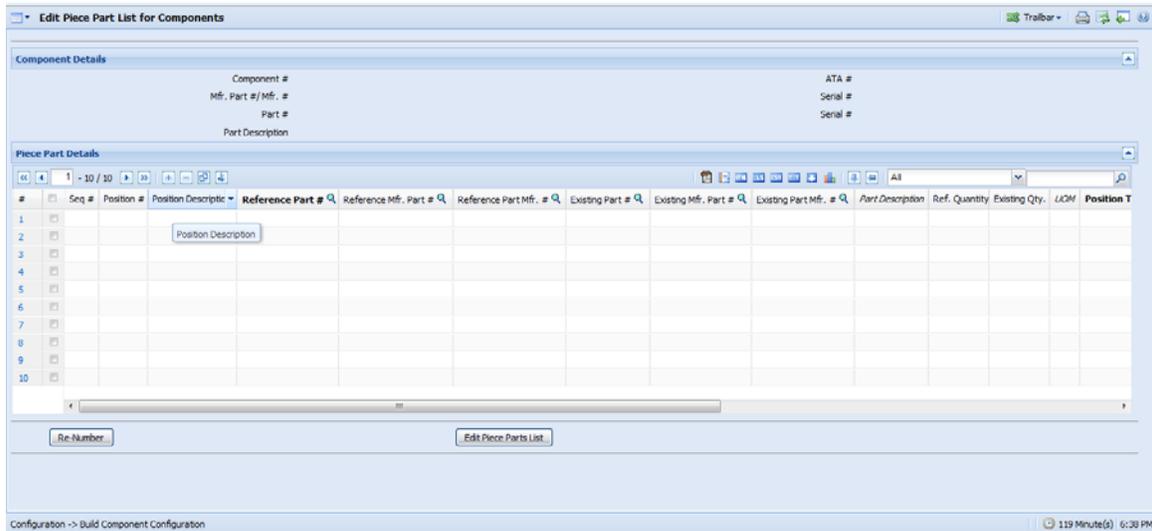
- A. The following Columns are added newly in the **Edit Piece Part List for Components**.
 - (i) Seq. No,
 - (ii) Position #,
 - (iii) Position Description,
 - (iv) Existing Mfr. Part #, (Help Required)
 - (v) Existing Part #, (Help Required)
 - (vi) Existing Part Mfr. #, (Help Required)
 - (vii) Existing Qty.,
 - (viii) Trackable (Hidden Column),
 - (ix) Position Type,
 - (x) Position Status,
 - (xi) Ref. Doc #
 - (xii) Remarks
- B. Columns removed from **Edit Piece Part List for Components** screen - Prefix for Position #
- C. Existing Columns of **Edit Piece Part List for Components** has to be renamed as - Reference Part #, Ref. Part Mfr. #, Ref. Mfr. Part #, Reference Qty.
- D. The **View Piece Part List for Components** screen will be seen with following New columns :

- (i) Seq. No,
- (ii) Position #,
- (iii) Position Description,
- (iv) Existing Mfr. Part #,
- (v) Existing Part #,
- (vi) Existing Part Mfr. #,
- (vii) Existing Qty.,
- (viii) Trackable (Hidden Column),
- (ix) Position Type,
- (x) Position Status,
- (xi) Ref. Doc #
- (xii) Remarks

Note: Points B, C & E applicable for **View Piece Part List for Components** screen.

E. Link – **Edit Piece Part Position Details** Link has to be removed.

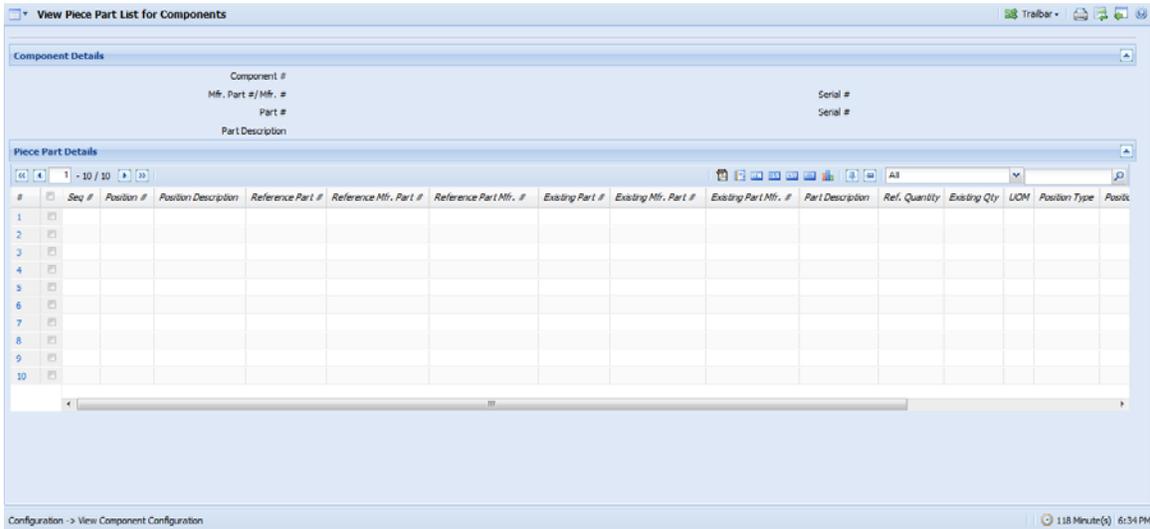
Edit Piece Parts List for Components



Workflow:

- C) The details of the piece parts can be modified, updated and maintained through this screen.

View Piece Parts List for Components



WorkFlow:

- A) All the latest saved records as available in the **Edit Piece Parts list for Components** screen are available in this **View Piece Part List for Components** screen.

c. Ability to display piece parts and related positions in the configuration help

Reference: AHBE-10702

Background

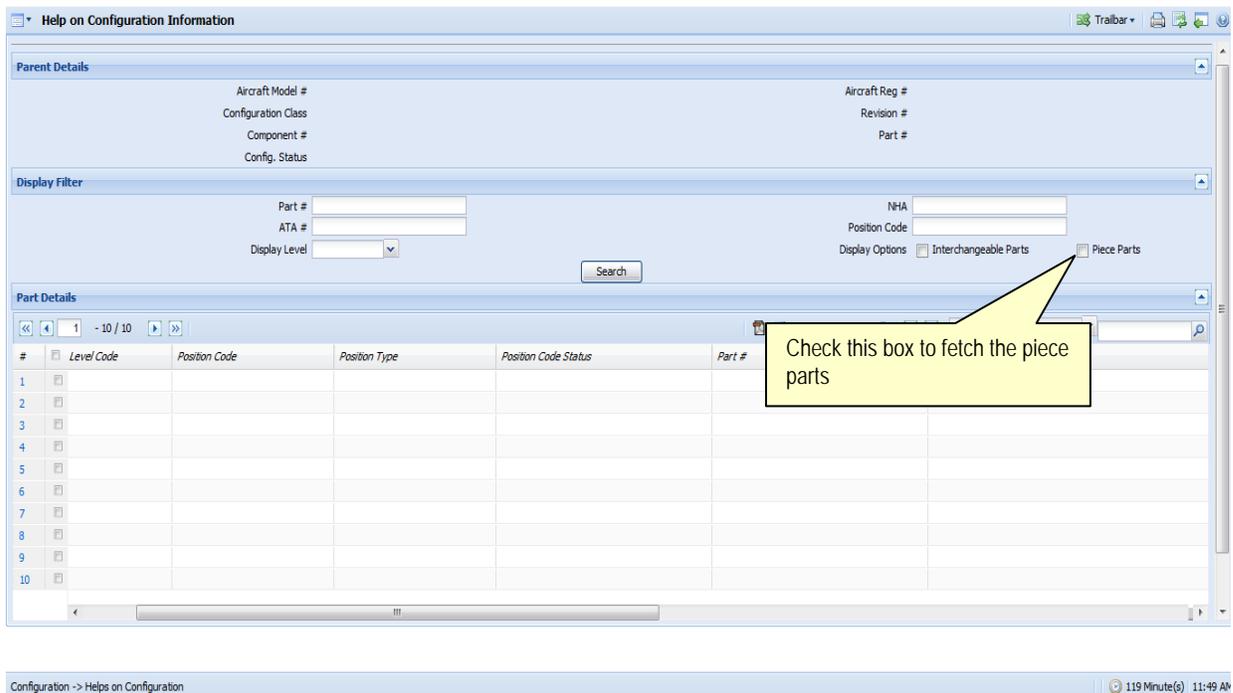
Ramco’s M&E solution has the ability to track software parts as piece parts within the component configuration.

The **Help on Configuration** page has been enhanced so as to list piece parts also.

Change Details

The screen is enhanced to show piece parts defined in the component configuration. The user can fetch the piece parts and its details in the **Help on Configuration** screen, by checking the piece parts checkbox in the screen.

Exhibit 1:



Display Filter

The fetched piece part details can be filtered using the following search criteria.

- Part # - The piece parts can be filtered directly by providing the Part # of the piece parts in this criterion.

- NHA – All the piece parts that are defined for the NHA Part # or any of its sub-assemblies will be fetched based on the display level option. The Piece Parts have the same Level Code of the Part # to which it is attached.
- ATA # - The piece parts in the configuration that belongs to the particular ATA will be fetched. For piece parts, ATA # provided in the parts **Maintain Maintenance Info.** screen will be considered.
- Position Code – The piece parts that belong to a particular position in the configuration will be fetched.
- Display Level – The piece parts that are defined for the parts in the specified level will be fetched. The Piece Parts have the same Level Code of the Part # to which it is attached.

Part Details:

The following columns have been added in the multiline,

- NHA Part # - This will display the part # of the Next Higher Assembly to which the part is attached. If the Part is the highest in the assembly, the same part # will be displayed as NHA Part #.
- NHA Serial # - This will display the serial # of the Next Higher Assembly to which the part is attached. If the Part is the highest in the assembly, the same serial # will be displayed as NHA serial #.
- Qty – The quantity of the part defined in the configuration is displayed. If existing part # is available for the piece part, its quantity will be displayed. Else, the reference part # quantity will be displayed.

If multiple piece parts are fetched in the multiline, it will be sorted based on the level code followed by the sequence # of the piece parts.



Note: The system will list only those parts for which the position status is active. For piece parts, both the piece part and the NHA, position status should be active. And only the piece parts defined in component configuration will be fetched.

WHAT'S NEW IN CONFIGURATION REPORT?

A. Facilitate user to view the Alternate Part # in Model Configuration Report

Reference: AHBE-12572

Background

With this enhancement, Ramco facilitates user to view the Direct Alternate Part # for the Position part in **Model Configuration Report**.

Change Details

As seen in the below exhibit, Alternate Part # field has been added in **Model Configuration Report**.

Direct alternate parts belonging to the position part will be displayed in Alternate Part # field in **Model Configuration Report**.

Exhibit 1:

Model Configuration Report

AIRCRAFT MODEL #		MODEL DESCRIPTION				Jet Airways (India) Limited	
A310		Airbus 310 Family				64, Sardar Patel Road, Taramani., Chennai, Tamil Nadu, India 600113	
MANUFACTURER #		CONFIGURATION ID	CONFIGURATION STATUS	REVISION #			
AIRBUS		REGULAR	Active	3			
SEQ NO#	LEVEL CODE	POSITION CODE	PART #	MANUFACTURER PART #	NHA	ZONE #	
	COMP. MAND	POSITION TYPE	PART DESCRIPTION	BASE PART #	ALTERNATE PART #	ATA #	
1	1.1 No	1 Others	0-1000PSI:2915Y PRESSURE, 3" DIA GAUGE	0-1000PSI 0-1000PSI:2915Y	A310 0-1000PSI:61349 , 0-1000PSIG:61349 , 1000PSIG:61349 , 138-70-0369:61349 , 138-70-0369:99999 , 99974A1004:99999	100 00-00	

Alternate Part # columns is added

B. Aircraft Configuration Report layout change

Reference: AHBE-12573

Background

Currently, Position part's alternate is displayed in the Model Configuration report in a separate column. Hence the Alternate part column from the **Aircraft Configuration Report** is now removed for effective space utilization.

Change Details

As seen in the below exhibit Alternate Part # column has been removed from **Aircraft Configuration Report**.

Also, control name – “Body Station” is changed to “Position Formula”. Formula defined for the position in configuration will be displayed in the Position formula.

Exhibit 1:

Aircraft Configuration Report

			Aircraft Configuration				Jet Airways (India) Limited 64, Sardar Patel Road, Taramani, Chennai, Tamil Nadu, India 600113				
AIRCRAFT REG #		AIRCRAFT MODEL #		VARIABLE TAB #		MFR SERIAL #		NOSE #		AIRCRAFT MAKE	
VT-RMC		A310		56		56		56		AIRBUS	
REVISION #		CONFIG STATUS									
12		Fresh									
SEQ #	LEVEL CODE	POSITION CODE	PART #	COMPONENT #	SERIAL #	DATE OF ATTACH	ZONE #	POSITION FORMULA	TSN		
		POSITION TYPE	PART DESCRIPTION		NHA	TIME OF ATTACH	ATA #		CSN		
1	1.3	3 Engine	CFM56-2C1:07482 CFM56-2C1	COMP-002544	H45 VT-RMC	01-Dec-2013 14:32:27	100 00-00		21.57		

WHAT'S NEW IN ADDITIONAL REPORTS CONFIGURATION MANAGEMENT?

Facilitate user visibility on Part Description and Remaining Life value for the component in Component life Report.

Reference: AHBE-3646

Background

In Ramco Aviation solution, on mapping the parameter for the component, user can define 'Life parameter' for the component in the **Consumption and Range Parameter** page.

Currently, Ramco facilitates the user to view only 'Remaining Life (%)' for the lified parameter in component life Report.

Change Details

With the introduction of this new feature, Ramco facilitates user to view **Remaining Life (Value)** for the lified parameter in Component life report and addition to this facilitates user to view the **Part Description** also.

Impacted controls references:-

The following are the controls added in the Component life Report. The Impacted controls are highlighted. Refer **Exhibit 1**.

- ▶ Remaining Life (Value)
- ▶ Part Desc.

Exhibit 1:

		COMPONENT LIFE REPORT					ABC COMPANY LIMITED Chennai, Tamil Nadu, India.			
AIRCRAFT REG # : CMP-1 DISPLAY OPTION : Lified Components REMAINING LIFE (%) <= :										
Level	Position Code	Part #	Serial #	Part Desc.	Component #	Parameter	Present Value	Ultimate Value	Remaining Life(Value)	Remaining Life(%)
AIRCRAFT REG #:CMP-1										
1.1	EM001	015T0805-10:81205	CMP-1-1	ENGINE EXHAUST NOZZLE	COMP-001618	EC	500.00	1000.000	500.00	50.00
1.1	EM001	015T0805-10:81205	CMP-1-1	ENGINE EXHAUST NOZZLE	COMP-001618	EH	500.00	1000.000	500.00	50.00
1.1.1	Engine P1	0009628:51563	CMP-1-3	T/REV HOLD OPEN ROD	COMP-001620	FC	1000.00	1000.000	0.00	
1.1.2	Engine P2	0009629:51563	CMP-1-6	T/REV LIFT SLING SLING	COMP-001622	FC	1000.00	1000.000	0.00	
1.1.3	Engine P3	012N8461-18:81205	CMP-1-7	COWL, CORE COWLING	COMP-001623	EC	0.00	1000.000	1000.00	100.00

WHAT'S NEW IN MAINTENANCE PROGRAM?

A. Facility to retrieve alternate part # in Position Based Schedule screen on search by alternate part

Reference: AHBE-3496

Background

In Ramco Aviation solution, when user searches with Part # in **Maintain Position Based Schedule** page, the system retrieves the part # which is available in the Model Configuration.

Example:

- ▶ Part (P1) is available in the Model Configuration of the model (A320) and position (LHS).
- ▶ Part (P2) is defined as alternate part / interchangeable part for the Part (P1). Alternate Part is defined in the **Maintain Alternate Part Nos** page of the **Part Administration** business component. Interchangeable part is defined in the Model Configuration of the **Configuration** business component.
- ▶ If the user searches for the alternate part (P2) in the **Maintain Position Based schedule** page, currently Ramco will not retrieve the alternate part (P2) in the multiline.

Change Details

With the introduction of this new feature, if the user searches with alternate part (P2) in the **Maintain Position Based Schedule** page, but the alternate Part (P2) is not available in the configuration, Ramco will retrieve the alternate part (P2) and configuration details.

Example:

- ▶ Part (P1) is available in the model configuration of the model (A320) and position (LHS).
- ▶ Part (P2) is defined as alternate part / interchangeable part for the Part (P1).
- ▶ If the user searches for the alternate part (P2) in the **Maintain Position Based Schedule** page, Ramco will retrieve the alternate part (P2) in the multiline with Model (A320) and position (LHS).

B. Ability to restrict the modification of Eng.Doc task attributes in Maintenance Program

Reference: AHBE-795

Background

Currently in Ramco Aviation Solution, Eng.Doc task attributes can be modified in Maintenance Program.

Change Details

With the introduction of this new feature, the user can modify the Eng.Doc task attribute in Maintenance Program based on the option set for the Eng. Doc type in **Define Process Entities** activity.

- If the process parameter “Allow Modification of Eng. Doc task in ‘Maintenance Program’ is set as “Not Allowed” for the Eng. Doc type in **Define Process Entities** activity, the user cannot modify the Eng.doc task attributes in **Maintenance Program / Initialize Maint. Prog. & Update Compliance** activity.
- If “Allow Modification of Eng. Doc task in Maintenance Program” is set as “Allowed” for the Eng. Doc type in **Define Process Entities** activity, the user can modify the Eng.doc task attributes in **Maintenance Program / Initialize Maint. Prog. & Update Compliance** activity.

Exhibit - 1:

Impacted Screen references:

The following are the controls of values that can be modified, if the option is set as “Not Allowed”:

Sl. NO	Screens	Controls / Columns
1	Edit Maintenance Program (Model Program) Edit Maintenance Program (Aircraft Program)	None of the values can be modified.
2	Edit Schedule Information (Model Program) Edit Schedule Information (Aircraft Specific Program)	None of the values can be modified.
3	Edit Schedule Date / Value (Aircraft Specific Program)	Next Schedule date/ Value and Last Performed date/ Value can be modified
4.	Maintain Component Maintenance Program Maintain Part Programs	None of the values can be modified.
5	Edit Date Base Schedule (Maintain Part Programs) Edit Date Base Schedule (Maintain Component Maintenance Programs) Update Work Units to Program	None of the values can be modified.
6	Edit Usage Base Schedule (Maintain Part Programs) Edit Usage Base Schedule (Maintain Component Maintenance Programs) Update Work Units to Program	None of the values can be modified.
7	Initialize Maintenance Program and Update Compliance Screen	Next Schedule date/Value and Last Performed Date/Value can be modified
8.	Update Work Units to Program (Action: Over Write/Delete)	None of the values can be modified.

Enhancement Notification

-  *Note: Addition of Eng. Doc task with Engineering Document Reference # to Program is allowed.*
-  *Schedule addition and Schedule deletion of engineering document task is not allowed in Maintenance Program.*
-  *User can add the Eng. Doc # for the existing task in Maintenance Program even if the task is not effective for the Engineering document, however, the user cannot modify the task's attribute in Maintenance Program, if the option is set as "Not Allowed". (If the option is set as "Allowed" then the user can modify this task attribute in Program)*
-  *User can add the Eng. Doc task and Eng. Doc # in Model program even if the Aircraft associated to the Model program is not effective for the Engineering Document, however the user cannot modify the task attributes in Maintenance Program, if the option is set as "Not Allowed".*

C. Facility to consider threshold for computing Next Schedule Date / Value for task which is getting initiated based on initiate schedule relationship.

Reference: AHBE-3231

Background

Currently in Ramco Aviation solution, if the task is initiated based on initiate schedule relationship, Next Schedule Date / Value will be computed for related task by adding the Last Compliance date /value of parent task with interval of the related task (initiated task).

Change Details

With the introduction of this new feature, if the task is initiated based on initiate schedule relationship and if

- Last Performed date/value is not exists for the task (related task) in program then Next Schedule Date/Value will be computed, by adding Last Performed Date/Value of parent task with threshold value of the related task and system will update
 - Next Due Calc. On as 'RTC : Initial Interval'
 - Calc. Ref Date / Value as 'Parent task Last Performed date/value'
 - Last Schedule Date / Value as 'Not Applicable'
- Last Performed Date/value exists for the task (related task) in program then Next Schedule Date/Value will be computed, by adding Last Performed Date/Value of parent task with threshold value of the related task and system will update
 - Next Due Calc. On as 'RTC'
 - Calc. Ref Date / Value as 'Parent task Last Performed date/value'
 - Last Schedule Date / Value as 'Original Schedule Date/ Value'



Note: If interval alone is provided for the related task, then system will consider interval to compute Next Schedule Date/Value, even if the task (related task) is not already complied.

D. Ability to Compute Next due for a task on every Attachment of the component

Reference: AHBE-8611

Background

Currently in Ramco Aviation, system will reset Next Schedule Date on off-wing compliance of a task and compute Next schedule date on first attachment of the component after off-wing compliance, if the 'Update Basis' is set as "Installation Date".

In certain business scenarios, task needs to be performed on every attachment of the component to an Aircraft.

Change Details

With the introduction of this new feature, Ramco will compute the Next Schedule Date / Next Schedule Value on attachment of the component to an Aircraft, if the 'Reset on Attachment' is selected as "Every Attachment" in **Component Maintenance Program**.

System will reset the Next Schedule Date / Next Schedule Value as blank on compliance of the task (On-wing / off-wing compliance)

The 'Reset on Attachment?' control is added in the following user interface.

- Maintain Part Program (Drop-down control)
- Maintain Component Maintenance Program (Drop-down control)
- Update Work units to Program (Drop-down control)
- Initialize Maintenance Program & Update Compliance (Drop-down control)
- View Part Program (Display only)
- View Component Maintenance Program (Drop-down control)

During Compliance of component task,

1. If 'Reset on Attachment' is selected as "Not Required" in **Component Maintenance Program**, then compute schedule as below:

- a. *Next Schedule Date = Last Performed Date + Interval*
- b. *Next Schedule Value = Last Performed Value + interval*

2. If 'Reset on Attachment' is selected as "First Attachment" in **Component Maintenance Program** and the component is attached in an Aircraft, then compute schedule as below:

- a. *Next Schedule Date = Attachment date + Interval*
- b. *Next Schedule Value = Last Performed Value + Interval*

3. If 'Reset on Attachment' is selected as "First Attachment" in **Component Maintenance Program** and the component is not attached in an Aircraft, then compute schedule as below
 - a. *Next Schedule Date = Blank*
 - b. *Next Schedule Value = Last Performed Value + Interval*

4. If 'Reset on Attachment' is selected as "Ever Attachment" in **Component Maintenance Program** and the component is attached in an Aircraft, then compute schedule as below:
 - a. *Next Schedule Date = Blank*
 - b. *Next Schedule Value = Blank*



Note: During backdated compliance (Last Performed date is lesser than the Component attachment date) system will compute NSD as Attachment date + interval.

Key points to be noted:

- User can change the 'Reset on Attachment'; for a task in **Component Maintenance Program** but system will not compute the Next Schedule Date / Next Schedule Value at that point of time. System will re-compute the Next Schedule Date / Value on next attachment of the component to an Aircraft
- After compliance, if user removes the Last Performed Date / Value for an Every Attachment task in **Edit Date Base Schedule / Edit Usage Base Schedule**, then system will compute Next Schedule Date as Attachment Date + Threshold and Next Schedule Value as Parameter on Attachment date and time + threshold.

Exhibit 1:

Schedule Computation logic: Reset on Attachment – First Attachment

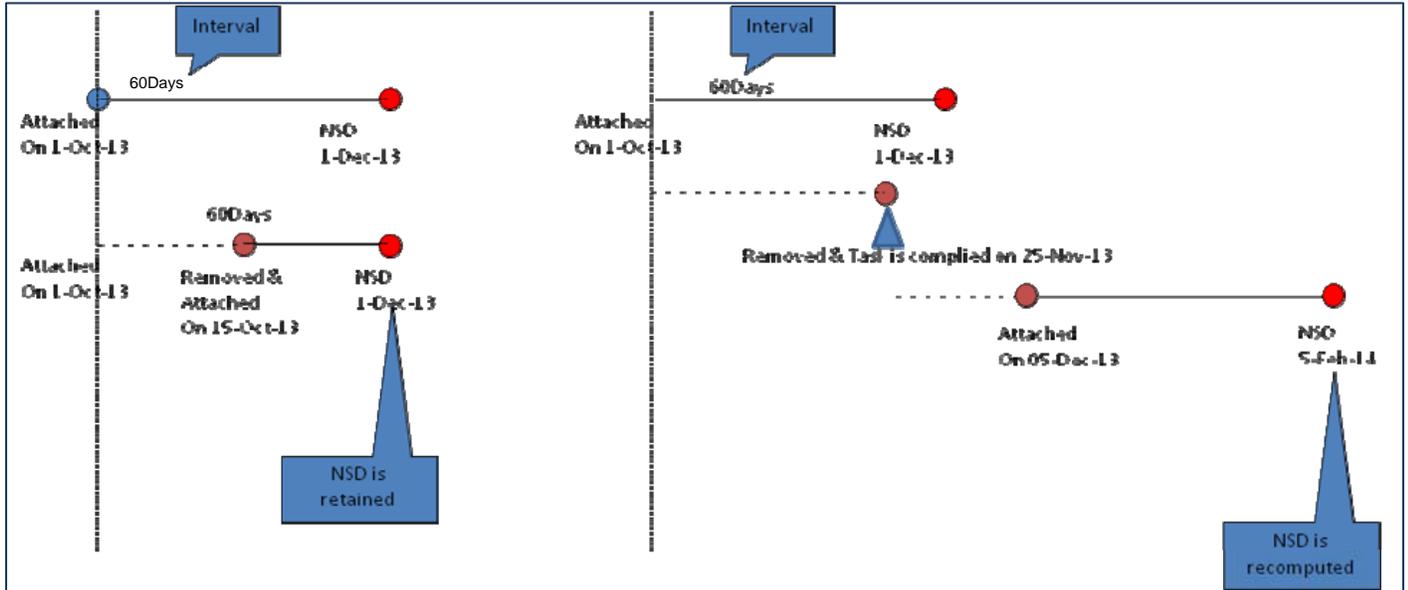


Exhibit 2:

Schedule Computation logic: Reset on Attachment - Every Attachment

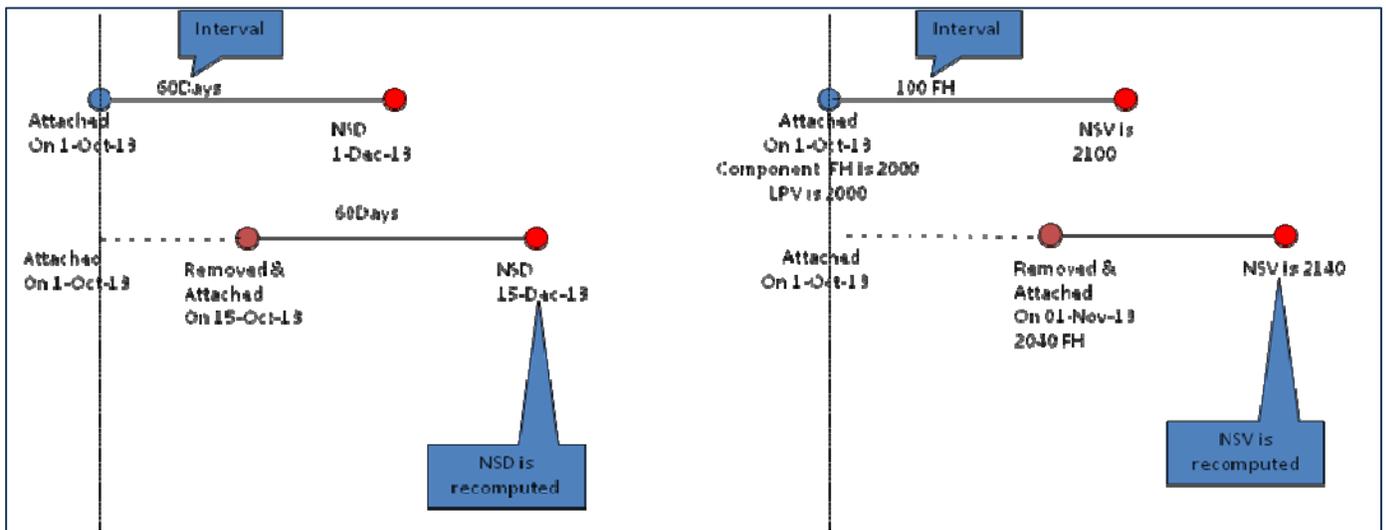


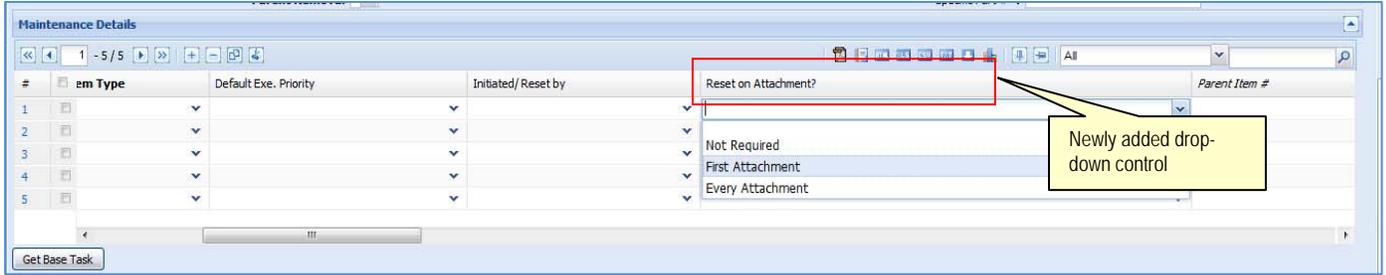
Exhibit 3:

Following are the schedule computation for a task on different instance

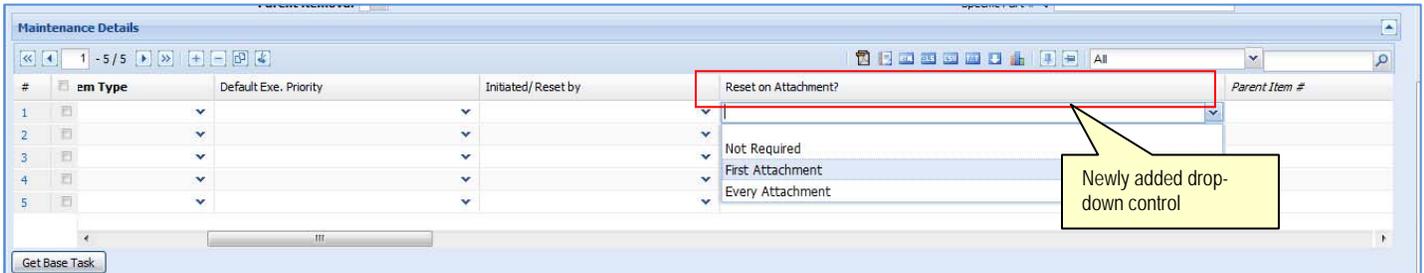
Instance	Computation of NSD/NSV for a task, if Reset on Attachment is set as Every Attachment
On Attachment of component to an Aircraft	Next Schedule Date = Installation Date + Threshold Next Schedule Value = Parameter Value on Component attachment date + Threshold
Amendment of Component Attachment	Next Schedule Date = Installation Date + Threshold Next Schedule Value = Parameter Value on Component attachment date + Threshold
On Removal of component from an Aircraft	Next Schedule Date = Blank Next Schedule Value = Blank
Reverse the Removal of component	Next Schedule Date = Installation Date + Threshold Next Schedule Value = Parameter Value on Component attachment date + Threshold
Attachment after Task Compliance	Next Schedule Date = Installation Date + Interval Next Schedule Value = Parameter Value on Component attachment date + Interval
Compliance Deletion / Reverse	Next Schedule Date = Installation Date + Threshold Next Schedule Value = Parameter Value on Component attachment date + Threshold If the component is not attached then update Next Schedule Date and Next Schedule Value as Blank
Manually update the Next Schedule Date & Value	Next Schedule Date = user entered date Next Schedule Value = user entered value If the component is not attached system will display an error.
Changes in Threshold / Interval Maintain Activate Task/ Edit Date Base Schedule/Edit Usage Base Schedule/Position Base Schedule/Initialize Maintenance Program & Update Compliance	Next Schedule Date = Installation Date + Threshold Next Schedule Value = Parameter Value on Component attachment date + Threshold If the component is not attached in an Aircraft don't compute.
Parameter Value Updation	Compute Next Schedule Value = Parameter Value on Component attachment date + Threshold/interval

Exhibit 4:

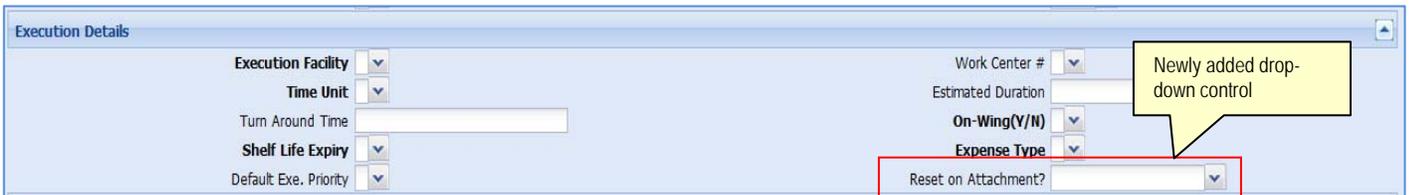
1. Part Program



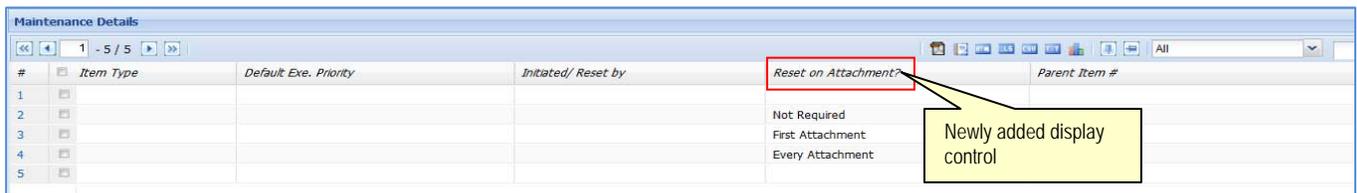
2. Component Maintenance Program:



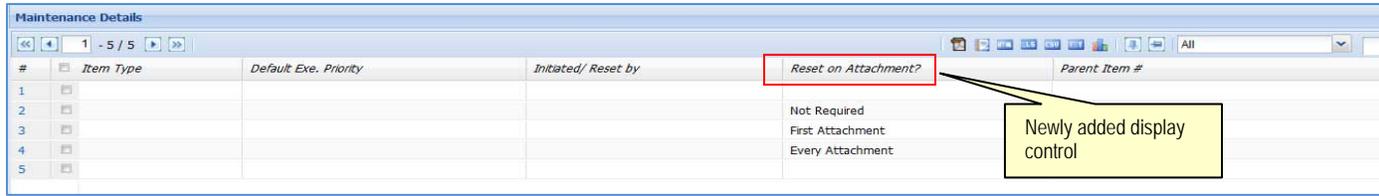
3. Update Work Units to Program:-



4. View Part Program



5. View Component Maintenance Program



6. View Program Information



Exhibit 5:

Data Migration logic - Reset on Attachment:

Parts / Components program tasks which have

- Only date based schedule with 'Update Basis' as "Installation Date" will be updated with "First Attachment".
- Only date based schedule with "Update Basis' as "Last Performed Date" will be updated as "Not Required".
- Only usage based schedule will be updated as "Not Required".
- Date and usage based schedules and having 'Update Basis' as 'Installation Date' will be updated as "First Attachment".

*Note: The above enhancement is currently not done in **Initialize Maintenance Program** screen. It will be released in next enhancement shipment.*

E. Visibility of Next Schedule Date / Value Computation Basis & control of Next Schedule Date / Value modification

Reference: AHBE-9953

Background

Currently in Ramco Aviation, the system computes Next Schedule Date / Value for a task based on Induction date, Threshold and LPD / LPV etc.

Example:

On association of task to a Program, the system computes Next Schedule Date as Induction date / Mfr. Date + threshold & Next Schedule Value as Threshold.

During Compliance of Task for which update basis is 'Time Window', and if,

- The compliance date falls within the tolerance value (date range), then system computes NSD as Previous schedule Date + Interval.
- The compliance date falls outside the tolerance value (date range) then system computes NSD as LPD + Interval.

Since various computation methods exists for computing NSD / NSV for the task, visibility of computation reference is brought into the screens.

Change Details

As part of this enhancement, the following controls have been added across program and **Initialize Maintenance Program & Update Compliance** screen.

- Next Due Calc. On – Display only
- Calc. Ref. Date / Value – Display only
- Last Schedule Date / Value – Display only
- Change Type – Drop-down

Following value will be loaded in Change Type drop-down

- "Blank"
- "Correction"
- "Re-Baseline"

With the introduction of this new feature, when the Next Schedule Date / Value for the task got computed in Program, system will display the following values.

- Next Due Calc. On – This helps the user to understand on what reference basis the NSD/V is getting computed. A detailed possible combination is depicted in the Matrix.

- Calc. Ref. Date / Value – This helps the user to understand on what reference date/value the NSD/V is getting computed. A detailed possible combination is depicted in the Matrix.
- Last Schedule Date /Value - This will display the actual schedule date / value of task on last compliance.

This will provide the clear idea for the user on Next Schedule Date / Value computation logic.

Impacted controls references:

Next Due Calc. On, Calc. Ref. Date / Value, Last Schedule Date / Value and Change Type controls are added in the following User Interfaces.

- Edit Schedule Date / Value (Aircraft Maintenance Program)
- View Program Information (Aircraft Maintenance Program)
- Edit Date Base Schedule (Component Maintenance Program)
- Edit Usage Base Schedule (Component Maintenance Program)
- View Date Base Schedule (Component Maintenance Program)
- View Usage Base Schedule (Component Maintenance Program)
- Initialize Maintenance Program & Update Compliance



*Note: Change Type drop-down is not added in **View Program Information, View Date Base Schedule and View Usage Base Schedule** interfaces.*

Exhibit 1: Impacted Controls are highlighted in the below screen shots:

1. Edit Schedule Date / Value (Aircraft Maintenance Program)

2. View Program information (Aircraft Maintenance Program)

Program Task Details

Newly added controls

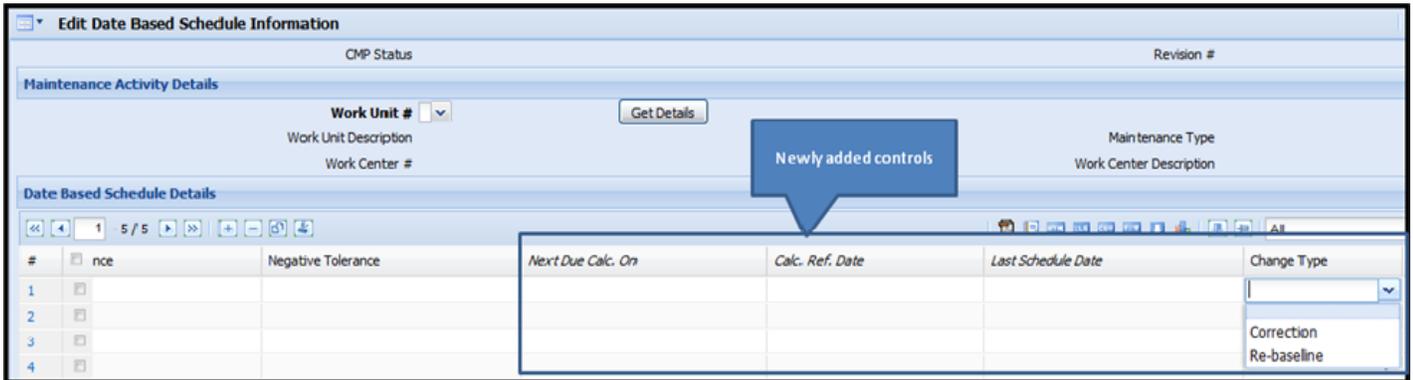
S.	Parameter	Time Unit	Threshold Value	Interval	Last Pfd. Date	Last Pfd. Value	Next Sch. Date	Next Sch. Value	ATA #	Current Value	Rem. Value	Maint. Prog #	Prog. Prog #	Next Due Calc. On	Calc. Ref. Date	Last Schedule Date	Calc. Ref. Value	Last Schedule Value
	Calendar	Days	30.00	10.00	13-Mar-2014		23-Mar-2014		00-00		10 Days	AMP-1	0	Actual Completion	13-Mar-2014	31-Jan-2014		
	°C		100.00	20.00				135.00	00-00	100.00	35.00	AMP-1	0	Manual : Correction			135.00	
	°H		100.00	20.00				135.00	00-00	100.00	35.00	AMP-1	0	Manual : Correction			135.00	
	Calendar	Days	47.00	20.00					00-00			AMP-1	0					
	Calendar	Days	100.00	30.00	07-Mar-2014		06-Apr-2014		00-00		24 Days	AMP-1	0	Actual	07-Mar-			

Page 1 of 2

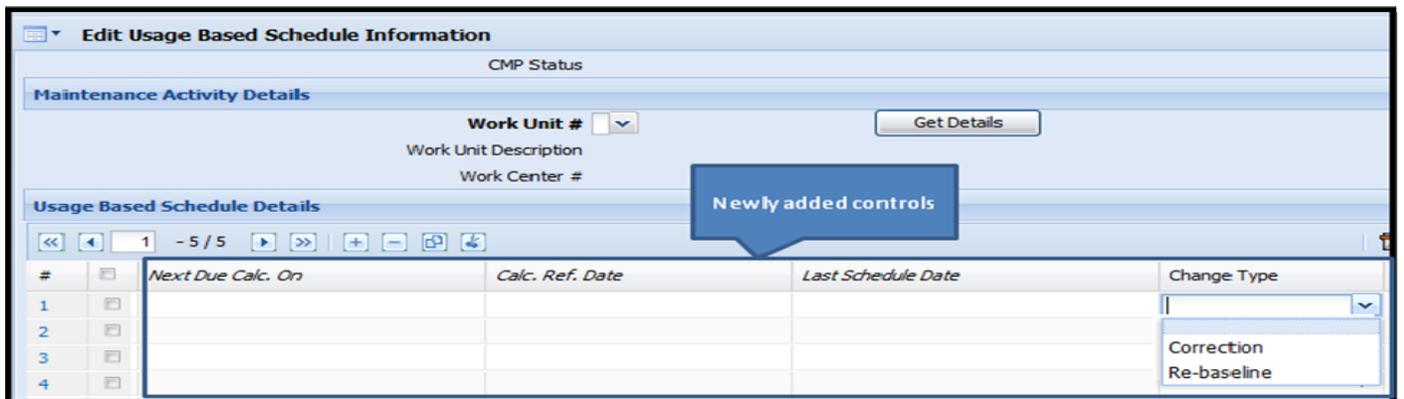
Total : 1 - 10 of 1

View Program Modification Log

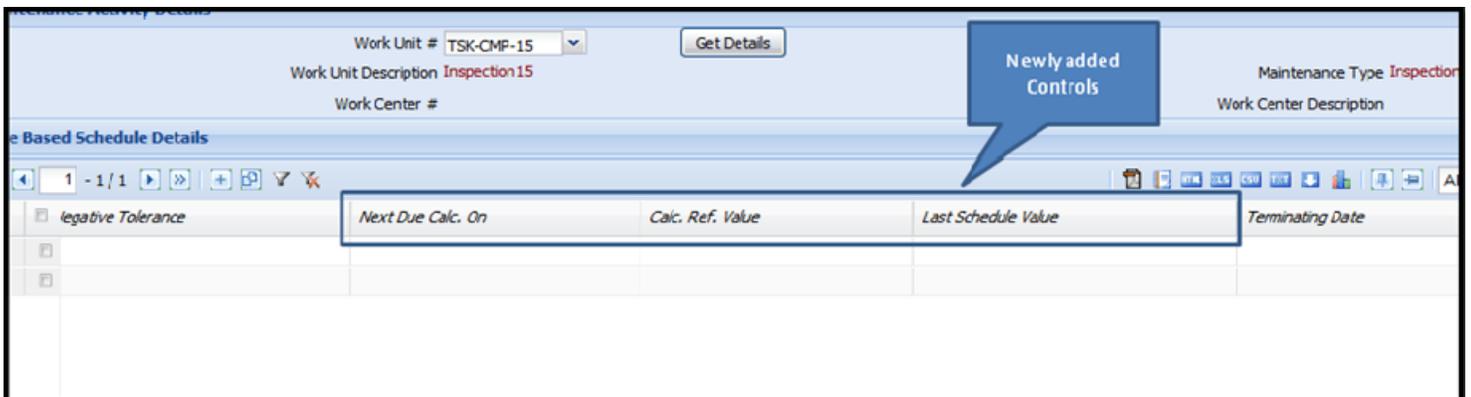
3. Edit Date Base Schedule (Component Maintenance Program)



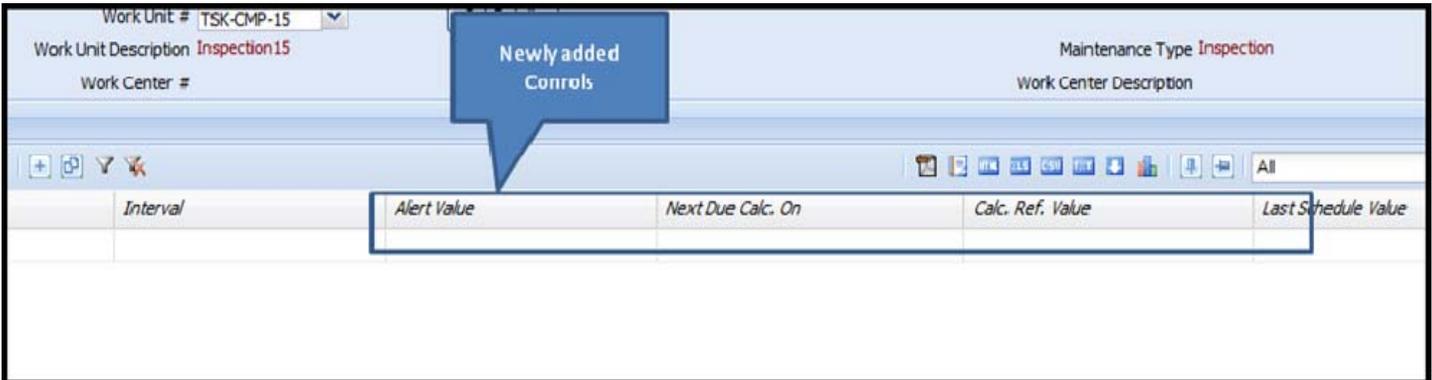
4. Edit Usage Base Schedule (Component Maintenance Program)



5. View Date Base Schedule (Component Maintenance Program)



6. View Usage Base Schedule (Component Maintenance Program)



7. Initialize Maintenance Program & Update Compliance (Aircraft & Component Maintenance Program)



Points to be noted:-

1. Impact on Schedule Modification:

When user modifies the Next schedule Date / Value (or) Last Performed Date / Value, system will mandate user to select the Change Type (Correction / Baselined).

- If the user selects the Change type as “**Correction**” by modifying the Next Schedule Date / Value, system will save the user entered Next Schedule Date / Value. Further when user modifies the schedule information (Threshold / Interval) for the task system will overwrite the user entered Next Schedule date / Value.
- If user selects the Change type as “**Re-baseline**” by modifying the Next Schedule Date/Value, system will save the user entered Next Schedule Date / Value. Further when user modifies the schedule information (Threshold / Interval) for the task, system will not overwrite the user entered Next Schedule date / Value.

- Even if the Next Schedule Date/Value for the Task is “**Re-baseline**”, the following transaction will overwrite Baselined Next Schedule Date / Value.
 - Compliance of task.
 - Compliance Correction & Deletion
 - Position Base schedule inheritance.
 - Releasing of Eng. Doc.
 - Attachment of component to an Aircraft for the task with Reset on Attachment is set as First Attachment / Every Attachment.

During Compliance of Task for which update basis is ‘**Time Window**’, and if,

- The compliance date/value falls within the tolerance value (date range), then system will compute NSD/NSV as Previous schedule Date/Value + Interval. Further when user modifies the interval for the task, the system will re-compute NSD/NSV as Previous schedule Date/Value + Modified Interval.
- The compliance date/value falls within the tolerance value (date range), then system will compute NSD/NSV as Previous schedule Date/Value + Interval. Further when user modifies the Last Performed Date / Value by removing the NSD/NSV and selecting the change type as “**Correction**”, the system will compute NSD/NSV as ‘User entered LPD /LPV + interval’.
- The compliance date/value falls within the tolerance value (date range), then system will compute NSD/NSV as Previous schedule Date/Value + Interval. Further when user modifies the Last Performed Date / Value by removing the NSD/NSV and selecting the change type as “**Re-baseline**”, the system will compute NSD/NSV as ‘User entered LPD /LPV + interval’.

2. Impact on Backdate Journey log:-

During Compliance of Task for which update basis is ‘**Time Window**’, and if,

- The compliance value falls within the tolerance value (value range), then system will compute NSV as Previous schedule Value + Interval. Further when user records the backdated journey log for an Aircraft which changes the compliance value falls outside the tolerance range, then system will compute NSV as LPV + interval.
- The compliance value falls within the tolerance value (value range), then system will compute NSV as Previous schedule Value + Interval. Further when user modifies the LPV/NSV with change type as “**Correction**”, system will save the user enter LPV & NSV. Once again if user records backdated journey log / Update the Parameter for an Aircraft, then system will overwrite the user entered LPV & re-compute NSV as LPV + interval.

Enhancement Notification

- The compliance value falls within the tolerance value (value range) then system will compute NSV as Previous schedule Value + Interval. Further when user modifies the LPV/NSV with change type as '**Re-baseline**', system will save the user entered value and once again if user records backdated journey log for an Aircraft, then system will not overwrite the user entered LPV & NSV.

Exhibit 2:

Following are the scenarios of Next Schedule Date / Value Computation for the tasks and its Computation reference basis.

Scenario	Next Due Calc. On	Calc. Ref. Value / Date	Last Schedule Date / Value
On adding task, if no schedules are available (Aircraft task)	Blank	Blank	Blank
If 'Date based schedules' gets copied from 'Maintenance Task' component or 'Model Program', and NSD is computed based on 'Reference Basis' - Operational Date or Induction Date (Aircraft task)	Induction / Operation Date	Corresponding Date	Not Applicable
On addition of component task	Mfr. Date	Corresponding Date	Not Applicable
NSD computation based on 'Threshold / Interval Value' entered	Initial Interval	Threshold / Interval Value	Not Applicable
During compliance, if NSD / NSV computation based on 'Update Basis' - Time Window or Schedule	Time Window / Schedule	Last Due Value / Date	Last Due Value / Date
During compliance, if NSD / NSV computation based on 'Update Basis' - Actual Completion	Actual Completion	Last Performed Value	Last Due Value
On addition of a task with 'Initiated / Reset by' set as "Related Task Compliance"	Not Applicable	Not Applicable	Not Applicable
On compliance of a parent task 'Initiated' the child task then for Parent task	Not Applicable	Not Applicable	Last Due Value / Date
On compliance of a parent task 'Initiated' the child task and if the child task is not Previously complied	RTC : Initial Interval	Last Performed Date / Value of parent task	Not Applicable

On compliance of a parent task 'Initiated' the child task if the child task is Previously complied	RTC	Last Performed Date / Value of parent task	Not Applicable
Complied the task after the Short Term escalation and NSD / NSV computation based 'Schedule Reset Basis' set as "Last Schedule"	STE : Last Schedule	Last Due Value / Date	Last Due Value / Date
Complied the task after the Short Term escalation and NSD / NSV computation based 'Schedule Reset Basis' set as "Actual Completion"	STE : Actual Completion	Last Performed Value / Date	Last Due Value / Date
On modifying interval for task having Position Based Schedule (PBS) and the task is not complied previously	PBS : Mfr. Date / PBS : Initial Interval	Corresponding Date / Threshold or Interval	Not Applicable
On modifying interval for a complied task having position based schedule (complied with in the permitted limit of time window)	PBS : Time Window	Last Due Date / Value	Last Due Date / Value
On modifying interval for a complied task having position based schedule (complied with in the limit on last compliance or 'Update Basis' is set as "Actual Completion")	PBS : Actual Completion	Last Performed Date / Value	Last Due Date / Value
On compliance of parent task triggering its 'Initiate Schedule' "Related Task Compliance" task having position base schedule	PBS : RTC	Last Performed Value of parent task	Not Applicable
Complied the task after the Short Term escalation and NSD/V computation based 'Schedule Reset Basis' set as "Last Schedule"	PBS-STE : Last Schedule	Last Due Date / Value	Last Due Date / Value
Complied the task after the Short Term escalation and NSD/V computation based 'Schedule Reset Basis' set as "Actual Completion"	PBS-STE : Actual Completion	Last Performed Date / Value	Last Due Date / Value

Exhibit 3:

The system updates the NSD / NSV computation basis controls 'Next Due Calc. On', 'Calc. Ref. Date' and 'Last Schedule Date / Value' for aircraft / component tasks, based on the 'Change Type' selected and the value entered by the user:

'Change Type' selected	Value entered by user	Next Due Calc. On	Calc. Ref. Date / Value	Last Schedule Date / Value
Correction	If the user manually enters NSV / NSD	Manual : Correction	Value / Date & Time entered by user	Not Applicable
Correction	If the user modifies the interval / Threshold of a task added with manually entered NSV (Aircraft task)	Initial Interval	Threshold / Interval	Not Applicable
Correction	If the user modifies the interval / Threshold of a task added with manually entered NSD	Induction Date / Operational Date (For Aircraft task)	Corresponding Date & Time	Not Applicable
Correction	If the user manually enters LPD / LPV	Manual : Correction	Value / Date and Time entered by user	Not Applicable
Correction	If the user modifies the interval / Threshold of a task added with manually entered LPV (Aircraft task)	Initial Interval	Threshold / Interval	Not Applicable
Correction	If the user modifies the interval / Threshold of a task added and manually enters LPD	Induction Date / Operational Date (For Aircraft task) Mfr. Date (For Component Task)	Corresponding Date	Not Applicable
Correction	NSD / NSV, LPD, LPV	Manual : Correction	Value / Date and Time entered by user	Not Applicable
Correction	If the user modifies the interval / Threshold of a task added with manually entered NSV, LPV (Aircraft	Initial Interval	Threshold / Interval	Not Applicable

	task)			
Correction	If the user modifies the interval / Threshold of a task added with manually entered NSD, LPD	Induction Date / Operational Date (For Aircraft task) Mfr. Date (For Component Task)	Corresponding Date	Not Applicable
Re-baseline	If the user modifies the interval / Threshold of a task added with manually entered NSD / NSV	Manual : Re-baseline	Not Applicable	Not Applicable
Re-baseline	If the user modifies the interval / Threshold of a task added with manually entered LPD / LPV	Manual : Re-baseline	Value / Date and Time entered by user	Not Applicable
Re-baseline	NSD / NSV, LPD / LPV	Manual : Re-baseline	Value / Date and Time entered by user	Not Applicable
Re-baseline	If the user modifies the interval / Threshold of a task added with manually entered NSV, LPV	Manual : Re-baseline	Value / Date and Time entered by user	Not Applicable
Correction	If the user modifies NSD / NSV manually	Manual : Correction	Value / Date & Time entered by user	Last Due Value Date and Time
Correction	If the user modifies the interval of complied task having manually entered NSD / NSV	Time Window / Actual Completion	Last Due Value / Actual Compliance	Last Due Value or Date and Time
Correction	If the user modifies LSD / LSV manually	Manual : Correction	Date & Time / Value entered by user	Last Due Value or Date and Time
Correction	If user modifies the interval for a complied task having manually entered LSD / LSV	Time Window / Actual Completion	Last Due Date & Time / Value and Actual Compliance	Last Due Value or Date and Time
Correction	If the user modifies LSD / LSV and NSD / NSV manually	Manual : Correction	Value / Date and Time entered by user	Last Due Value or Date and Time
Correction	If user modifies the interval for a complied task having manually entered LPD / LPV and NSD / NSV	Time Window / Actual Completion	Last Due Value / Actual Compliance	Last Due Value or Date and Time

Enhancement Notification

Re-baseline	If the user modifies NSD / NSV manually	Manual : Re-baseline	Value / Date and Time entered by user	Last Due Value or Date and Time
Re-baseline	If the user modifies the interval of complied task having manually entered NSD / NSV	Manual : Re-baseline	Value / Date and Time entered by user	Last Due Value or Date and Time
Re-baseline	If the user modifies LSD / LSV manually	Manual : Re-baseline	Date / Value entered by user	Last Due Value or Date and Time
Re-baseline	If user modifies the interval for a complied task having manually entered LSD / LSV	Manual : Re-baseline	Date / Value entered by user	Last Due Value or Date and Time
Re-baseline	If the user modifies LSD / LSV and NSD / NSV manually	Manual : Re-baseline	Value / Date and Time entered by user	Last Due Value or Date and Time
Re-baseline	If user modifies the interval for a complied task having manually entered LSD / LSV and NSD / NSV	Manual : Re-baseline	Not Applicable	Last Due Value or Date and Time

Exhibit 4:

Following are the scenarios of Next Schedule Date / Value Computation for the tasks and its Computation reference basis on Activation of Position Base Schedule / Inactivation Position Based Schedule/Attachment of component to an Aircraft.

Scenario	Next Due Calc. On	Calc. Ref. Date / Value	Last Schedule Date / Value
Before compliance if user manually corrected the NSD/NSV for the task for which PBS exists.	PBS-Manual : Correction	Value / Date and Time entered by user	Not Applicable
Attachment of component to the Position for which PBS exists/Activation of PBS	PBS-Mfr. Date / PBS - Initial Interval	Corresponding Date & Time / Threshold / interval entered	Not Applicable
Before compliance if user Manually entered the LPD/LPV for the task by removing the NSD/NSV for which PBS exists.	PBS-Manual : Correction	LPD/LPV entered by user	Not Applicable

Enhancement Notification

Before compliance if user Manually baseline the NSD/NSV for the task for which PBS exists	PBS-Manual : Re-baseline	Value / Date and Time entered by user	Not Applicable
Before compliance if user Manually baseline the LPD/LPV for the task by removing NSD/NSV for which PBS exists	PBS-Manual : Re-baseline	LPD/LPV entered by user	Not Applicable
After compliance if user Manually corrected the NSD/NSV for the task for which PBS exists.	PBS-Manual : Correction	Value / Date and Time entered by user	Last Due Date & Time / Value
Complied the with Sch. Impact on Position Change as 'Reset Template Program', system will copy the schedule from Part Program	Time Window or Actual Completion	Last Due Value Or Actual Compliance	Last Due Date & Time / Value
After compliance if user Manually entered the LPD/LPV for the task by removing the NSD/NSV for which PBS exists.	PBS - Manual : Correction	Value entered by user	Last Due Date & Time / Value
Complied the with Sch. Impact on Position Change as 'Retain PBS', system will copy the Position base schedules	PBS - Time Window or Actual Completion	Last Due date and time / Value Or Actual Compliance	Last Due Date & Time / Value
After Compliance, user inactivated the PBS with Sch. Impact on Position Change as 'Reset Template Program'	Time Window or Actual Completion	Last Due date and time / Value Or Actual Compliance	Last Due Date & Time / Value
After Compliance, user inactivated the PBS with Sch. Impact on Position Change as 'Retain PBS'	PBS-Time Window or Actual Completion	Last Due date and time / Value Or Actual Compliance	Last Due Date & Time / Value

Exhibit 5:

For tasks with 'Reset Attachment' set as "First Attachment/Every Attachment"

'Change Type' selected	Value entered by user	Compliance Status	Component Attached to Aircraft	Next Due Calc. On	Calc. Ref. Date / Value	Last Schedule Date / Value
Correction	On modifying NSD	Pre-Compliance	Yes	Manual : Correction	Value / Date and Time entered by user	Not Applicable
Correction	On modifying interval of the task having manually entered NSD	Pre-Compliance	Yes	Installation Date/Every Attachment	Installation Date	Not Applicable
Correction	On modifying LPD	Pre-Compliance	Yes	Manual : Correction	Date & Time entered by user	Not Applicable
Correction	On modifying interval of the task having manually entered LPD	Pre-Compliance	Yes	Installation Date/Every Attachment	Installation Date	Not Applicable
Correction	On modifying LPD, NSD	Pre-Compliance	Yes	Manual : Correction	Value / Date and Time entered by user	Not Applicable
Correction	On modifying interval of the task having manually entered LPD, NSD	Pre-Compliance	Yes	Installation Date/Every Attachment	Installation Date	Not Applicable
Re-baseline	On modifying NSD	Pre-Compliance	Yes	Manual : Re-baseline	Value / Date and Time entered by user	Not Applicable
Re-baseline	On modifying interval of the task having manually entered NSD	Pre-Compliance	Yes	Manual : Re-baseline	Value / Date and Time entered by user	Not Applicable
Re-baseline	On modifying LPD	Pre-Compliance	Yes	Manual : Re-baseline	Date & Time entered by user	Not Applicable

Enhancement Notification

Re-baseline	On modifying interval of the task having manually entered LPD	Pre-Compliance	Yes	Manual : Re-baseline	Date & Time entered by user	Not Applicable
Re-baseline	On modifying LPD, NSD	Pre-Compliance	Yes	Manual : Re-baseline	Value / Date & Time entered by user	Not Applicable
Re-baseline	On modifying interval of the task having manually entered LPD, NSD	Pre-Compliance	Yes	Manual : Re-baseline	Value / Date and Time entered by user	Not Applicable
Correction	If the user enters NSD for a complied task	Post Compliance	No	Manual : Correction	Value / Date and Time entered by user	Last Due Date and Time
Correction	On modifying interval of the task having manually entered NSD	Post Compliance	No	Actual Completion	Last Performed Date and Time	Last Due Date and Time
Correction	On modifying NSD for a complied task	Post Compliance	Yes	Manual : Correction	Value / Date and Time entered by user	Last Due Date and Time
Correction	On modifying interval of the task having manually entered NSD	Post Compliance	Yes	Time Window or Actual Completion	Due Date and Time or Actual compliance Date and Time	Last Due Date and Time
Correction	If the user enters LPD for a complied task	Post Compliance	No	Manual : Correction	User entered date and time	Last Due Date and Time

Enhancement Notification

Correction	On modifying interval of the task having manually entered Last Schedule Date or on modifying interval of the task having manually entered LPD / NSD	Post Compliance	No	Actual Completion	Last Performed Date and Time	Last Due Date and Time
Correction	On modifying LPD for a complied task	Post Compliance	Yes	Manual : Correction	User entered Date and Time	Last Due Date and Time
Correction	On modifying interval of the task having manually entered LPD or manually entered LPD / NSD	Post Compliance	Yes	Time Window or Actual Completion	Due Date and Time or Actual compliance Date and Time	Last Due Date and Time
Correction	If the user enters LPD / NSD	Post Compliance	No	Manual : Correction	Value / Date and Time entered by user	Last Due Date and Time
Correction	On modifying LPD / NSD	Post Compliance	Yes	Manual : Correction	Value / Date & Time entered by user	Last Due Date and Time
Re-baseline	If the user enters NSD for a complied task / Modifies the interval with entered NSD / Modifies NSD / Modifies interval with modified NSD	Post Compliance	No / Yes	Manual : Re-baseline	Value / Date and Time entered by user	Last Due Date and Time
Re-baseline	If the user enters LPD for a complied task / Modifies the interval with entered LPD / Modifies LPD / Modifies interval with modified LPD	Post Compliance	No / Yes	Manual : Re-baseline	User entered Date and Time	Last Due Date and Time
Re-baseline	If the user enters LPD & NSD for a complied	Post Compliance	No / Yes	Manual : Re-baseline	Value / Date and Time	Last Due Date and Time

	task / Modifies the interval with entered LPD & NSD / Modifies LPD & NSD / Modifies interval with modified LPD & NSD				entered by user	
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Exhibit 6:

On releasing the engineering document, the system updates the NSD / NSV and the NSD / NSV computation basis controls 'Next Due Calc. On', 'Calc. Ref. Date' and 'Last Schedule Date / Value' in various scenarios, as explained in the below table:

Scenario	NSD / NSV	Next Due Calc. On	Calc. Ref. Value / Date	Last Schedule Date / Value
If the task with Tracking type as 'Schedule tracked' and 'Applicable' set as "Yes" a) Threshold interval /repeat interval is defined in 'Eng. Doc schedule information	NSD = Eng. Doc Effective from date + Threshold interval / Repeat interval NSV = Present value on Eng. Doc Effective from date + Threshold interval / Repeat interval	Eng. Doc. Effec. from Date (Date & Usage Based Schedule)	Eng. Doc. Effec. from Date (Date Based) Parameter value on Eng Doc Effective from date	Not Applicable
b) If threshold date / value is defined in the Eng. Doc schedule information page	NSD = Threshold date NSV = Threshold value	Eng. Doc : Initial Interval (Date & Usage Based Schedule)	Threshold interval / Threshold date / Repeat interval (date Based) Threshold Value (Usage Based)	Not Applicable
If user manually initialize the task in "Initialize Eng. Doc" page		Eng. Doc. - Manual : Correction	User entered value	Not Applicable
If the task with initiate /reset by is 'RTC' and if the parent task (T1) has initiate schedule relationship with related task (T2)	Blank	Not Applicable	Not Applicable	Not Applicable
If the task with 'Initiate / Reset by' is set as 'RTC' and if the	User entered value	Eng. Doc. - Manual :	User entered value	Not Applicable

Enhancement Notification

Parent task(T1) has initiate schedule relationship with related task (T2) and if user manually initialize the task(s) in 'Initialize Eng. Doc.' Page		Correction		
If the Eng. Doc effective from date is future date	Blank	Not Applicable	Not Applicable	Not Applicable
If the Eng. Doc effective from date is future date and if the user manually initializes the task in "Engineering Document" business component	Blank	Eng. Doc - Manual : Re-baseline	User entered value	Not Applicable
When revising the Eng. Doc, if the 'Action on revision' is selected as 'Re-comply' and if the task is complied in previous revision	NSD = Effective from date + Threshold interval NSV = Parameter value on Eng.doc Effective from date + Threshold / Interval	Eng. Doc. Effec. from Date (Date & Usage Based Schedule)	Eng. Doc. Effec. from Date (Date Based) Parameter value on Eng Doc Effective from date (Usage Based)	Not Applicable
When revising the Eng. Doc, if 'Action on revision' is set as 'Re-comply'. Task with initiate /reset by as 'RTC' and if the parent task (T1) has initiate schedule relationship with related task (T2). User manually initializes the parent task in 'Initialize Eng. Doc.' page in the previous revision	NSD = User entered value NSV = Parameter value on Eng.doc Effective from date + Threshold / Interval	Manual : Correction	User entered value	Not Applicable
When revising the Eng. Doc, if the 'Action on revision' is selected as "Carry Over Compliance" and if the task is complied in previous revision	The system retains the schedule in the program	Time window / Actual completion / Schedule	Last Performed Date or Value / Last Schedule Date or value	Last schedule value
If user revises the EO and selects the 'Action on Revision' as 'Revoke', on	The task in the program is inactivated	Blank	Blank	Blank

release of Eng. Doc.				
If user revises the EO and selects the 'Action on Revision' as 'Terminate', on release Eng. Doc.	The task in the program is inactivated	Blank	Blank	Blank
If the 'Mandate Revision on Modification of Effectivity?' is set as 'Yes' or 'No' and the 'Applicable' is set as 'No/hold/PCW', on save or release	The task in the program is inactivated	Blank	Blank	Blank

WHAT'S NEW IN AIRCRAFT MAINTENANCE PLANNING?

A. Provision to print maintenance due report for 121 & 135 operators without Rem. Units & Due Date

Reference: AHBE-12226

Background

Currently in Ramco Aviation solution, in **Aircraft Maintenance Due Report**, the system will display the due task information, Rem. Units and Due date.

In some business scenario, the Rem. Units and Due date needs to be displayed as blank in **Aircraft Maintenance Due Report**.

Change Details

With this enhancement, new check box (Rem. Units & Due Date) has been added in **Aircraft Maintenance Due Report** entry page.

By default, 'Rem. Units & Due Date' check box will be checked. So, if the user launches the report, the system will display the corresponding values in the following columns:

- Rem. Units (Maintenance Due Report – 135 operators)
- Forecasted Due at Date (Maintenance Due Report – 135 operators)
- Rem. FH, FC, Days (Maintenance Due Report – 121 operators)
- Due at Date (Maintenance Due Report – 121 operators)

If Rem. Units and Due Date check box is **unchecked**, the system will display the value as blank in the following columns.

- Rem. Units (Maintenance Due Report – 135 operators)
- Forecasted Due at Date (Maintenance Due Report – 135 operators)
- Rem. FH, FC, Days (Maintenance Due Report – 121 operators)
- Due at Date (Maintenance Due Report – 121 operators)



Note: In addition to this feature, the header information will be displayed in all the pages of 135 Operators Aircraft Maintenance Due Report.

Exhibit 1: Aircraft Maintenance Due Report - Entry page

Aircraft Maintenance Due report

Date Format yyyy-mm-dd

Search Criteria

Search By: Aircraft Reg # [] Maintenance Item [] From / To date: 2014-02-27 [] 2014-02-28 []

Task Attributes [] Deferral Type [] Work Center # []

Planning Status [] Part # [] Serial # []

Component # [] Remaining Value <= [] Days [] Time Display Options: Decimal Format []

Sort By: Planned Date []

Additional Search Criteria

Maintenance Event As Required Over Due Rem. Units & Due Date

Generate Aircraft Due Report for 121 Operators [Generate Aircraft Due Report for 135 Operators](#)

Rename as "Display Option"

New display option based on which Rem. Units & Due Date will be displayed in 121 & 135 reports

Exhibit 2: Maintenance Due Report – 135 operators

CB Airways		Maintenance Due Report				Jet Airways (India) Limited Siroya Centre, Sahar Airport Road, Andheri (East), Mumbai, Maharashtra, India						
Aircraft #	Model #	Config Class	Report Duration	Aircraft FH	Aircraft FC	Engine Details			APU Details			
1001	A310	CC	From 2014-02-25 0 / To 2014-02-26 2	518.83	215							
Position Code	Task # Task Description	AME #	Part # ~ Part Desc. ~ Serial #	NHA Details Part#~Part Desc.~Pos. Code~Serial#	Task Type	Interval	Last Performed	Triggering Parameter	Rem. Units	Due Value	Forecasted / Due at Date	
	EO-000049-2014 AHBE-11777				OTH	Threshold 5 Days		Cal	0 Days	2014-02-25 00:0	2014-02-25 00:0	
	EO-000047-2014 AUAM-1760				OTH	Threshold 5 Days		Cal	0 Days	2014-02-25 00:0	2014-02-25 00:0	
	VP-000281-2013/1	VP-000284-							91.17 FH 0.00 FC	* 610.00 FH 215.00 FC	2014-02-25 00:3	

Header info will be available on all pages

Values will be not be displayed if Rem. Units & Due Date box is unchecked

Exhibit 3: Maintenance Due Report – 121 operators

		Aircraft Maintenance Due Report						Apple Inc 1 Infinite Loop., Cupertino, California.						
Aircraft Reg #	Aircraft Model #	MFR Serial #	Aircraft FH	Aircraft FC	Average FH	Average FC	Due Days	Header info will be available on all pages ** Existing behaviour						
vi-rmc	A310	56		500		0	-731.							
Task #	Task Description	Part Information	Interval			Remaining			Due at		Planning Status	Deferral Item #	Parent Item #	
(Inst)-(Type)-(Driver Task #)		Part #-Part description ~Serial	FH	FC	Days	FH	FC	Days	FH	FC	Date	Package #-Planned Date-Work Center		
test4(1)-(-)-test4	test										2014/02/26	VP-000005-2012 ~ ~ ATL-104-05		
2-7R4-0000-MPD-00000060(1)-(MPD)-2-7R4-0000-MPD-00000060	Inspection		100.00	1		34.19	1		650.00	501	2014/02/27	VP-000066-2013 ~ 3:2013/05/04 E:2013/05/04 ~		
End of Report														
Values will be not be displayed if Rem. Units & Due Date box is unchecked Please note that spec does not state 'Due at Date' value should be hidden														

B. Provision to display NHA Part-Serial Information and APU details information in Aircraft Maintenance Due Report

Reference: AHBE-10043

Background

Currently in Ramco Aviation solution, in **Aircraft Maintenance Due Report**, user can view the Aircraft and component due tasks. For a component due task, system will display the Part & Serial information in Aircraft Maintenance Due Report.

With this enhancement, Ramco facilitates the user to view the following details:

- a. NHA details for the sub-assembly component due tasks in **Aircraft Maintenance Due Report**.
- b. Details on APUs attached onto the aircraft for which the Maintenance Due Report is generated.

Change Details

Impacted controls references:-

The following are the controls added in the **Aircraft Maintenance Due Report**.

The Impacted controls are highlighted. Refer **Exhibit 1**.

- ▶ APU Details
- ▶ NHA Details

Exhibit 1:

		Maintenance Due Report				Aveos Fleet Performance Inc. 2311 Alfred-Nobel Boulevard., St Laurent, QC, Canada					
Aircraft #	Model #	Config Class	Report Duration	Aircraft FH	Aircraft FC	Engine Details			APU Details		
VT- EJJ	A330	AI-707		100.00	100				Apu-Position Code:POS-1 ~ PN: 0-100-1 ~ SN: RPT-2 ~ 100.00FC ~ 100.00FH		
Position Code	Task # Task Description	AME #	Part # ~ Part Desc. ~ Serial #	NHA Details Part#~Part Desc.~Pos. Code~Serial#	Task Type	Interval	Last Performed	Triggering Parameter	Rem. Units	Due Value	Forecasted / Due at Date
POS-1	1-50C-0000-CMM-00001350 PME-1 for Part P1		0-100-1~3".DIA.0-100PST GAUGE~RPT-2	0-0440-4-0016:36361~LARGE OVEN RACK~POS-1~RPT-1	INS	Threshold 100 FH 10 FH		FH	0.00 FH	100.00 FH	
POS2	1-50C-0000-CMM-00001350 PME-1 for Part P1		0-0440-4-0016:36361~LARGE OVEN RACK~RPT-1		INS	Threshold 100 FH 10 FH		FH	0.00 FH	100.00 FH	

With the introduction of this new feature,

1. If the APU component is attached in an Aircraft, the system will display the following information in APU Details:
 - APU Position Code
 - APU Part #:
 - APU Serial #
 - All Consumption Parameters along with its present value for component
2. If the task is due on sub-assembly components, the system will display the following information in NHA Details:
 - NHA-Part #
 - NHA-Part Description
 - NHA- Pos. Code
 - NHA- Serial #



Note: If the component is directly attached to an Aircraft, the system will display the NHA details as blank for the due task.



For an Aircraft due task, system will display the NHA details as blank.

C. Facility to retrieve As-Required tasks defined for attached component from component program

Reference: AHBE-6166

Background

Ramco displays 'As Required' tasks for aircraft in Aircraft Maintenance Planning. Enhancement is to display 'As Required' tasks for attached components.

Change Details

In the **Aircraft Maintenance Planning** business component, on search by enabling 'As Required' option, the system will retrieve all active 'As Required' tasks which are in Component Maintenance Programs of the component attached for the retrieved aircraft. 'As Required' component tasks are retrieved for components attached at all levels. Planning Status for 'As Required' Component tasks will not be displayed.

D. Enhancement in ePubs

Reference: AHBE-6166

Background

Currently in Ramco Aviation Solution, the below problem statements were identified in ePubs.

1. Pdf generation of voluminous packages takes longer time, when opted for direct printing from Maintenance Planning / Execution screens. Hence provision to queue the documents in Offline mode for the selected package type to print the documents later directly from ePubs is required. This also means the ability to distinguish package types, where Offline Pdf generation is enabled.
2. From Maintenance Planning / Execution screens if selective printing is opted, system mandates credentials for ePubs login. Hence single sign on feature is required.

Change Details

- A. A process parameter 'Direct Printing' is added for the 'Package type' with value "Yes" or "No". For Heavy packages, user shall set value as "No" for "Direct Printing" enabling the system to queue the documents for processing the Pdf generation offline.

The Package Print Status column added in Planning board intimates readiness and visibility of the package queued for printing (i.e.) for which offline Pdf generation is opted. Package Print status will be updated with status corresponding to print status in ePubs.

The 'Package Print status' column shall be updated as 'Print Not Initiated' for which the print is not invoked previously

User shall visit ePubs screen to print the packages available in queue.

The various package print status available are as shown below:

Package Print status	Package status Description
Pkg. Gen. Failed	Package generation failed
Pkg. Gen. I/P	Package generation in progress
Pkg. Gen. Comp.	Package generation completed
Pkg. Copy to Folder Failed	Package copy to folder failed
Pkg. Copy to Folder I/P	Package copy to folder in progress

Pkg. Copy to Folder Comp	Package copy to folder completed
Pkg. Printing Failed	Package printing failed
Pkg. Printing Initiated	Package printing initiated
Pkg. Printing I/P	Package printing in progress
Pkg. Printing Comp.	Package printing completed
Error	Package printing error
Print not Initiated	Package printing not initiated

- B. Currently user provides credentials to login to ePubs at every instance when selective package printing is opted.

With the introduction of Single Sign-on feature, system will use the username and password present in the **Technical Document Interface** business component in Maintenance, to automatically login in to the ePubs system.

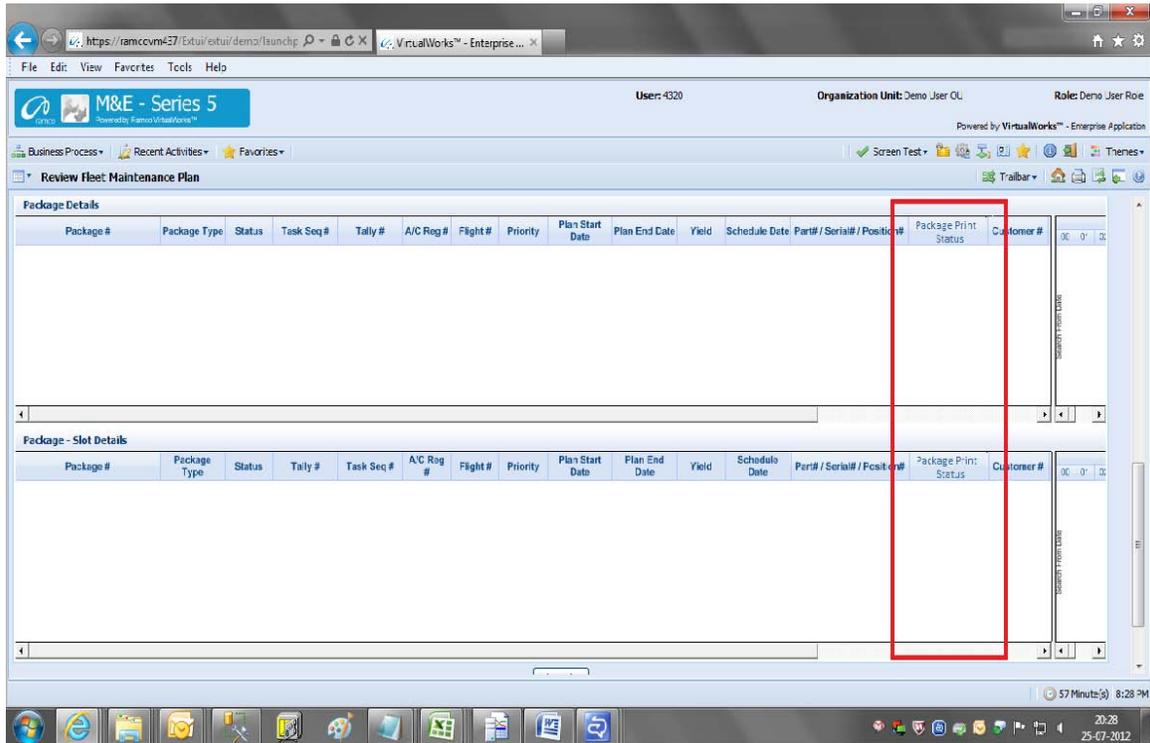
The Single Sign-on feature will enable user to launch ePubs without the need to key in the username and password and will not request for username and password every time the user login in to ePubs system.

Enhancement Notification

Impacted Screen

Plan Aircraft Maintenance

Exhibit 1: ePubs Package Print feature



E. Daily Planning Report

Reference: AHBE-12406

Background

In order to effectively use a Work center's Man power resource, a Shift-In Charge needs to know the actual work center load for a given day.

Ramco's M&E / MRO solution comes bundled with a Daily Planning Report which represents work center wise Available Man Hours versus Planned Man Hours (load).

Change Details

Daily planning report displays the following information (Refer Exhibit 1).

1. Total Available Man Hours on the warehouse and the total Planned Man Hours on the work center on a daily basis. Balance Man Hours available for Planning for a particular day is available.
2. Priority Wise split up of Planned Man Hours is displayed to user.
3. Task and Discrepancies planned on the work center and the priority of the task is displayed in the report.

Daily Planning report can be launched by providing the following information (Refer Exhibit 2).

1. Aircraft Model # / Customer # / Field Base / Planner Group / Sub Fleet – displays the details of Aircraft Reg #s belonging to the selected criteria.
2. Date Range for which the Planning Information to be displayed in the report.
3. Workcenter for which the work center load needs to be analysed.
4. Display option as Summary if only the Workcenter Load information needs to be displayed in the report.
5. Display option as Detail if Workcenter Load information and planed Task and Discrepancy information needs to be displayed in the report.

Exhibit 1: Daily Planning Report

		Daily Planning Report			Jet Airways (India) Limited 64, Sardar Patel Road, Taramani, Chennai Tamil Nadu India			
PLANNING SUMMARY								
Work Center #	Start Date	Available Man Hours	Total Planned Hours	Balance Hours	Planned Hours (%)			
SM-HANGER	15-04-2014 00:00:00	256.00	5.00	199.80	1.95			
Priority Wise Planned Manhours N/A-5.00				Priority Wise Planned Manhours (%) N/A-100.00				
Package #	HP000462-2013	Aircraft Reg #	VT-RMC	Operated For	Package Hours			5.00
Parent Item #	Task #	Task Description	Task / Disc. Type	Priority	Est. Man Hrs.	Remaining Hrs / CYC / DAYS		Triggering Parameter
	A31-7-MP-00000026	Inspection	MPD		1.00	0.0 / 0.0 / -57		
	Packagebox	Packagebox	MEL		1.00	/ /		
	HP000462-2013	CorrectiveChaos	MEL		1.00	5.0 / /		
	FlightPsys	FlightPsys	MEL		1.00	/ 5.0 /		
	Datebait	Datebait	MEL		1.00	/ / 4		

Exhibit 2:

Daily Planning Report Trailbar

Date Format

Report Criteria

Planning Element: <input type="text"/>	Planning Element Info: <input type="text"/>
Maintenance Item: <input type="text"/>	Maintenance Item Info: <input type="text"/>
From Date: <input type="text"/>	To Date: <input type="text"/>
Work Center #: <input type="text"/>	Display Options: <input type="text"/>

Print Report

WHAT'S NEW IN ENGINEERING DOCUMENT?

A. New activity Manage Engineering document is added

Background

New screen is architected with critical insights to usability. It addresses major challenges like streamlining process intensive activities, optimizing usage time and ultimately improving customer satisfaction.

Change Details:

With the introduction of new screen, user can Create / Edit / Revise / View engineering document in a single screen. Solution is built with intelligence to understand user need and behave accordingly. From processing of Process Change Request to release an engineering document with existing screens, user needs to traverse around 10 screens which can be achieved now in a single screen.

Note:

- a) **Manage Engineering Document** activity will replace following activities: Create Direct Engineering Document, Create Child Engineering Document, Edit/Revise Engineering Document and View Engineering Document
- b) Data migration will be provided for the Engineering Documents created before deployment of this feature.

Manage Engineering Document

The screenshot displays the 'Manage Eng. Document' application interface. At the top, it shows the business process 'Engineering Change Management', user 'DMUSER', and organization unit 'Demo OU'. The main header includes navigation options like 'Business Process', 'Recent Activities', and 'Favorites'. The central area is titled 'Manage Eng. Document' and features a search bar with 'Glass' entered. Below the search bar is a list of engineering documents under 'Engineering Mod', including '02-428 / 0', '02-429 / 0', '02-427 / 0', and 'SB-A320-C-2013 / 0'. The right side of the interface is a detailed form for the selected document '02-429 / 0'. This form includes sections for 'MCR Details' (MCR #, Subject, Doc. Issue Date), 'Eng. Doc. #', 'ATA #', 'Eng. Doc. Subject', 'Exec. from Date', 'Execution Details' (Priority, Exe. Action, Required, Est. Man Hrs), and 'Other Details' (Background, Reason). The 'Eng. Doc. #' is '02-429', 'ATA #' is '00-00', 'Eng. Doc. Subject' is 'CONVERSION OF CONVENTIONAL COCKPIT TO GLASS COCKPIT', and 'Est. Man Hrs' is '5.00'. The 'Status' is 'Released' and 'Applicability' is 'Aircraft'.

Feature Highlight:

- a. Search on 10 predefined attributes of Engineering Document / Maintenance Change Request (MCR).
- b. Performing Create / Edit / View / Revise in a single screen.
- c. Progress bar to indicate document completion.
- d. Auto generation of Process Change Request based on MCR.
- e. Editing released Engineering document without revision, based on option control.
- f. Facility to view entire effectivity defined for an engineering order, irrespective of revision and Applicable?
- g. Ability to define action on revision at effectivity level.
- h. Capability to define a document as previously complied at effectivity level.
- i. Ability to terminate a task through engineering document.
- j. Facility to categorize task as 'Self-Compliance' or 'Related Task Compliance'.
- k. Capability to define "As-Required" and "Schedule Tacked" tasks in an engineering document.
- l. Feature to define 'Schedule Type' at task level.
- m. Provision to capture Engineering document as reference document.
- n. Iconic representations.

Search:



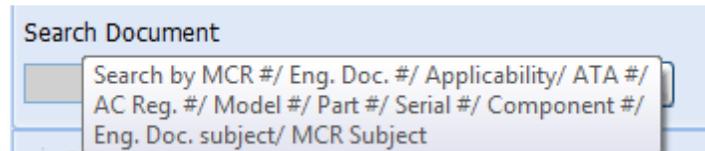
Users can search based on the following:

- a. Eng. Doc. / MCR
 - b. MCR
 - c. Eng. Doc.
- ➔ Eng. Doc. / MCR search will retrieve all MCRs eligible for processing and creation of engineering document. It also retrieves the related Engineering documents. Status of the MCR shown is "Fresh" (fetching Fresh MCR is based on set option), "Confirmed" and "Processed". Status of the Engineering Document is "Fresh" and "Released".
- For example Engineering document: SB-292-73-0144 has reference to MCR # SB 292 73 0144. Search with MCR # SB 292 73 0144 will fetch Engineering document # SB-292-73-0144 also as search result.
- ➔ MCR search will retrieve the MCR docs eligible for processing. Status of MCR is "Fresh" (fetching Fresh MCR is based on set option), "Confirmed" and "Processed".

- Eng. Doc. search will retrieve documents in “Fresh” and “Released” status. If an engineering document exists in both “Released” and “Fresh” status, only fresh revision gets displayed.

User Guidance Text

Move cursor to Search Document control to display the User Guidance Text.



Search can be done with following attributes

- a. MCR #
- b. Eng. Doc. #
- c. Applicability
- d. ATA #
- e. A/C. Reg. #
- f. Model #
- g. Part #
- h. Serial #
- i. Component #
- j. Eng. Doc. Subject
- k. MCR Subject

Search results will display all matching records for entered search data. For example if MCR #s MCR # SB 292 73 0144, MCR # SB 292 73 0150, MCR # SB 292 73 0200 exist and on search with SB 292 73 all MCRs i.e. MCR # SB 292 73 0144, SB 292 73 0150, SB 292 73 0200 will be retrieved.

Engineering Document is displayed first followed by MCR #. Engineering document is ordered by descending order of ‘Eff. From Date’ of Engineering Document. MCR document is ordered by descending order of Create Date.

In the tree, MCR and Engineering document are identified by icons. A clip board with gear indicates Engineering Document. A simple clipboard indicates MCR document.

Enhancement Notification

Engineering Mod

- SB-292-73-0144/0-7300-107/1::Non Ret.
- SB-292-73-0144/0-7300-116/0::Non Ret.
- EO-002740-2013/0::Non Ret..**
- EO-002741-2013/0::NZ3803..
- EO-002742-2013/0::Non Ret.
- EO-002743-2013/0::Non Ret.
- EO-002744-2013/0::Non Ret.
- SB-292-73-0144/0::Non Ret..**

Eng. Doc. #

MCR document

Eng. Doc. / MCR MCR Eng. Doc.

Search Document

ENG-555-63 [X] Search

Engineering Mod

Eng. Doc. # / Revision # :: Eng. Doc. Description ~ MCR # / Revision # :: MCR Description

Format of data display on search with Eng. Doc. / MCR option

Eng. Doc. / MCR MCR Eng. Doc.

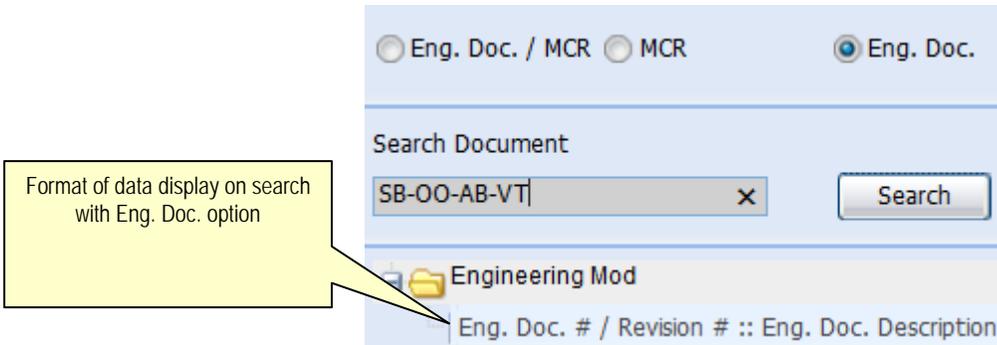
Search Document

SB-OO-AB-VT [X] Search

Engineering Mod

MCR # / Revision # :: MCR Description

Format of data display on search with MCR option



Main Header

Header shows the engineering document, its revision, aircraft and status. This section is common for all pages.

Click on icon to see full text

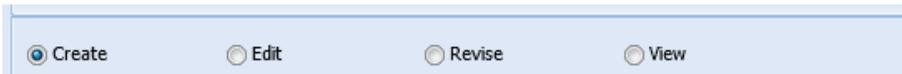
Eng. Doc. # / Rev. #	Applicability	Status
 EO-002744-2013 / 0	Aircraft	Fresh

Main Header icon familiarization

1.  → This icon indicates that the document is Pending for Authorization.
2.  → This icon indicates that the document is Authorized.

Note: If authorization is not required no icons are displayed.

Create / Edit / Revise/View



User can opt the usage mode of screen.

- ➔ Select the 'Create' radio button, to create a new document number. On Click of an MCR document from the tree, the 'Create' radio button is selected by default, to facilitate engineering document creation.
- ➔ Set as 'Edit' to edit an engineering document. User can also work on released Engineering Document without revising the same based on option setting. On click of

Enhancement Notification

an Engineering Document in “Fresh” status, corresponding data gets transferred to left plane also and ‘Edit’ radio button will be defaulted.

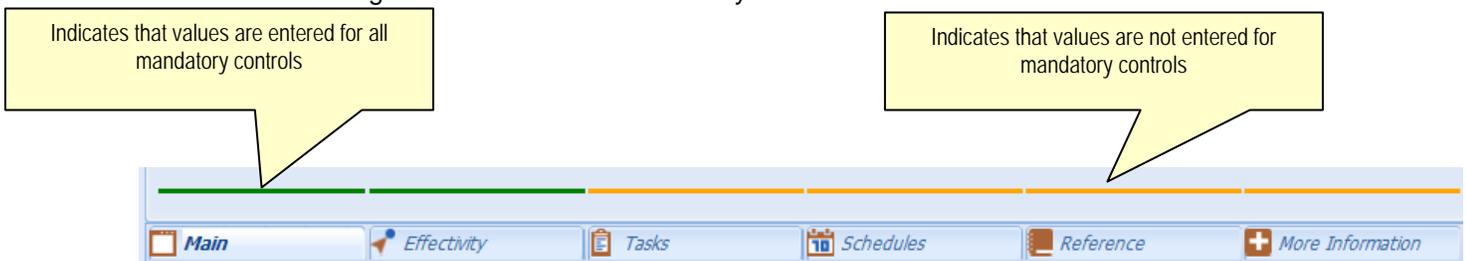
- ➔ Set as ‘Revise’ to revise an Engineering Document. Irrespective of the option set, system revises the document.
- ➔ Set as ‘View’ to review Engineering Document. Search in View mode will retrieve Engineering Documents in all status. In View mode, transactions are not allowed. On click of Engineering Documents, in “Released”, “Revised” or “Cancelled” status, from tree, radio button will be defaulted to “View”.

These radio buttons are common for all pages.

Progress Bar:

Data entry completeness is indicated by progress bar. This is indicated by two colours.

- Green colour indicates that data is entered.
- Orange colour indicates that data is yet to be entered.



Main Tab

MCR # / Rev #
SB-292-73-0144 / 0

Subject
Non Return valve on fuel pu

MCR Issue Date
01/05/2013

Document #
EO-002744-2013

ATA #
7300

Eng. Doc. Subject
Non Return valve on fuel pump pressure system. Application of modification TU 206.

Eng. Doc. Type
EO

Applicability
Aircraft

Num. Type
EO

Mod Status #

Category

Source Document Type
SB

Effec. from Date
01/05/2013

Execution Details

Priority
AOG

Exe. Action
Required

Est. Man Hrs
5.00

Eng. Doc. Class

On-wing ?
No

Est. Elapsed Time
5.00 Hours

Other Details

Background

Reason

File Name

Cancellation Comments

Revision comments

Save Cancel

Engineering document can be created with or with out Maintenance Change Request number.

Key Highlights:

- a. On creation of Engineering Document if the primary Maintenance Change Request (MCR) does not have any Process Change Request (PCR) document, system creates a PCR in Confirmed status. On this process, the system modifies the MCR status to "Processed".
- b. Following main attributes of engineering document without revision of document. **Mod Status #, Subject, Category, Eff. From Date, Source Doc Type, Priority, Eng. doc class, Exe. Action, On-Wing, Est. Man Hours, Est. Elapsed time, Background, Reason and File Name.**

Enhancement Notification

Note:

- a) Select radio buttonset as "Edit".



- b) 'Engineering Doc. Type' of Engineering Document should have "Engineering Document Revision Policy" set as 'As per Revision Rules' in "Common Master" business component.
- c) Engineering Document with 'Engineering Doc. Type' having 'Numbering Logic' set as either 'Manual' or 'Automatic' in common master are only considered.
- d) Provision to create an Engineering Document with Applicability different from the Applicability of the MCR.

Effectivity Tab:

This screen is used for defining both Aircraft and Part # - Serial effectivity.

Screen shots for aircraft applicable engineering document:

The screenshot shows the 'Effectivity Level' and 'Effectivity Details' sections. The 'Effectivity Level' section has radio buttons for 'At Serial Level' (selected) and 'Serial Range'. The 'Effectivity Details' section contains a table with the following data:

#	CS	AC Reg #	App. Grp. #	Applicable ?	Action on Rev. Effic. ?	Prev. Comp. Doc. #	Prev. Comp. Date	Airc
10	[icon]	NZ3801	1	Yes	Re-Comply			UH-C
11	[icon]	NZ3802	0	Yes	Re-Comply			UH-C
12	[icon]	NZ3803	0	Yes	Re-Comply			UH-C
13	[icon]	NZ3804	0	Yes	Re-Comply			UH-C
14	[icon]	NZ3805	0	Yes	Re-Comply			UH-C

Callout boxes provide the following information:

- Icons to represent compliance status (pointing to document icons in the table).
- User can define effectivity at serial or range level (pointing to radio buttons).
- Applicable? and Action on Rev. Effic.? can be set for each applicability (pointing to dropdown menus in the table).
- Provision to enter previous compliance details (pointing to empty columns in the table).
- Applicable is loaded with "Yes", "No", "Hold" and "Previously Complied" (pointing to the 'Applicable ?' column).
- Action on Rev. Effic. ? is loaded with "Re-Comply", "Carryover Compliance", "Revoke", and "Terminate" (pointing to the 'Action on Rev. Effic. ?' column).

Provision to specify inclusion of all serials for a Model # or Part #

Provision to specify range for a given Model # or Part #

Visibility of Exception for range defined

Click on to view effectivity details of entered range

Display Serial Details

Effectivity Level
 At Serial Level Serial Range

Effectivity Details

#	Aircraft Model #	Include All Srl.	Mfr. Srl. # - From	Mfr. Srl. # - To	Excep. Def.?	App. Grp.
1	UH-01	<input checked="" type="checkbox"/>			Yes	0
2		<input type="checkbox"/>				

Screen shots for Engineering Document with applicability “Engine” or “Component”

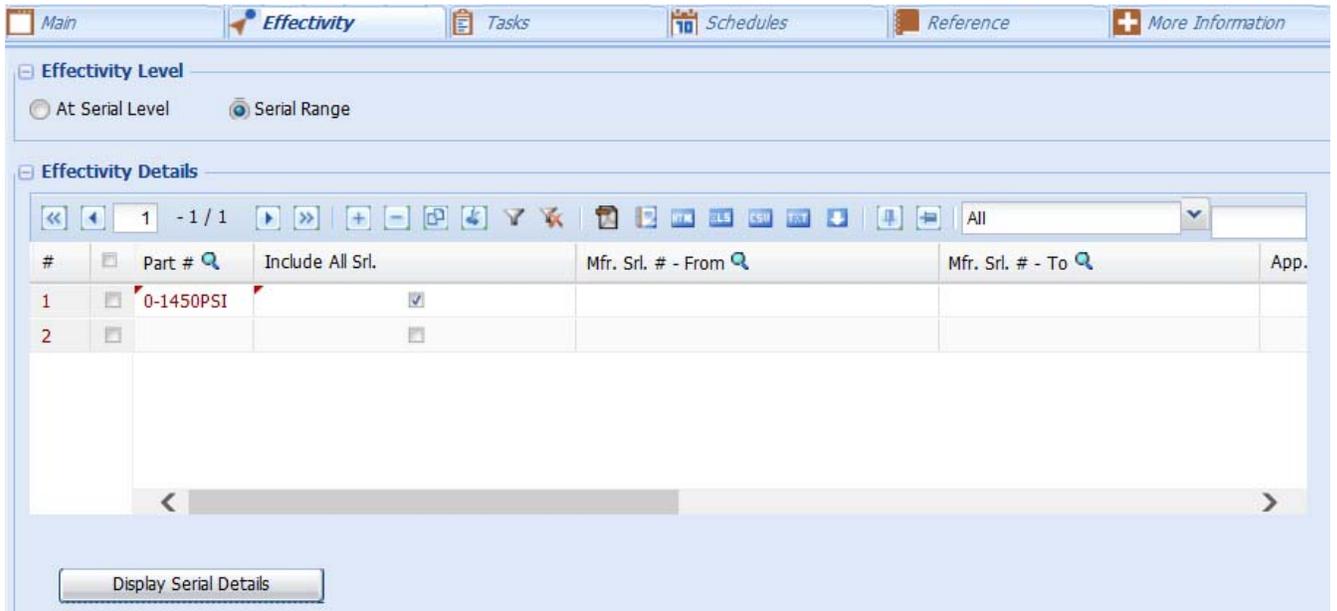
Main Effectivity Tasks Schedules Reference More Information

Effectivity Level
 At Serial Level Serial Range

Effectivity Details

#	CS	Part #	Mfr. Srl. #	App. Grp. #	Applicable ?	Prev. Comp. Doc. #
1		0-1450PSI	SL47217	0	Yes	
2		0-1450PSI	SL473932	0	Yes	
3					Yes	

Update Maint. Prog. Template Revision comments



Key Highlights:

- a. Effectivity can be defined at serial or range level.

For example: User can define each Aircraft Reg # / Part # - Serial # as effective. User can also define effectivity by specifying a serial range for Aircraft Model # or Part #. All aircrafts of specific Model # or all Components of Part # can be defined as effective.

When user specifies a Model # UH-01 and prefers a range of AH-01 to AH-100, on save, all aircraft in the mentioned range will get copied to the Engineering Document. If no aircraft exist in the specified range, the system will not copy the aircraft details, but will save the range successfully.

- b. 'Applicable?' can be set for each Aircraft Reg # or Component #.
- c. Provision to define 'Action on Revision Effec.?' at effectivity level.
- d. Facility to define an Engineering document as 'Previously Complied' for effectivity.
- e. Facility to Inactive / Terminate 'Schedule Status' of tasks in appropriate programs.
- f. Ability to Synchronize Process Change Request and Engineering document.
- g. Default value can be set for action on revision. This is set for Engineering Document Type. Option set is "Default value for 'Action on Rev. Effec. ?' in Effectivity."
- h. Applicable? Can be loaded with "Previously Complied" and "Hold" based on option set for Engineering Document Type. Option set is "Specify values for 'Applicable ?' in Effectivity".

1. Set "Hold" to load "Yes", "No" and "Hold" in 'Applicable?'
 2. Set "Previously Complied" to load "Yes", "No" and "Previously Complied" in 'Applicable?'
 3. Set "Hold" and "Previously Complied" to load "Yes", "No", "Hold" and "Previously Complied" in 'Applicable?'
 4. Set "None" to load "Yes" and "No" in 'Applicable?'
- i. User can add / modify effectivity without revision of the engineering document. This is achieved by following actions:
1. For Engineering Document type Set "Engineering Document Revision Policy" as "As per Revision Rules".
 2. Set "Mandate Revision on Addition of Effectivity?" as "No" to add effectivity without revision.
 3. Set "Mandate Revision on Modification of Effectivity?" as "No" to modify effectivity without revision.
 4. Set Radio button to 'Edit'

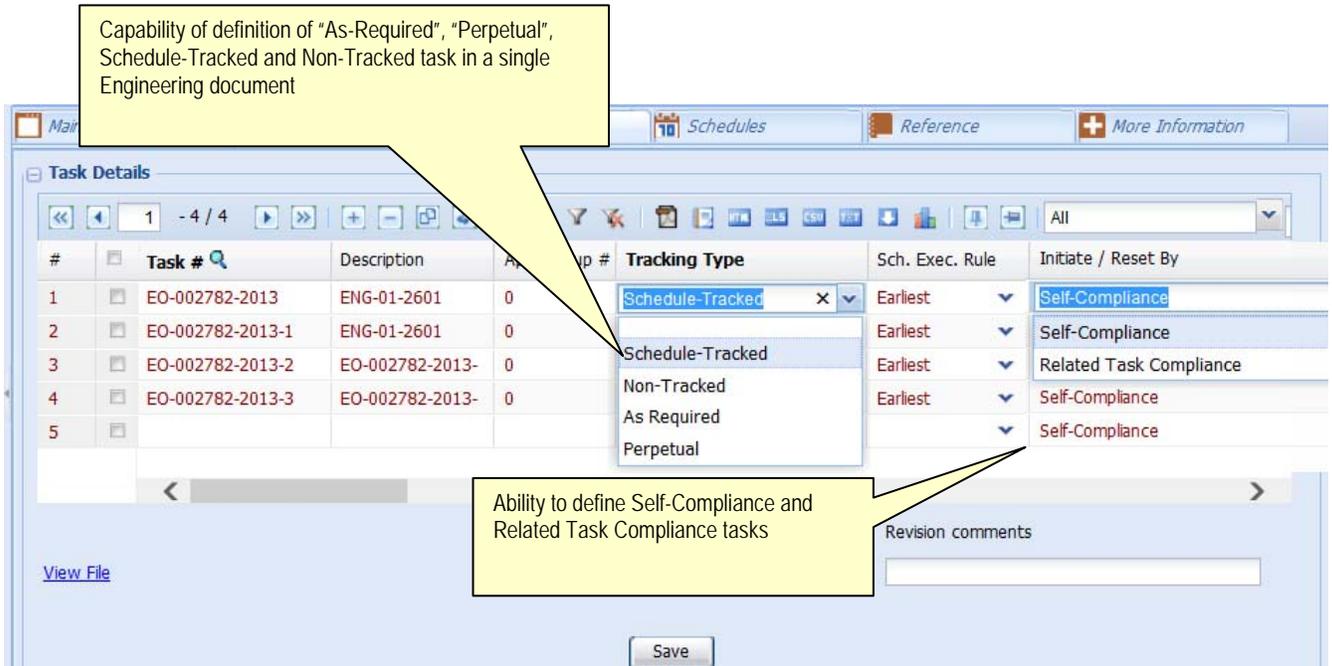


- j. For the mapped effectivity user can view program exist or not in Program Exist? Control in 'At Serial Level' multiline.

Compliance Status icon familiarization

1.  → Icon indicates that the tasks associated to the applicability group are complied.
2.  → Icon indicates that tasks associated to applicability group are yet to be complied against the effectivity and engineering document.
3.  → Icon indicates that tasks associated to applicability group are complied and are recurring.
4.  → Icon indicates that tasks associated to applicability group are partially complied against the effectivity and engineering document.
5.  → This icon is displayed when Applicable? is set as "Previously Complied".
6.  → This icon indicates that effectivity defined is not applicable for the engineering document. i.e. Applicable? is set as "No".
7.  → This icons indicates that Applicability? For effectivity is set as "Hold".

Task Tab:



Key Highlights:

User can create Engineering Document with both schedule tracked and As-Required tasks.

User can set "Initiate / Reset By" as "Self-Compliance" or "Related Task Compliance".

Inactivation of previous revision of Improved task can be achieved on release of Engineering Document. To achieve this, for Engineering Document Type set "Inactivate previous revisions of Improved task on Eng. Doc. Release?" as "Yes"

Note : User cannot add or modify task without revising the document.

Schedules:

The screenshot shows a 'Schedule Details' form with several sections:

- Schedule Details:** Includes 'Effec. from Date' (04/06/2013) and 'Schedule Control Level' (radio buttons for 'At App. Group' and 'At Eng. Document').
- Task Identifier:** Includes 'Task # / App. Group #' (EO-002782-2013 :: 0), 'Description' (ENG-01-2601), and 'Effectivity List' (NZ3801,NZ3803).
- Calendar Schedules:** Includes 'Time Unit' (Days), 'Update Basis' (Actual Completion), 'Threshold', 'Threshold Date', 'Alert Value', 'Repeat Interval', 'Terminating Value', and 'Terminating Date'.
- Usage Schedules:** Includes a toolbar and a table with columns: #, Parameter, Threshold Interval, Threshold, Repeat, Positive, and Ne.

Callouts highlight the following features:

- 'Computation based on Effec. From Date' points to the 'Effec. from Date' field.
- 'Provision to define schedules at task/ app. Group level or Engineering Document level' points to the 'Schedule Control Level' radio buttons.
- 'Capability of setting Update Basis Engineering Order tasks' points to the 'Update Basis' dropdown menu.

Key Highlights:

- a. Intelligence to understand "Schedule Type" based on interval availability. If Repeat Interval is entered, Schedule Type is considered as "Recurring" else "One Time".
- b. Computation is done based on Effec. From Date.

Date Based Schedules:

- i. If Threshold Date is not entered and Threshold is entered:

$$\text{Next Schedule Date} = \text{Effec. From Date} + \text{Threshold}$$
- ii. If Threshold Date and Threshold are not entered and Repeat Interval is entered:

$$\text{Next Schedule Date} = \text{Effec. From Date} + \text{Repeat Interval}$$

iii. If Action on revision is set as "Carry- Over Compliance" and corresponding tasks are not complied or if 'Action on Revision' is set as "Re-Comply" then computation is done based on "i" and "ii"

iv. If Action on revision is set as "Carry- Over Compliance" and corresponding tasks are complied then:

$$\text{Next Schedule Date} = \text{Last Performed Date in program} + \text{Repeat Interval}$$

Usage Based Schedules:

i. If Threshold is not entered and Threshold Interval is entered

$$\text{Next Schedule Value} = \text{Parameter value at Effec. From Date} + \text{Threshold Interval}$$

ii. If Threshold and Threshold interval are not entered and Repeat Interval is entered

$$\text{Next Schedule Value} = \text{Parameter value at Effec. From Date} + \text{Repeat Interval}$$

iii. If 'Action on revision' is set as "Carry- Over Compliance" and corresponding tasks are not complied or if Action on Revision is set as "Re-Comply" then computation is done based on "i" and "ii".

iv. If Action on revision is set as "Carry- Over Compliance" and corresponding tasks are complied then:

$$\text{Next Schedule Value} = \text{Last Performed Value in program} + \text{Repeat Interval}$$

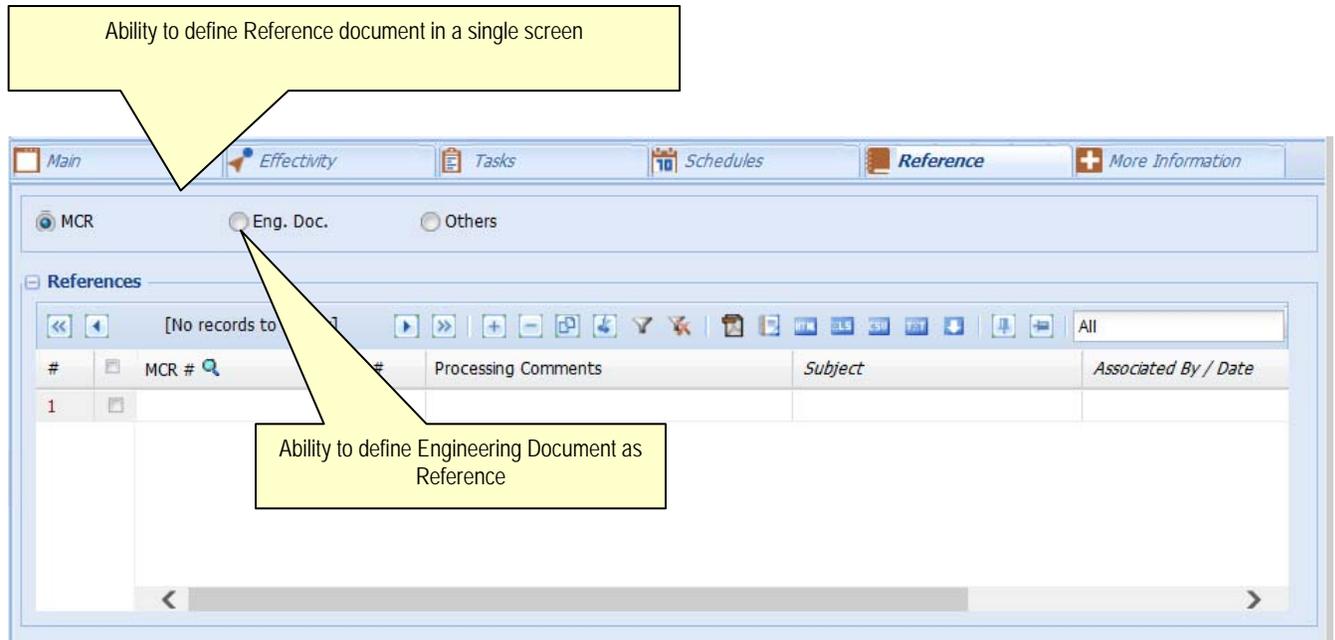
c. Capability to define Future Dated Engineering Document. User can set "Effec. From Date" as future date.

$$\text{Next Schedule Date / Value will not be computed for same.}$$

d. Ability to set 'Update Basis' for Aircraft applicable Engineering document.

Note : User cannot add or modify task without revising the document.

Reference:



Key Highlights:

- a. Ability to define all references in a single page.
- b. Ability to define cross references. User can define an Aircraft applicable MCR as reference for Component / Engine applicable Engineering Documents. Vice-Versa is also true.
- c. Ability to Synchronize Process Change Request and Engineering document. The PCR of entered MCR will get updated with all Effectivity List in "Effectivity Tab" with working Engineering document reference.
- d. Facility to provided Engineering Document as reference. This enables cross linking of Engineering Document.

Example :

If engineering document # SB-A320-10-10-12 is added as reference for Engineeringing document # SB-A320-10-10-13, system adds document # SB-A320-10-10-13 as reference for Engineering document # SB-A320-10-10-12.

- e. User can add / modify References based on option set for Engineering Document Type. Option to be set is "Mandate Revision on Addition of Reference?".

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1. If revision is not mandatory for addition or modification of Reference, set the option as “No”.
2. To mandate revision on addition or modification of MCR Reference, set the option as “MCR”.
3. To mandate revision on addition or modification of Engineering Document reference, set the option as “Eng. Doc. ”.
4. To mandate revision on addition or modification of Other reference, set the option as “Others ”.
5. To mandate revision on addition or modification of MCR and Engineering Document reference set the option as “MCR-Eng. Doc”.
6. To mandate revision for all reference addition or modification, set the option as “All”.

Note : Set Radio button to Edit to work on released engineering document without revision.

Create Edit Revise

More Information

The screenshot displays the 'More Information' tab of a software interface. The interface is divided into several sections:

- Budgetary:** Includes fields for Base currency (NZD), Resource Cost (0.00), Other Cost, Total Cost, Part Cost, Recurring Cost, Kit Cost, and Budgetary.
- Warranty:** Includes Coverage (Non-Claimable), Applicability (Material, Labour, Facilities, Others), and Remarks.
- Weight & Balance:** Includes Change in Weight, Change in Moment, and Change in Electrical Load.
- Additional:** Includes checkboxes for Test Flight Required?, Follow-Up Action Required?, and Generate PR Automatically?.
- User Defined Details:** Includes Ref. Doc. Type, Ref. Doc. #, and User Status.

A yellow callout box with a pointer to the 'Budgetary' section contains the text: "Budgetary, Warranty, Weight and Balance, Additional and User Defined Details are defined here".

Key Highlights:

User can add / modify More Information based on option set for Engineering Document Type. Option to be set is “Mandate Revision on Modification of More Information?”.

Note: Set Radio button to ‘Edit’, to work on released engineering document without revision.



Set options :

Eng. Doc Type in “Configure Document Attribute” is added with following attributes

Attribute	Permitted Values
Engineering Document Revision Policy	Enter "0" for 'Revision Mandatory', "1" for 'As per Revision Rules'
Mandate Revision on Addition of Effectivity?	Enter "0" for 'No', "1" for 'Yes'
Mandate Revision on Modification of Effectivity?	Enter "0" for 'No', "1" for 'Yes'
Mandate Revision on Addition of Reference?	Enter "0" for 'No', "1" for 'MCR', "2" for 'Eng. Doc', "3" for 'Others', "4" for 'MCR-Eng. Doc', "5" for 'All'
Mandate Revision on Modification of More Information?	Enter "0" for 'No', "1" for 'Yes'
Default value for 'Action on Rev. Effec. ?' in Effectivity.	Enter "0" for 'BLANK', "1" for 'Re-comply', "2" for 'Carryover Compliance'
Specify values for 'Applicable ?' in Effectivity	Enter "0" for 'Hold', "1" for 'Previously Complied', "2" for 'Hold' and 'Previously Complied', "3" for 'None'
Inactivate previous revisions of Improvised task on Eng. Doc. Release?	Enter "0" for 'No', "1" for 'Yes'
Update 'Applicable?' as "No" on Part / Serial # change?	Enter "0" for 'No', "1" for 'Yes'

- a. Engineering Document Revision Policy: If set as “Revision Mandatory”, system will mandate user to revise the Engineering Document on modification. If set as 'As per Revision Rules' user can set the rule for revision such as “Mandate Revision on Addition of Effectivity?” or “Mandate Revision on Modification of Effectivity?” or “Mandate Revision on Addition of Reference?” or “Mandate Revision on Modification of More Information?”
- b. Mandate Revision on Addition of Effectivity?: This option can be set only if Engineering Document Revision Policy is set as 'As per Revision Rules'. If option is set as “Yes”, user will be mandated to revise Engineering Document on addition of effectivity. If set as “No” user can add effectivity without revising the document.

- c. Mandate Revision on Modification of Effectivity?: This option can be set only if Engineering Document Revision Policy is set as 'As per Revision Rules'. If option is set as "Yes", user will be mandated to revise Engineering Document on modification of effectivity details. If set as "No" user can modify effectivity without revising document.
- d. Mandate Revision on Addition of Reference?: This option can be set only if Engineering Document Revision policy is set as 'As per Revision Rules'.
 - 1. If revision is not mandatory for addition or modification of Reference, set the option as "No".
 - 2. To mandate revision on addition or modification of MCR reference, set the option as "MCR".
 - 3. To mandate revision on addition or modification of Engineering document reference, set the option as "Eng. Doc. ".
 - 4. To mandate revision on addition or modification of Other reference, set the option as "Others ".
 - 5. To mandate revision on addition or modification of MCR and Engineering Document reference, set the option as "MCR-Eng. Doc".
 - 6. To mandate revision for all reference addition or modification, set the option as "All".
- e. Default value for 'Action on Rev. Effec. ?' in Effectivity. : User can set a default value for Action on Rev. Effec. ? control in Effectivity page of 'Manage Engineering Document'. User can set values as "Blank", "Re-Comply", or "Carry Over Compliance".
 - 1. Specify values for 'Applicable ?' in Effectivity : Applicable ? Combo loading in effectivity page can be controlled by this option. Set "Hold" to load "Yes", "No" and "Hold" in applicable?
 - 2. Set "Previously Complied" to load "Yes", "No" and "Previously Complied" in applicable?
 - 3. Set "Hold" and "Previously Complied" to load "Yes", "No", "Hold" and "Previously Complied" in applicable?
 - 4. Set "None" to load "Yes" and "No" in applicable?.
- f. Inactivate previous revisions of Improvised task on Eng. Doc. Release? : To inactive previous revision of improvised task on release, set the option as "Yes". Else set as "No".
- g. Update 'Applicable?' as "No" on Part / Serial # change? : During Part #/Serial # change (Not correction) based on this option Applicable will be flipped to "No" in effective engineering documents.

B. Manage Engineering Document in View Mode

Reference: AHBE-254

Background

Provision to view the Engineering Document details in the **Manage Engineering Document** activity is enabled, which avoids multiple traversing and ensures better visibility in one go.

Change Details:

You can view the Engineering Document details based on the user mapping. When the user mapping is only for the **Manage Engineering Document** activity, the 'View' radio button appears alongside the Create / Edit / Revise buttons. In this mode, you can create / edit / revise / view the engineering document.

When the user mapping is for both the **Manage Engineering Document** activity and **View / Manage Engineering Document** activity (Dummy activity), only the 'View radio button appears. In view mode, only the 'Eng. Doc.' radio button is enabled. The tree displays all the Eng. Doc. irrespective of the status.

C. Enhancements in Initialize Eng. Doc screen

Reference: AHBE-318

Background

Modifications are done to synchronize with changes in the new Engineering Document and also to address few gaps.

Change Details:

- a. User can launch and view Initialize Eng. Doc. Schedules, even if the Engineering Document is in 'Released' status. User is allowed to edit Next Schedule Date / Value if either of the following parameters is set as "No" in the "Common Master" for the 'Eng. Doc. Type':

- Mandate Revision on Addition of Effectivity?
- Mandate Revision on Modification of Effectivity?

On successful save, the system will update Next Schedule Date / Value to corresponding Maintenance Program.

If both the parameters are set as "Yes" for a released Engineering Document, screen will not have submit button. User cannot modify any data.

- b. Schedule Type which was earlier available at the Engineering Document level, is now made available at each task level. New control "Schedule Type" is added in multiline to view the Schedule Type of each task.
- c. Visibility of program is made available in the **Initialize Eng. Doc. Schedules** screen. The screen will display Program Next Schedule Date / Value, Program Last Performed Date / Value and Program Sch. Status, if the task and schedules (defined in the Engineering Document) are available in corresponding Aircraft / Component program.

Initialize Eng. Doc Schedules

Eng. Doc. # eo-00-06-33 Revision # 1
Subject Check Applicability Component
Source Doc. Type SORUCEDOC Eng. Doc. Type? EO
Effective From Date Schedule Type
User Status

Doc Schedule Details

	Prgm. Next Sch. Date	Prgm. Next Sch. Value	Prgm. Last Prf. Date	Prgm. Last Prf. Value	Prgm. Sch. Status
<input type="checkbox"/>	10.00		10.00		Active
<input type="checkbox"/>	24.10.2013		24.05.20		Active
<input type="checkbox"/>					

Visibility of schedules of tasks in program

D. Enhancements in Process Change Request

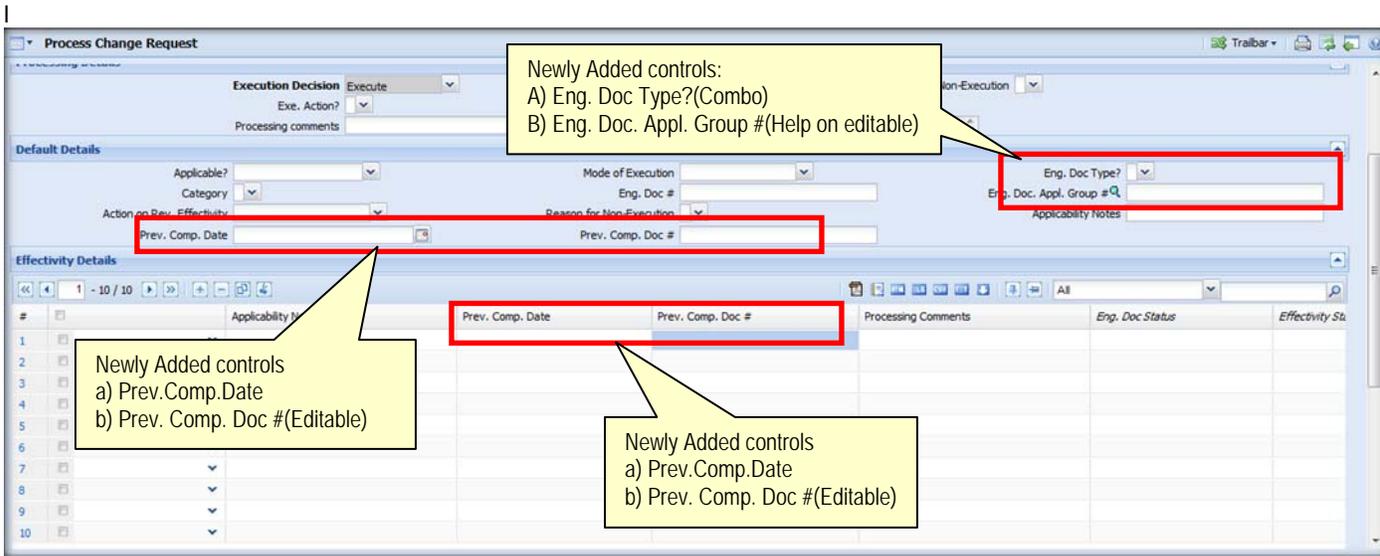
Reference: AHBD-1690

Background

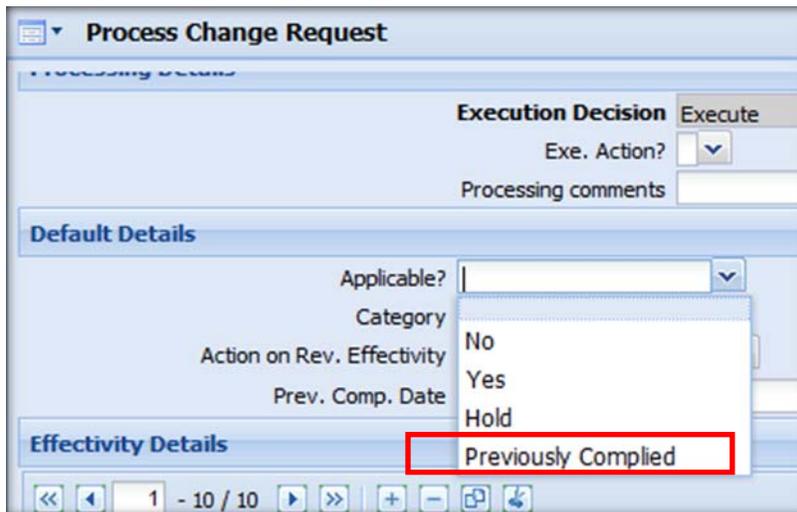
Modifications are done to synchronize with changes in the new Engineering Document.

Change Details:

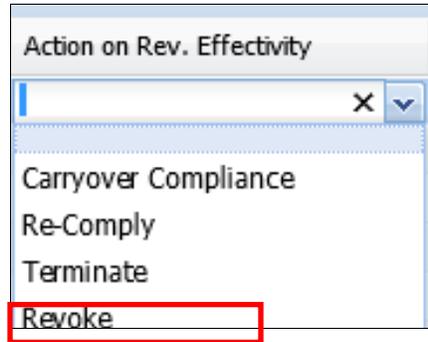
- a. Following controls are added in Default Details section to facilitate more default options, also in multiline.



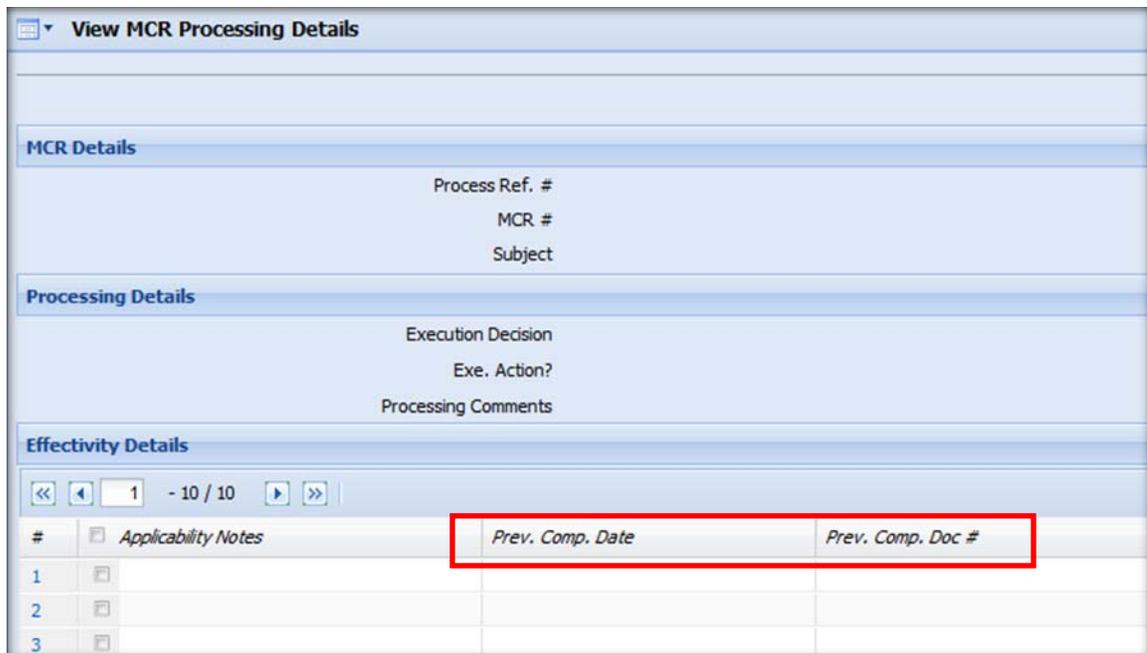
- b. New value 'Previously Completed' is added in combo Applicable? This option can only be set if Execution Decision is set as "Execute".



- c. Action on revision effectively is loaded with a new value terminate. On setting this option, on release of engineering document, corresponding task is terminated in maintenance program. 'Revoke' will inactive the schedule status of tasks in maintenance program.



- d. If 'Execution Decision' is set as "Not to Execute" or "Hold", 'Record' and 'Confirm Assessment' can be performed without any data in multiline.
- e. In View MCR Processing Details interface, Prev. Compliance Date and Document # is added as display only controls in the multiline. This will display data saved in Process Change Request interface.



E. Enhancement in Update Eng. Doc. Effectivity

Reference: AHBE-6818

Background

This enhancement addresses the impact of Engineering Document changes in **Update Eng. Doc. Effectivity**.

Change Details

- a. Maintenance Object cannot be added, with 'Compliance Status' as "Complied", to an Engineering Document # having Eff. From Date is later than current server date and time.
- b. On addition of Maint. Object to an Engineering Document:
 1. If Compliance Status is set as "Complied" or "Not Complied", 'Effectivity' tab in corresponding Engineering Document – Rev # will get updated with Aircraft / Part # - Serial # Effectivity. Applicable? control will have value set as "Yes".
 2. If Compliance Status is set as "Not Applicable", 'Effectivity' tab in corresponding Engineering Document – Rev # will get updated with aircraft / Part # - Serial # Effectivity. Applicable? control will have value set as "No".
 3. On update of effectivity in Engineering Document, Effectivity tab, or Process Change Request, "Processing Comments" of corresponding screen will get updated with the comment "*Updated from Update Eng. Doc. Effectivity by ^User Name! "<Value>" on ^Date & Time! "<Value>".*
- c. User can map a Part # - Serial # to an Engineering Document having MCR #'s applicability as "Aircraft". Vice-Versa is also supported.
- d. Next Schedule Date / Value computation logic if compliance status is set as "Not Complied":

Date Based Schedule:

- i. If Threshold Date is not entered and Threshold is entered:
$$\text{Next Schedule Date} = \text{Effec. From Date} + \text{Threshold}$$
- ii. If Threshold Date and Threshold are not entered and Repeat Interval is entered:
$$\text{Next Schedule Date} = \text{Effec. From Date} + \text{Repeat Interval}$$

Usage Based Schedules:

- i. If Threshold is not entered and Threshold Interval is entered

Next Schedule Value = Parameter value at Effec. From Date + Threshold Interval

- ii. If Threshold and Threshold interval are not entered and Repeat Interval is entered

Next Schedule Value = Parameter value at Effec. From Date + Repeat Interval



Note: For future dated Engineering Document, NSD / NSV will not be computed.

Update Eng. Doc Effectivity

#	Eng. Doc. #	Rev No	Applicability Group	Status	Compliance Status	Reason For Non Execution
1	EA-000001-2009	0	0	Released		
1	EA-000005-2009	0	1	Released		
1	EA-000006-2009	0	1	Released		
1	EA-000007-2009	0	1	Released		
1	EA-000008-2009	0	1	Released		
18	EA-000027-2011	0	0	Released		
19	EA-000028-2011	0	0	Released		
20	EA-000029-2011	0	0	Released		
21	EA-000035-2011	0	0	Released		
22	EA-000037-2011	1	0	Released		
23	EA-000038-2012	0	0	Released		
24	EA-000039-2012	0	0	Released		

Object Details

Maintenance Object: [Aircraft Reg #](#)

[Update Effectivity](#)

[View Eng. Doc Task Details](#)

[Initialize Maint. Prog. & Update Compliance](#) [Process Change Request](#) [View Eng. Doc Task Details](#)

F. Enhancements in Maintenance Change Request

Reference: AHBE-4755

Background

Visibility of entered MCR subject was minimal in **Create / Edit / Revise** and **View Maintenance Change Request** interface. This enhancement addresses the issue.

Priority was required to set during creation of Maintenance Change Request, even though user is not aware. This enhancement addresses the issue.

Change Details:

- a. Text area of MCR subject is increased in **Create / Edit / Revise** and **View Maintenance Change Request** interfaces.

Create Maintenance Change Request

The screenshot shows the 'Create Maintenance Change Request' form. It includes fields for 'MCR # / Rev. #', 'Subject', 'Doc. Issue Date' (12/09/2013), 'Eff. From Date', 'Status', 'Receipt Date' (12/09/2013), and 'User Status'. A callout points to the 'Doc. Issue Date' label, stating 'MCR Issue Date caption is modified to Doc. Issue Date'. Another callout points to the 'Subject' text area, stating 'MCR subject length is increased'.

Edit Maintenance Change Request

The screenshot shows the 'Edit Maintenance Change Request' form. It includes fields for 'MCR # / Rev. #' (143), 'Subject' (APU), 'Doc. Issue Date' (28/02/2012), 'Status' (Fresh), 'Receipt Date' (28/02/2012), and 'User Status'. A callout points to the 'Doc. Issue Date' label, stating 'MCR Issue Date caption is modified to Doc. Issue Date'. Another callout points to the 'Subject' text area, stating 'MCR subject length is increased'.

View Maintenance Change Request

The screenshot shows the 'View Maintenance Change Request' form. It includes fields for 'MCR # / Rev. #' (MSB42-005), 'Subject' (One engine inoperative climb/decent performance data, Software for TAE engine, Software for Garmin G1000), 'Doc. Issue Date' (12/09/2013), 'Status' (Fresh), and 'Receipt Date' (12/09/2013). A callout points to the 'Doc. Issue Date' label, stating 'MCR Issue Date caption is modified to Doc. Issue Date'. Another callout points to the 'Subject' text area, stating 'MCR subject length is increased'.

Revise Maintenance Change Request

MCR Issue Date caption is modified to Doc. Issue Date

MCR subject length is increased

MCR # MSB42-005	Revision #
Subject One engine inoperative climb/decent performance data, Software for TAE engine, Software for Garmin G1000	Receipt Date 12/09/2013
Doc. Issue Date 12/09/2013	User Status
Eff. From Date	

- b. Priority combo is loaded with 'Blank' in addition to the existing values.
- c. Caption is modified from MCR issue Date to Doc. Issues date in interfaces **Create / Edit / View / Revise Maintenance Change Request, Edit / View Concurrent Requirements, Edit / View Terminated Maint. Change Req. List of Maintenance Change Request** business component and **Update Eng. Doc Effectivity, Manage Eng. Document** interfaces of **Engineering Document** business component.
- d. Caption is modified from Suggested Part # to Post Mod. Part # in **Confirm / View New Part Requirements** interface of Engineering Document.

Confirm New Part Requirements

Eng. Doc Details

Eng. Doc. #

Subject

Part Details

"Suggested Part #" is renamed as "Post Mod Part #"

#	Actual Part #	Post Mod. Part #
1		
2		

View New Part Requirements

Eng. Doc Details

Eng. Doc. #

Subject

Currency

"Suggested Part #" is renamed as "Post Mod Part #"

#	Post Mod. Part #	Actual Part #
1		
2		

G. Identification of non-components for part number change through engineering document

Reference: AHBE-9977

Background

In new generation aircrafts, functionality of 'Feature Loadable Systems' are changed or updated using 'Onboard Softwares'. Hence tracking of mod of software becomes critical.

This enhancement is to facilitate Mod of software through Service Bulletins or Airworthiness Directive.

Change Details

Changes are done in the following screens of **Engineering Document** business component:

- a. Edit Configuration Change Information
- b. Edit Aircraft Config. Change Details
- c. Edit Component Config. Change Details
- d. View Aircraft Config. Change Details
- e. View Component Config. Change Details
- f. Release Engineering Document

The **Edit Configuration Change Information** screen is enhanced for recording Piece part information, for configuration change.

On save with a piece part, its Position code, Position description, Position status, Qty. and NHA Part # are shown in **Edit Aircraft Config. Change Details / Edit Component Config. Change Details** screens, based on effectivity. For SB/AD of Applicability 'Aircraft', piece parts configurations of attached components are only considered. For SB/AD of Applicability 'Component / Engine', piece parts configuration of effective components and its attached components are considered. Note that piece part #s defined as 'Reference Part #' in piece part configuration are only eligible for part change. Value in 'Part Type' column differentiates Piece part. (For piece part, Part Type is "Expandable" and for configuration part, Part Type is "Component")

Visibility of configuration of piece part details are shown in **View Aircraft Config. Change Details** and **View Component Config. Change Details** screens.

Exhibit 1: Edit Component Configuration Change Information

Eng. Doc Details

Eng. Doc #

Eng. Doc Subject

Component #

Revision #

Configuration Change Details

#	serial #	NHA Part #	New Part #	Part Type	Position Description	Qty.	Position Status	ATA #
1								
2								
3								
4								
5								

Exhibit 2: Edit Component Configuration Change Information

Eng. Doc Details

Eng. Doc #

Eng. Doc Subject

Manufacturer #

Variable Tab #

Revision #

Configuration Change Details

#	Existing Part Serial #	NHA Part #	New Part #	Part Type	Position Description	Qty.	Position Status	ATA #
1								
2								
3								
4								
5								

Exhibit 3: View Component Configuration Change Information

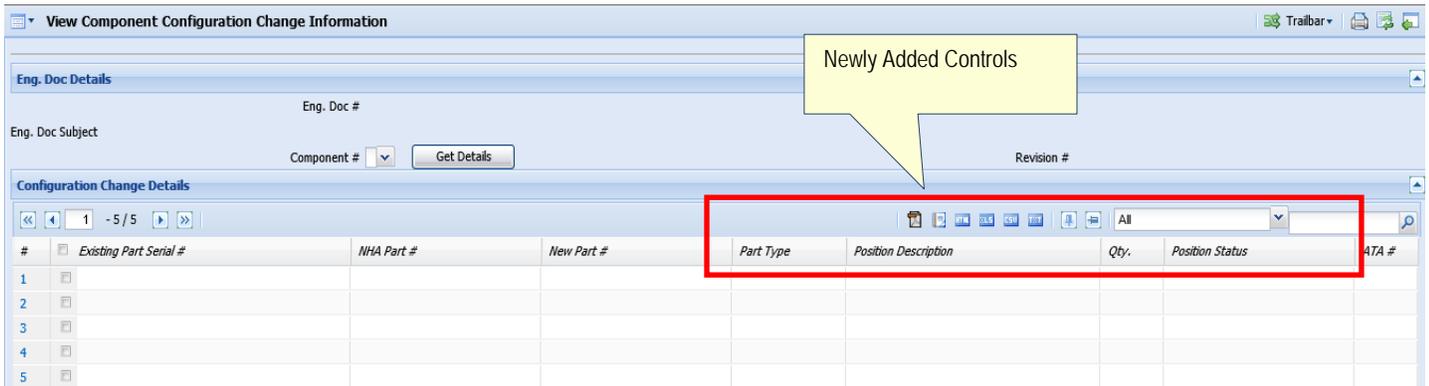
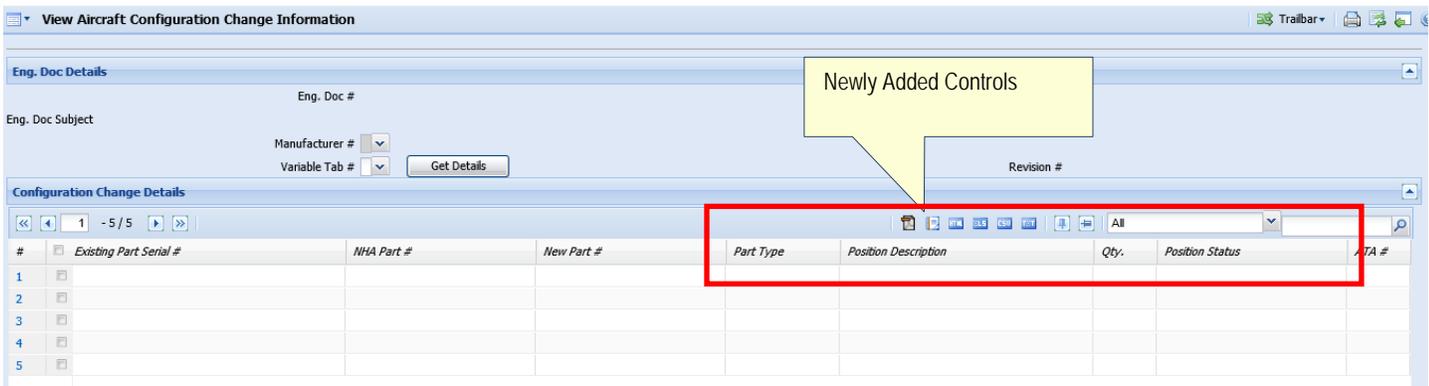


Exhibit 4: View Aircraft Configuration Change Information



The **Edit Aircraft Config. Change Details** and **Edit Model Config. Change Details** screens can only be launched for 'Aircraft' applicable SB/ADs.

The **Edit Component Config. Change Details** and **Edit Part Config. Change Details** screens can only be launched for 'Component' / 'Engine' applicable SB/ADs.

An Engineering Document will not be released, if configuration changes are recorded and mod part # is not available in configuration of effective aircraft / component.

Note: Configuration change for piece parts defined in Aircraft, Model, and Part configuration will be handled in subsequent releases.

H. Operations Type to be defaulted with option setting

Reference: AHBE-11836

Background

Maintenance task is classified based on its execution type as Flight Operations (Line Maintenance) and Repair Station (Hanger/MRO Maintenance). Based on industry preference it will be either Flight Operations or Repair Station. This preference needs to be considered in task authoring, SB/AD task authoring and task search.

New feature enables to capture Operation Type preference and is used in defaulting in **Maintenance Task** and **Engineering Document** interfaces.

Change Details

A new process parameter “Default Operations Type” is introduced in Eng. Doc Type Entity Type, **Define process Entities**, to capture Operation Type preferences in **Manage Engineering Document**.

If value “0” is set against “Default Operations Type”, Flight Operations will be the Operations Type preference and if value “1” is set, Repair Station will be the Operations Type preference for defaulting in the **Tasks** tab of the **Manage Engineering Document** screen.

WHAT'S NEW IN MAINTENANCE TASK?

A. Ability to update task attributes back to Eng. Doc whenever it is modified.

Background

In a class of industry, Engineering Document tasks are allowed to modify only through Engineering Document. The current solution does not restrict modification of Engineering Document tasks from task masters.

Change Details:

Modification of Engineering Document tasks can be restricted by setting option for Engineering Document type of Engineering Document with reference to which task is created. Option to be set is "Allow modification of Eng. Doc. task attributes from 'Task Master'?".

If option is set as "Yes", user can modify task from **Maintain Activated Task** activity. Following attributes if modified get updated back to Engineering Document.

- a. Task Description
- b. Task Category
- c. Task Type
- d. Operation Type
- e. Est. Man Hrs.
- f. Est. Elapsed Time
- g. DSC #
- h. DSC Description
- i. Long Description
- j. AMM / CMM Item #

If option is set as "No", user cannot modify the task from the **Maintain Activated Task** activity. The System will also restrict user from launching all the links in the **Maintain Activated Task** screen.

This option is not applicable on modification of Engineering Document task from the **Edit Task** screen.

B. Operations Type to be defaulted with option setting

Reference: AHBE-11836

Background

Maintenance task is classified based on its execution type as Flight Operations (Line Maintenance) and Repair Station (Hangar / MRO Maintenance). Based on industry preference it will be either Flight Operations or Repair Station. This preference needs to be considered in task authoring, SB/AD task authoring and task search.

New feature enables to capture Operation Type preference and is used in defaulting in **Maintenance Task** and **Engineering Document** interfaces.

Change Details

A new process parameter "Default Operations Type" is introduced in Task Numbering Entity Type, **Define process Entities**, to capture Operation Type preferences in **Maintenance Task** interfaces.

If value "0" is set against "Default Operations Type", Flight Operations will be the Operations Type preference and if value "1" is set, Repair Station will be the Operations Type preference for defaulting in task interfaces.

This option change will have impact on the following screens of **Maintenance Task** business component:

- a. Create Task Information
- b. Select Task (Edit Task)
- c. Authorize Task
- d. Select Task (Maintain Activated Task)
- e. Select Task (View Task)
- f. Help On Task #
- g. Help on Work Unit #

C. Facility to Attach Multiple Files to Tasks

Reference: AHBE-6124

Background

Currently, only one file can be attached to a task in the Task Master. New requirement is to allow multiple files to be attached to a task. **Manage Task File Attachment** is a new interface that facilitates the attachment of multiple files to tasks and prints them as per applicability. Facility is provided to define the same from task definition and managing interfaces.

Change Details

A new interface titled **Manage Task File Attachment** is available under **Maintenance Task** business component, the major function of which is to allow user to upload task cards for a task, effective to specific Aircraft Model # (MSN wise) and print them as per applicability, at the time of package print / task card print. The interface also allows the user to upload task cards for component / engine specific tasks, effective to specific Part # and print them as per applicability at the time of task card print.

New link **Manage Task File Attachment** is added in following screens:

1. Create Task Information
2. Select Task (Edit Task)
3. Edit Task Information (Edit Task)
4. Select Task (View Task)
5. View Task Information
6. Select Task (Maintain Activated Task)
7. Edit Task Information (Maintain Activated Task)
8. Create Non-Standard based Standard Task
9. Manage Task Effectivity
10. Maintain Task Relationship
11. Engineering Document (Task definition page)

Functionality

Files attached from **Create Task Information**, **Edit Task Information (Edit Task and Maintain Activated Task)** and **Engineering Document** can be viewed and modified from **Manage Task File Attachment** interfaces.

Files attached for a task revision from **Manage Task File Attachment** interface will get carry forwarded to next revision of task. Files have to be uploaded to FTP using the **Upload Documents** screen before this screen can be launched and files can be attached to tasks.

Sequence # is mandatory and it defines the order in which the files will get printed when there are multiple file mappings for the same task. If no specific order is necessary, all Sequence # can be entered as 1. If files are saved in a folder and not in the root FTP path, the folder name can be mentioned in the multiline in the 'Folder Name' column.

User is required to enter a valid Aircraft MSN # that exists in the system, in both 'From MSN' and 'To MSN' fields. 'Maintenance Operator #', 'Aircraft Ownership', 'Owning Agency #', 'From MSN' and 'To MSN' are optional entries and can be specified to get specific mapping of files to tasks. Example: If a file mapping is done to a task while mentioning Aircraft Ownership as 'Customer', the file will be printed only when the aircraft from which the print functionality is being used has ownership status as 'Customer'.

Consider the following data matrix saved in the **Manage Task File Attachment** screen:

#	Task #	Revision	Task Type	Task Applicability	Aircraft Model #	Part #	From Aircraft MSN	To Aircraft MSN	Seq #	File Reference #	Folder Name	File Name
1	XA-000-02	1	MPD	Aircraft	A320				1	REF00001	A320PDFs	001.pdf
2	XA-000-02	1	MPD	Aircraft	A320		10	60	3	REF00002	A320PDFs	002.pdf
3	XA-000-02	1	MPD	Aircraft	A320		40	40	2	REF00003	A320PDFs	003.pdf
4												

If a task card for the Task # XA-000-02 is printed for an aircraft of the model A320, the system will check the MSN of the aircraft and the files are printed accordingly.

If the MSN is 40, the files that are printed are 001.pdf, 003.pdf and 002.pdf in that order (as denoted by Seq #). If the MSN is 20, the files that are printed are 001.pdf, 002.pdf. If the MSN in 80, the file that is printed is 001.pdf only as it is the only entry that has global applicability as From MSN / To MSN is not mentioned.

Limitations

1. Both Model # and Part # cannot be mentioned for a component applicable task.
2. Files that are mapped to a task during task creation in Task Master are shown here by default. But if these entries are deleted, the same is not reflected back to the Task Master. After deletion, if any changes are made to the file attachment in the Task Master, the same is not reflected back to this screen.
3. 'File Available' column is currently not functional and will be made available as part of future release.
4. When page is launched from **View Task info**, 'Save' button is enabled and the user can modify the records in the multiline. This will be addressed in the future release.

Exhibit 1:

Manage Task File Attachment screen on launch

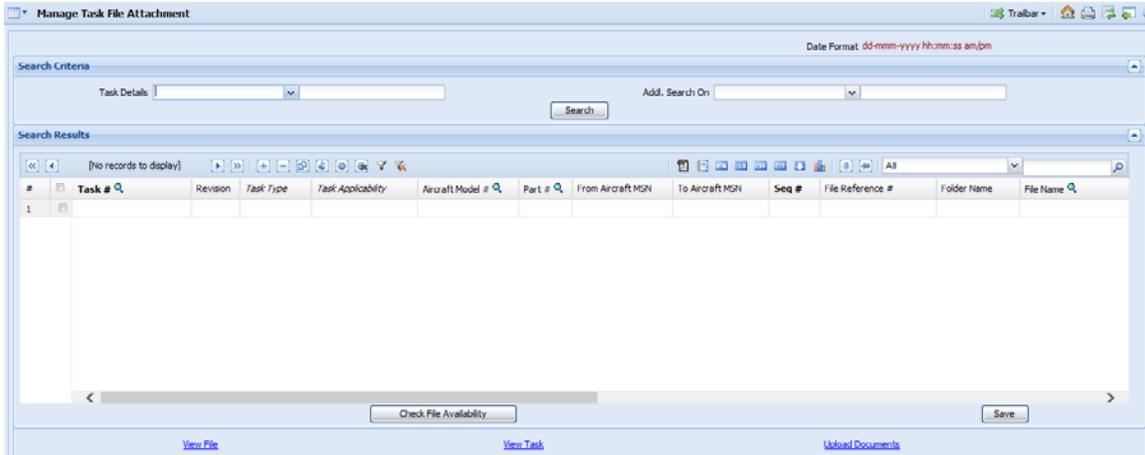


Exhibit 2:

Manage Task File Attachment screen after blank search

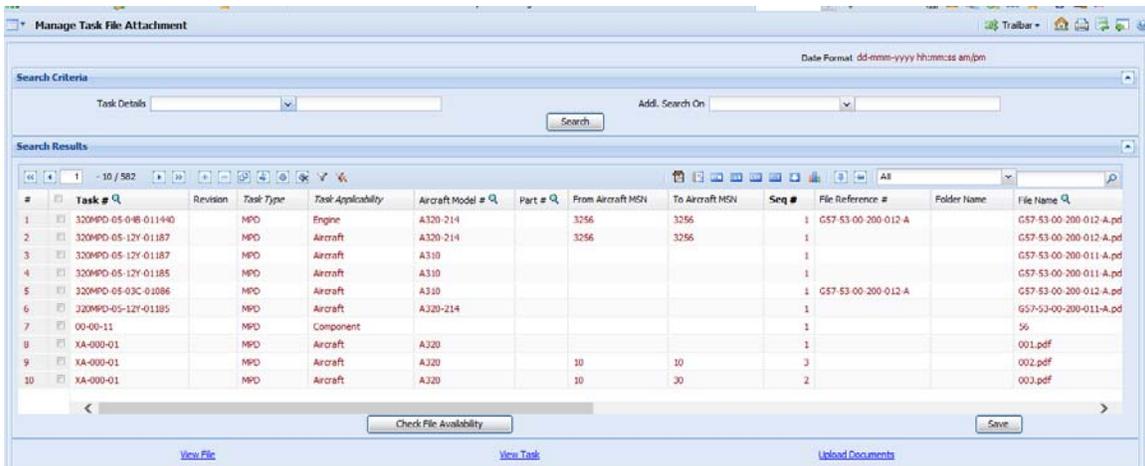


Exhibit 3:

Link from **Create Task**

Re - Number

Reference Details

Maint. Manual Ref. #

Source Document #

Child Part Mfr. #

User Defined 1

Work Location Ref. #

MPD Item #

Source Document Type Others

Manufacturer Name

User Defined 2

Document Attachment Details

File Name [View File](#)

[Edit Part Requirements](#) [Edit Resource/Sign-Off Requirements](#) [Edit Schedule Information](#)

[Edit Model Effectivity](#) [Edit Component Effectivity](#) [Edit Access Panel Details](#)

[Edit Work Area / Zone details](#) [Edit Notes](#) [Edit Task / Sub-Task References](#)

[Edit Aircraft Effectivity](#) [Edit Task Details](#) [Edit Parameter Deadline / Eval. Form](#)

[Maintain Repair Scheme](#) [Manage Task Effectivity](#) [Manage Task File Attachment](#)

Exhibit 4:

Link from **Select** screens, **Edit Task** and **Maintain Activated Task**

Work Center # Document #

Search Results

[No records to display]

#	Task Applicability	Base Aircraft Model #	Task #	Revision #	Task Desc.
---	--------------------	-----------------------	--------	------------	------------

[Edit Task Details](#) [View Status Log](#) [Maintain Task Relationship](#)

[Maintain Repair Scheme](#) [Manage Task File Attachment](#)

Exhibit 5:

Link from **Edit Task Information (Edit Task and Maintain Activated Task)**

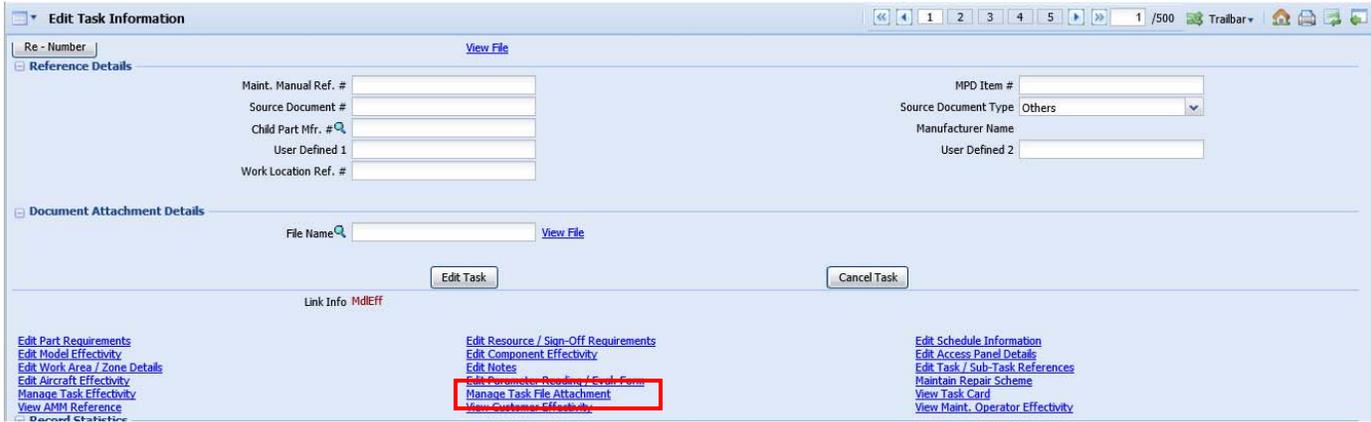


Exhibit 6:

Link from **Select screen (View Task)**



Exhibit 7:

Link from **View Task Information**

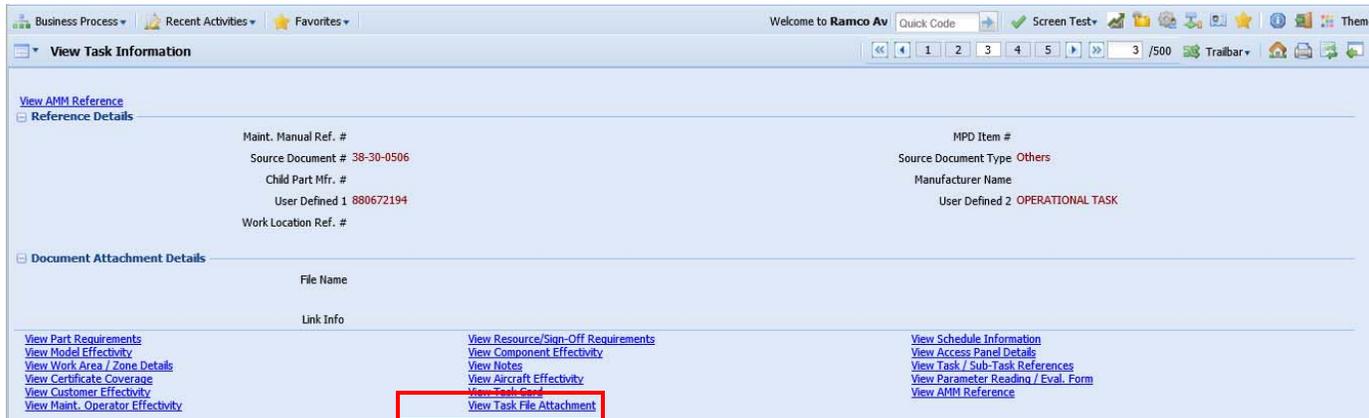


Exhibit 8:

Link from **Maintain Task Relationship**

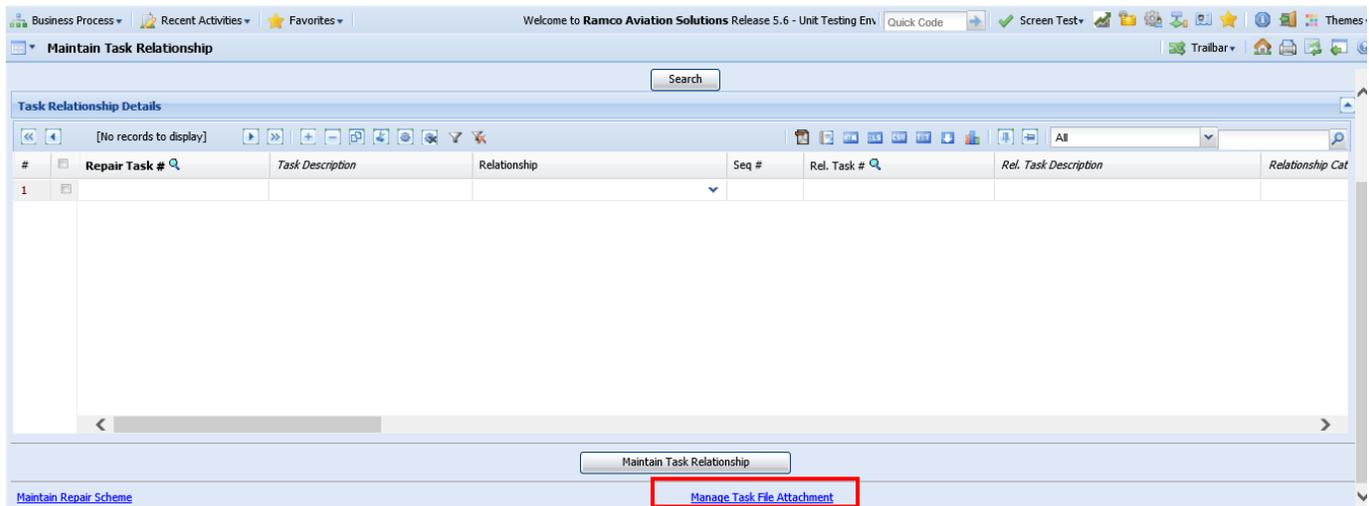
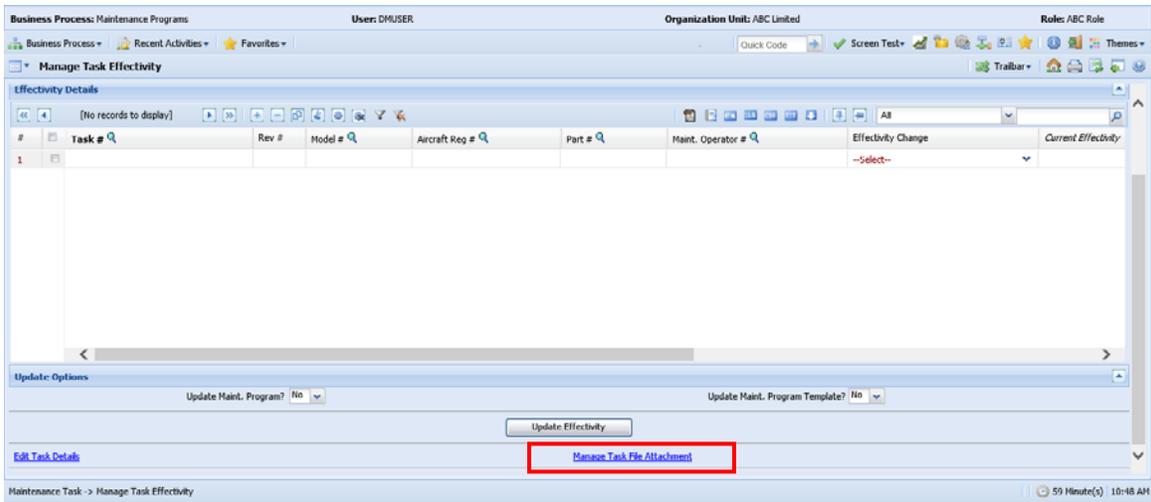


Exhibit 9:

Link from **Manage Task Effectivity**



D. Enhancements in Manage Task File Attachment Screen

Reference: AHBE-9065

Background

Ramco's Aviation Solution supports attachment of multiple task card files (soft copies from AMM) in the Manage Task File Attachment interface. These task card file soft copies will get printed along with the respective task whenever a package / work order print is taken from system.

Current functionality of the interface includes the following points:

1. User cannot check if file mentioned in the **Manage Task File Attachment** is available in the FTP path.
2. When Upload Documents link is taken, "Maintenance Task" is not defaulted in "Business Component Name" drop-down.
3. Task # is Pub/Sub to Ref. Doc. # control in **Upload Documents** interface.
4. When **Manage Task File Attachment** interface is launched from **Maintenance Task** business component, only Task # and Rev # is passed to the interface.
5. When a file is attached from Task Master but deleted from the **Manage Task File Attachment** interface, the same is not reflected back to the Task Master.
6. When a file is attached from Task Master but modified/changed to a different file from the **Manage Task File Attachment** interface, the same is not back updated to the Task Master.
7. Save button is being displayed and functional in the **Manage Task File Attachment** screen when the same is launched via a link from the **View Task** screen for a user who has view-only permissions.
8. Both Model # and Part # cannot be mentioned for a component applicable task in the **Manage Task File Attachment** screen.

Enhancements done to the interface are mentioned in the below points:

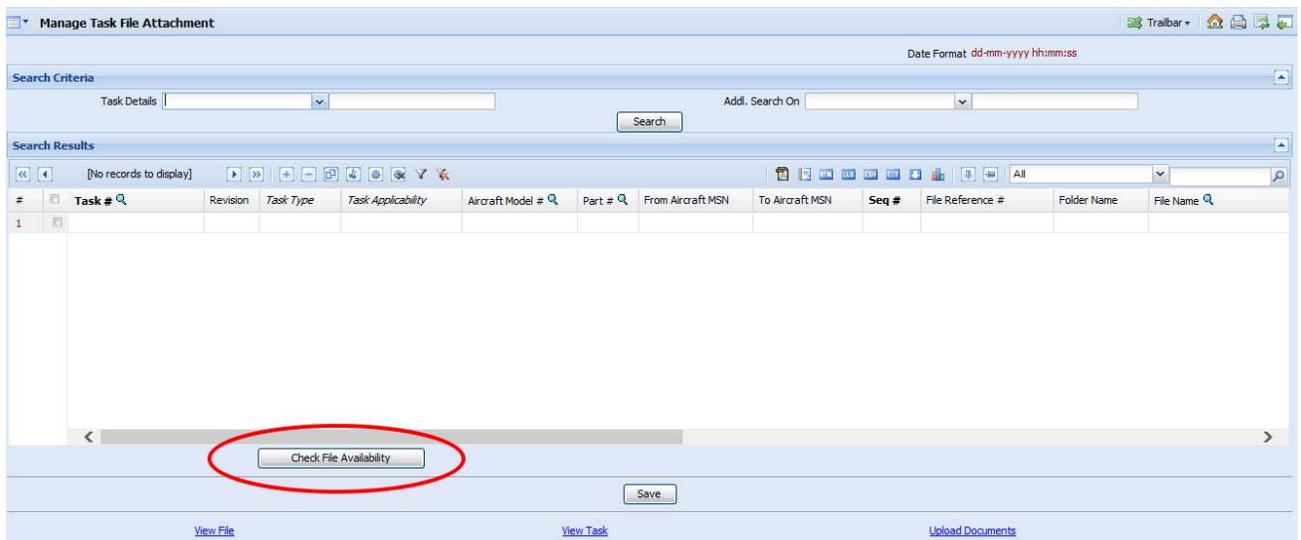
1. Ability to Check File Availability in the **Manage Task File Attachment** screen. A new button is available in the **Manage Task File Attachment** screen to check availability of files mentioned in the multiline.
2. When upload documents link is taken, "Maintenance Task" is now defaulted in "Business Component Name" drop-down.
3. Task # is no more Pub/Sub to Ref. Doc. # control in **Upload Documents** interface.

4. When **Manage Task File Attachment** interface is launched from **Maintenance Task** business component, Task #, Rev # and Model # is passed to the interface as when applicable.
5. When a file is attached from Task Master but deleted from the **Manage Task File Attachment** interface, the same is now back updated to the Task Master.
6. When a file is attached from Task Master but modified/changed to a different file from the **Manage Task File Attachment** interface, the same is now back updated to the Task Master.
7. Save button is being displayed but a validation is thrown when it is clicked in the **Manage Task File Attachment** screen when the same is launched via a link from the **View Task** screen for a user who has view-only permissions.
8. Both Model # and Part # can be mentioned for a component applicable task in the **Manage Task File Attachment** screen. And system will print the associated file only when on-wing tasks are being carried out for a component of that Part # which is attached to an A/C of that Model #.

Change Details

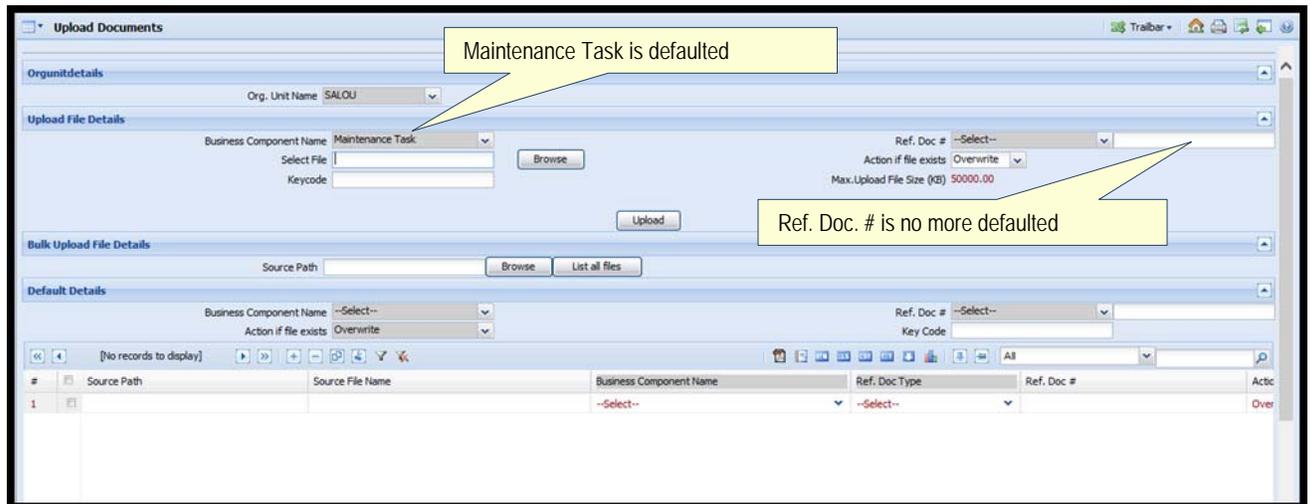
A new button **Check File Availability** is now made available in the **Manage Task File Attachment** interface, which will facilitate user to check if the files mapped against a task are available/not available in the FTP. (Refer Exhibit-1).

Exhibit 1: Check File Availability button



When **Upload Documents** link is taken from the **Manage Task File Attachment** screen, "Maintenance Task" is now defaulted in "Business Component Name" drop-down. And Task # is no more defaulted to the Ref. Doc. # control in the Upload Documents interface.

Exhibit 2: Upload Documents link launch from Manage Task File Attachment screen



Model # is also passed along with Task # and Revision # when the user selects a record from the multiline and launches the **Manage Task File Attachment** interface from other screens through link. This is applicable when the link is taken from the following interfaces:

1. Create Task Information
2. Select Task (Activity -> Edit Task)
3. Edit Task Information (Activity -> Edit Task)
4. Select Task (Activity -> View Task)
5. View Task Information
6. Edit Task Information (Activity -> Maintain Activated Task)
7. Create Non-Standard based Standard Task
8. Manage Task Effectivity
9. Maintain Task Relationship

The same is not applicable when the link is taken from the following interface:

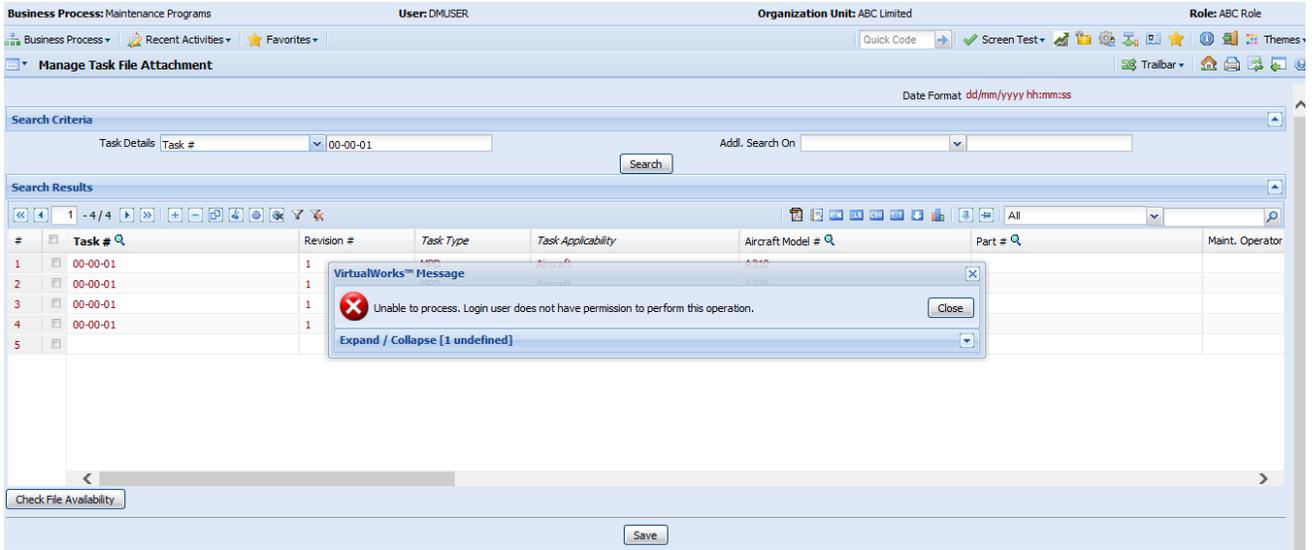
1. Select Task (Activity -> Maintain Activated Task)

When a file is attached to a task from **Create Task** or **Edit Task** or **Maintain Activated Tasks** screens, it is visible in the **Manage Task File Attachment** interface. If that entry is deleted, the same is now back updated to the Task Master. Also, if that entry is modified with another file, the same is now back updated to the Task Master.

Enhancement Notification

The **Manage Task File Attachment** interface is accessible as a link from the **View Task** screen. If the login user does not have edit/modification permissions, if he/she clicks the link from the **View Task** screen, enters the **Manage Task File Attachments** interface and modifies any entries, the system will not allow the user to save the changes and will inform the user that they do not have permission to carry out the change.

Exhibit 3: Launch from View Task when user does not have permission for changes



Both Model # and Part # can now be mentioned in the same entry in the **Manage Task File Attachment** interface for a component applicable task. If, for a component applicable task, both Model # and Part # is mentioned, the mapped File will be printed only when an on-wing task is done for a component of the above mentioned Part # is attached to an Aircraft of the above mentioned Model #.

Consider the following entries in the **Manage Task File Attachment** interface.

Exhibit 4: Data in Manage Task File Attachment interface

#	Task #	Revision	Task Type	Task Applicability	Aircraft Model #	Part #	From Aircraft MSN	To Aircraft MSN	Seq #	File Reference #	Folder Name	File Name
1	XB-000-02		MPD	Component					1	FILEREF000001		001.pdf
2	XB-000-02		MPD	Component		0021547-94:00988			2	FILEREF000002		002.pdf
3	XB-000-02		MPD	Component	A320				3	FILEREF000003		003.pdf
4	XB-000-02		MPD	Component	A320	0021547-94:00988			4	FILEREF000004		004.pdf
5												

The first row task-file mapping is applicable to any component either attached or removed (on-wing/off-wing).

The second row task-file mapping is applicable to only components that have the **Part #** as **0021547-94:00988** either attached or removed (on-wing/off-wing).

The third row task-file mapping is applicable to any component attached to an Aircraft whose **Model #** is **A320** (on-wing only).

The fourth row task-file mapping is applicable to only components that have the **Part #** as **0021547-94:00988** and attached to an Aircraft whose **Model #** is **A320** (on-wing only). Please note that both these conditions have to be satisfied to make this entry applicable while printing.

With the above data, consider the following scenarios and how the mappings are considered while printing:

1. When the **Task # XB-000-02** is done for a component whose **Part #** is **XPART-88888** and is not attached to any aircraft and when the Print Package/Print Task Card is taken, the following files will be printed: 001.pdf.
2. When the **Task # XB-000-02** is done for a component whose **Part #** is **XPART-88888** and attached to an aircraft whose **Model #** is **A310** and when the Print Package/Print Task Card is taken, the following files will be printed: 001.pdf.
3. When the **Task # XB-000-02** is done for a component whose **Part #** is **XPART-88888** and attached to an aircraft whose **Model #** is **A320** and when the Print Package/Print Task Card is taken, the following files will be printed: 001.pdf, 003.pdf.
4. When the **Task # XB-000-02** is done for a component whose **Part #** is **0021547-94:00988** and is not attached to any aircraft and when the Print Package/Print Task Card is taken, the following files will be printed: 001.pdf, 002.pdf.
5. When the **Task # XB-000-02** is done for a component whose **Part #** is **0021547-94:00988** and attached to an aircraft whose **Model #** is **A310** and when the Print Package/Print Task Card is taken, the following files will be printed: 001.pdf, 002.pdf.
6. When the **Task # XB-000-02** is done for a component whose **Part #** is **0021547-94:00988** and attached to an aircraft whose **Model #** is **A320** and when the Print Package/Print Task Card is taken, the following files will be printed: 001.pdf, 002.pdf, 003.pdf, 004.pdf.

As we can see from the 6th scenario, when the file 004.pdf is printed only when the component whose Part # is 0021547-94:00988 attached to an aircraft whose Model # is A320.

WHAT'S NEW IN AIRCRAFT MAINTENANCE EXECUTION?

A. Facility to display Aircraft Total Time (Flight Hours & Flight Cycles) for the entered aircraft

Reference: AHBE-5921

Background

Aircraft Total Time (Flight Hours & Flight Cycles) information is an essential requirement for a mechanic while performing maintenance operations like task and discrepancy sign-off. In Ramco Aviation Solution, user has to navigate to **Aircraft Consumption and Range Parameter** screen to view the Flight Hours & Flight Cycles details. In the purview of user requirement to view Aircraft Total Time while executing maintenance operations, Flight hours and Flight Cycle values will be displayed for a given aircraft, date and time values in **Aircraft Maintenance Execution** screens.

Change Details

The following screens have been modified to cater to the new requirement:

1) Record Aircraft Execution Details page: Web Application

- 1.1) New display only controls "Flt. Hrs. and Flt. Cycles" have been added in 'Execution Details' section. New icon "Flt. Hrs. and Flt. Cycles" has been added next to 'Date & Time' control in 'Execution Details' section. Refer **Exhibit 1**.
- 1.2) Flt. Hrs. and Flt. Cycle values will be retrieved on click of Aircraft 'GO' / 'On Enter' in **Record Aircraft Maintenance Execution Details** page for the entered aircraft, if date and time values are defaulted in **Execution Details** section.
- 1.3) User can modify the date and time values in **Execution Details** sections and retrieve the Flt. Hrs. and Flt. Cycle values for the entered date & time by clicking "Flt. Hrs. and Flt. Cycles" icon.

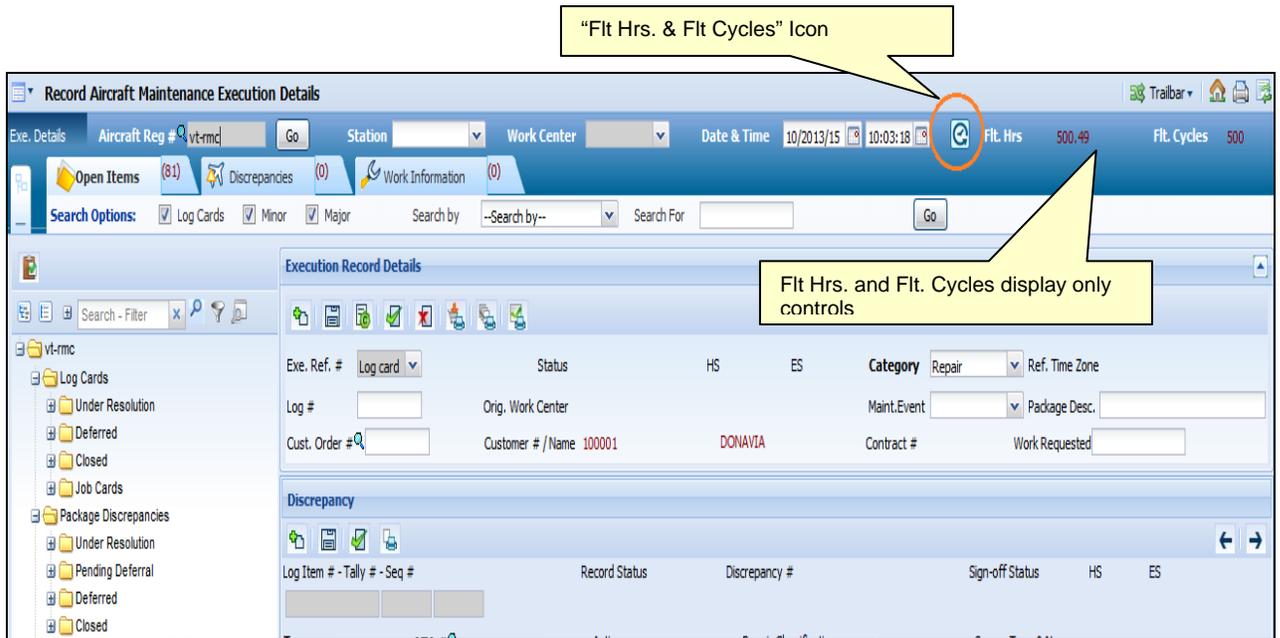


Note: System will also refresh the Flt. Hrs. and Flt. Cycle values on package save, work information details save and discrepancy details save.



Flt. Hrs. and Flt. Cycle values will be retrieved based on base parameter mapping.

Exhibit 1: Record Aircraft Maintenance Execution Details – Web Application

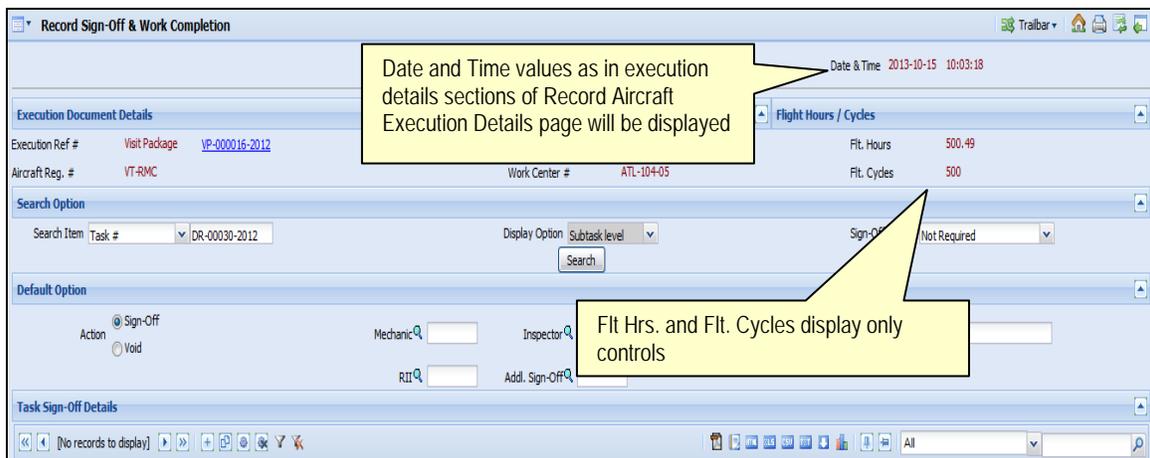


2) Record Sign-Off and Work Completion page

2.1) New display only controls" Flt. Hours. and Flt. Cycles" have been added in "Flight hours/Cycles" section of **Record Sign-Off and Work Completion** page. Refer Exhibit 3.

2.2) Based on the date and time in **Record Aircraft Maintenance Execution Details** page, system will retrieve the Flt. Hours. and Flt. Cycles.

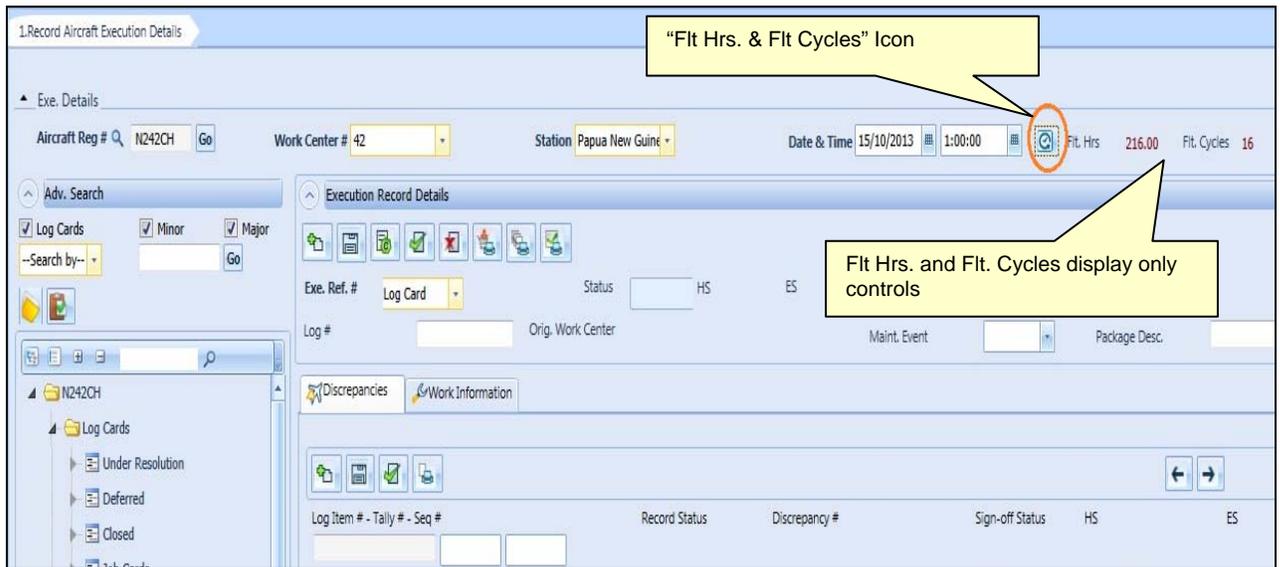
Exhibit-3: Record Sign-Off and Work Completion



3) Record Aircraft Execution Details page: Field Base Operation

3.1) In Field base operations, the system will retrieve the Flt. Hrs. and Flt. Cycle values on screen launch itself , if the offline aircraft, station date & time values are defaulted.

Exhibit-4: Record Aircraft Maintenance Execution Details – Field Base Operation



B. Facilitate auto-issue of parts during attachment onto aircraft

Reference: AHBE-6161

Background

In the **Record Aircraft Maintenance Execution Details** page, attachment of an inventoried item on aircraft is done by the following steps:

1. Creation of Maintenance Material Request
2. Confirmation of Material Issue
3. Attachment of Issued Item onto aircraft

This process requires multiple page visits.

The current enhancement facilitates a single-step process to automatically issue material from inventory while simultaneously performing attachment of a part to an aircraft.

Change Details

- a) A new check box – “Auto Issue” has been added in the Component Replacement section of the **Record Aircraft Maintenance Execution Details** page. (Refer Exhibit-1). It will be checked by default.
- b) During attachment, Auto Issue process will be initiated in which a Material Request document in “Closed” status and a corresponding Material Issue document in “Confirmed” status will be created by system.
- c) Part required for attachment will be issued from the Serviceable Request Warehouse of task / discrepancy execution work center.



Note: The Auto Issue feature is supported only for serialized parts.



The Auto Issue feature currently does not support consignment stock status.

Exhibit 1:

Auto Issue on part attachment

The screenshot shows the 'Component Replacement' form. A callout box points to the 'Auto Issue' checkbox, which is checked. The text in the callout box reads: 'Auto Issue check box will be checked by default. Auto Issue check box will be visible only if Source is "Replace" / "Attach" and Object Type is "Component" / "Other Parts".'

How to Setup?

- a) 'Allow direct part consumption?' option at package type level needs to be enabled in the **Define Process Entities** activity of the **Common Master** business component. (Refer Exhibit-2).
- b) Backflush option needs to be enabled at:
 - i. Work Center level for each part type: **Associate Warehouses** page (Identify Exe. Unit Work Centers activity – Work Center business component) (Refer Exhibit-3)
 - ii. Warehouse level: **Create / Edit Warehouse Information** activity (Storage Administration business component) (Refer Exhibit-4)
 - iii. Part level: **Maintain Planning Information** activity (Part Administration business component) (Exhibit-5)

Exhibit 2:

'Allow Direct Part Consumption?' option at package type level - **Define Process Entities** activity (**Common Master** business component)

The screenshot shows the 'Edit Document Type Attributes' form. A callout box points to the 'Allow Direct Part Consumption?' attribute, which has a value of '1'. The text in the callout box reads: 'Value for option to be set as "1"'

#	Attribute	Permitted Values	Value	Status
42	Sign-off Requirement for Non Routines	Enter "0" for "Not Required", "1" for "Mechanic", "2" for "Inspector", "3" for "Mech. & Insp."	1	Defined
43	Auto Reconciliation of Components	Enter "0" for "Not Required", "1" for "Required - On Task Closure"	0	Defined
44	Retain Context Date within a Package?	Enter "0" for "No", "1" for "Yes"	1	Defined
45	Enable Direct Printing?	Enter "0" for "No", "1" for "Yes"		Defined
46	Mandate completion of related Discrepancies before closure of Inspection Tasks?	Enter "0" for "No", "1" for "Yes"		Defined
47	Mandate Source Document details on Discrepancy reporting?	Enter "0" for "Not Required", "1" for "Required for PREP, MGRP"		Defined
48	Allow Component Replacement transaction for Component Part with Object Type selection other	Enter "0" for "Not Allowed", "1" for "Allowed"	1	Defined
49	Allow Component Replacement transaction for Object Type other than Component with	Enter "0" for "Not Allowed", "1" for "Allowed"	1	Defined
50	Compliance reversal required on task re-opening ?	Enter "0" for "Not Required" and "1" for "Required"	0	Defined
51	Allow Direct Part Consumption?	Enter "0" for "No", "1" for "Yes"	1	Defined

Exhibit 3:

Back Flushable option at Work Center level for each part type - Associate Warehouses
(Identify Exe. Unit Work Centers activity – Work Center business component)



Exhibit-4:

Allow Backflushing option at Warehouse level: **Create / Edit Warehouse Information**
activity (Storage Administration business component)

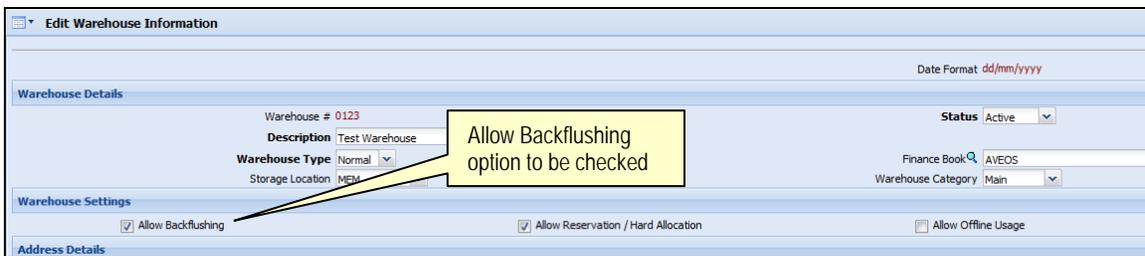
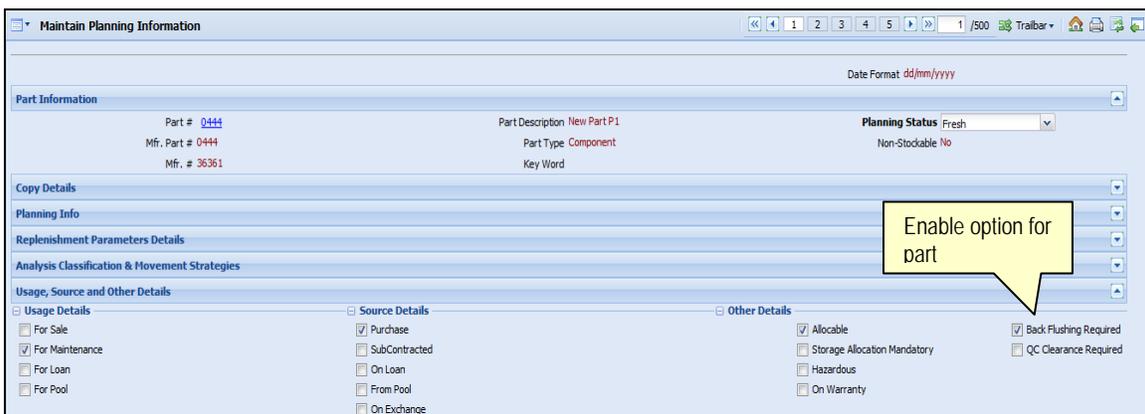


Exhibit-5:

Backflush option at Part level: **Maintain Planning Information** activity (Part Administration business component) (Exhibit-5)



C. Facilitate auto-return of parts on removal from aircraft

Reference: AHBE-6161

Background

Parts removed from aircraft during maintenance are returned to the respective warehouses using the 'Return Parts' link available in the **Record Aircraft Maintenance Execution Details** page.

This process has been eased by facilitating automatic return creation as and when the parts are removed from aircraft.

Change Details

- a) On removal of part from aircraft, the system automatically creates return document based on 'Auto Return of Parts on Removal' option setting at package type level.
- b) Please note that system will not auto-generate maintenance return document when the part being removed from aircraft is routed for repair (Shop Work Order generation scenarios).
- c) Existing option setting - "Auto Return of Parts", to facilitate return creation on package completion has been modified as follows – "Auto Return of Parts (Core & Excess) on package completion". (Refer Exhibits 6 & 7)
- d) Provision to specify Return Classification & Warehouse location to facilitate creation of the return document has also been addressed as part of this enhancement. (Refer Exhibit-8)



Note: Return Warehouse will be defaulted based on removal disposition selection and respective warehouse mapped to task / discrepancy execution work center.

- e) The system mandates Return Classification if the 'Return Valuation based on Return Classification' option is set as "Yes" in **Stock Maintenance** business component.
- f) To create return documents in "Confirmed" status, 'Auto Confirmed-Mnt Return' option needs to be enabled for the Return Warehouse (Refer Exhibit-9). Please note that this option will be listed only if 'Auto Maintenance Return' transaction mapping is set for the login user in **Maintain Numbering Privileges** activity (**Document Numbering Class** business component).



Note: Even though the option is enabled, the system creates maintenance return documents in draft / fresh status if any additional mandatory information is required for return of the part. E.g. Certificate Information, Inspection Information, Hazmat Compliance, Zone / Bin details, etc.

- g) Return Quantity will be set based on removed qty in maintenance return documents during removal of lot / none-controlled parts. If removed quantity value is blank, return quantity will be defaulted as 1.



Note: During Cannibalization, a single return document will be generated (i.e, for the Removed Part).

- h) Default Numbering Type needs to be separately defined for return documents auto generated by the system. The same is to be set against transaction – “Auto Maintenance Return” in **Document Numbering Class** business component. This facilitates numbering of return documents auto generated on - (a) part removal from aircraft & (b) package completion. (Refer Exhibit-10)



Note: Auto return document generation for Repair Order and Scrap note generation scenarios will also be controlled by ‘Auto Return of Parts on Removal’ option setting at package type level.

Exhibit-6:

Auto Return of Parts on Removal option at package type level

The screenshot shows the 'Edit Document Type Attributes' window. At the top, there are dropdowns for 'Document Package Type' and 'Document Type Heavy'. Below this is the 'Attribute List' table. The table has columns for '#', 'Attribute', 'Permitted Values', 'Value', and 'Status'. The attribute 'Auto Return of Parts on Removal' (ID 52) is highlighted, and a callout box indicates that its value should be set to '1'.

#	Attribute	Permitted Values	Value	Status
43	Auto Reconciliation of Components	Enter '0' for 'Not Required', '1' for 'Required - On Task Closure'	1	Defined
44	Retain Context Date within a Package?	Enter '0' for 'No', '1' for 'Yes'	1	Defined
45	Enable Direct Printing?	Enter '0' for 'No', '1' for 'Yes'	0	Defined
46	Mandate completion of related Discrepancies before closure of Inspection Tasks?	Enter '0' for 'No', '1' for 'Yes'	1	Defined
47	Mandate Source Document details on Discrepancy reporting?	Enter '0' for 'Not Required', '1' for 'Required for PIREP, MIREP and Cabin Discrepancies', '2'	0	Defined
48	Allow Component Replacement transaction for Component Part with Object Type selection other than	Enter '0' for 'Not Allowed', '1' for 'Allowed'	1	Defined
49	Allow Component Replacement transaction for Object Type other than Component with availability of	Enter '0' for 'Not Allowed', '1' for 'Allowed'	1	Defined
50	Compliance reversal required on task re-opening ?	Enter '0' for 'Not Required' and '1' for 'Required'	1	Defined
51	Allow Direct Part Consumption?	Enter '0' for 'No', '1' for 'Yes'	1	Defined
52	Auto Return of Parts on Removal	Enter '0' for 'Not Required', '1' for 'Required'	1	Defined

Exhibit-7:

Modification in description of existing process parameter which facilitates auto-return on package completion

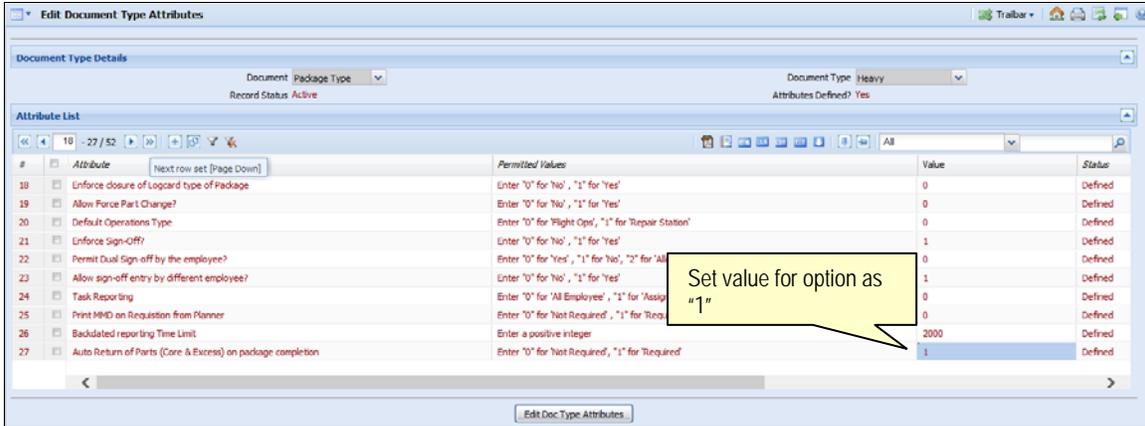


Exhibit-8:

Changes in **Component Replacement** section (Record Aircraft Maintenance Execution Details page)

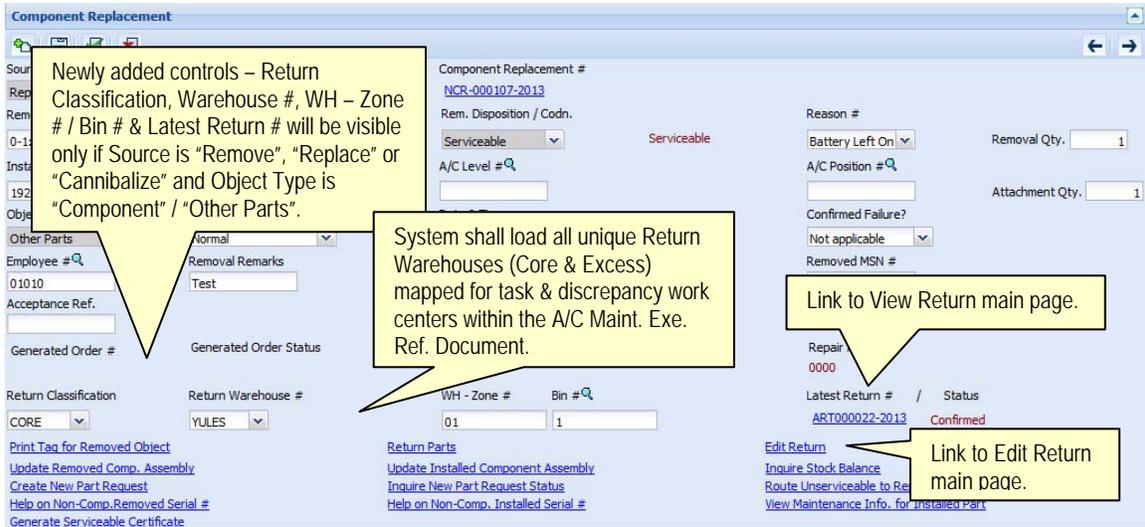


Exhibit-9:

'Auto Confirmed-Mnt Return' option at Warehouse level to facilitate creation of return documents in "Confirmed" status

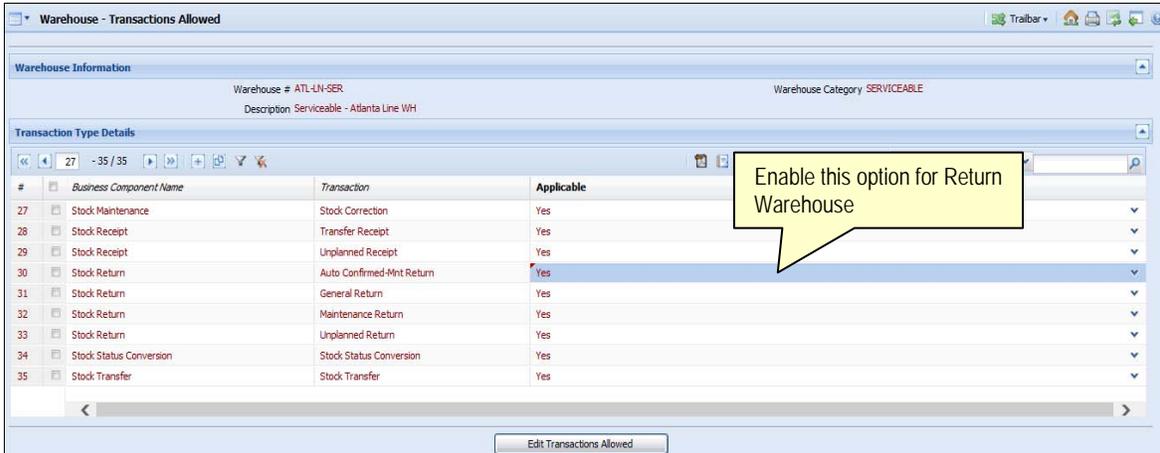
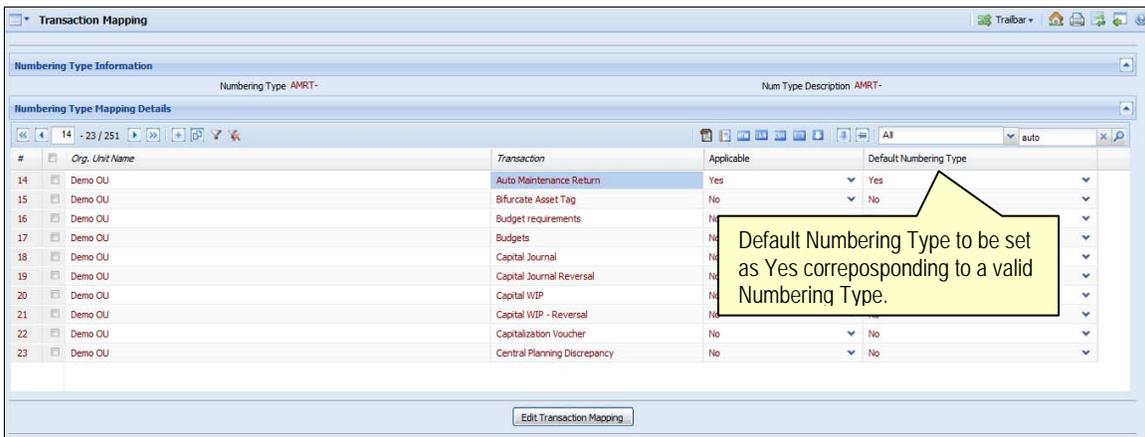


Exhibit-10:

Default Numbering Type - Transaction mapping to facilitate auto generation of maintenance return document



D. Extending of Auto-issue functionality for Non Components

Reference: AHBE-10042

Background

Auto Issue in **Record Aircraft Maintenance Execution Details** screen allows the user to automatically issue parts for component replacement transactions (Attachment / Replacement) without having to raise material request and confirm issue manually.

Change Details

Auto Issue feature was earlier supported only for Serial controlled and Serial-Lot controlled parts. Now it is supported for Lot controlled and None controlled parts.



Note: For Lot controlled parts, if there are multiple lots available within the Serv. Request Warehouse, Auto Issue feature is not supported. Also if the part is available across different zones / bins available within the Serv. Request Warehouse, Auto Issue feature is not supported.

E. Facility to default Record Direct Part Consumption tab when launched from AME based on option

Reference: AHBE-12311

Background

Record Direct Part Consumption tab in the **Record Consumption & Return** screen allows the user to record part consumption against a Task # and Package # without raising a Material Request and confirming the issue manually.

Record Consumption & Return screen can be launched via links provided in the **Record Aircraft Maintenance Execution Details** screen. A new Process Parameter is provided to enable defaulting the **Record Direct Part Consumption** tab on launch of the **Record Consumption & Return** screen when launched from the **Record Aircraft Maintenance Execution Details** screen.

Change Details

Record Consumption & Return screen can be launched from the following locations of the **Record Aircraft Maintenance Execution Details** screen:

1. Links section
2. Work Information tab
3. Discrepancy tab
4. Component Replacement tab
5. Material Request tab

A new process parameter option “**Default Record Direct Part Consumption tab in Record Part Consumption & Return page?**” is available to be set for individual package types in **Define Process Entities**. This option will determine tab defaulting in the **Record Consumption & Return** screen when launched from the **Record Aircraft Maintenance Execution Details** screen.

Exhibit – 1:

Newly added Process Parameter in Define Process Entities

Set Process Parameters				
39	Allow re-opening of completed packages / tasks?	Enter "0" for 'Not Allowed', "1" for 'Allowed'	1	Defined
40	Allow Package execution across multiple primary Work Centers	Enter "0" for 'Not Allowed', "1" for 'Allowed'	0	Defined
41	Allow Closure of Package with Pending Replacements	Enter "0" for 'Not Allowed', "1" for 'Allowed'	0	Defined
42	Allow Reconcile of Parts?	Enter "0" for 'Not Allowed', "1" for 'Allowed for Reconcile Core', "2" for 'Allowed for	3	Defined
43	Auto Inclusion of Incomplete Tasks	Enter "0" for 'Not Required', "1" for 'Required'	0	Defined
44	Auto Inclusion of Overdue Tasks	Enter "0" for 'Not Required', "1" for 'Required'	0	Defined
45	Enable Direct Printing?	Enter "0" for 'No', "1" for 'Yes'	0	Defined
46	Basis for Auto Inclusion of Due Tasks	Enter "0" for 'Not Required', "1" for 'Planned Start Date', "2" for 'Schedule	0	Defined
47	Default Sign-off Requirement for Non Routines	Enter "0" for 'Not Required', "1" for 'Mechanic', "2" for 'Inspector', "3" for 'Mech. &	3	Defined
48	Compliance reversal required on task re-opening ?	Enter "0" for 'Not Required' and "1" for 'Required'	0	Defined
49	Auto Reconciliation of Components	Enter "0" for 'Not Required', "1" for 'Required - On Task Closure'	0	Defined
50	Retain Context Date within a Package?	Enter "0" for 'No', "1" for 'Yes'	0	Defined
51	Auto Short close of Open Material Request	Enter "0" for 'On association of Package', "1" for 'On release of Package'	1	Defined
52	Allow Deferral of Planned Tasks?	Enter "0" for 'No', "1" for 'Yes'	1	Defined
53	Mandate completion of related Discrepancies before closure of Inspection Tasks?	Enter "0" for 'No', "1" for 'Yes'	1	Defined
54	Allow Component Replacement transaction for Component Part with Object Type selection	Enter "0" for 'Not Allowed', "1" for 'Allowed'	1	Defined
55	Allow Component Replacement transaction for Object Type other than Component with	Enter "0" for 'Not Allowed', "1" for 'Allowed'	1	Defined
56	Allow direct part consumption ?	Enter "0" for 'No', "1" for 'Yes'	1	Defined
57	Default Record Direct Part Consumption tab in Record Part Consumption & Return page?	Enter "0" for 'No' and "1" for 'Yes'	1	Defined
58	Auto Return of Parts on Removal	Enter "0" for 'Not Required' and "1" for 'Required'	0	Defined

If this process parameter option is set as 'No', the **Return Unconsumed Parts** tab is defaulted and the Display Option combo will be defaulted with 'All Pending Return', when the **Record Consumption & Return** screen is launched from the **Record Aircraft Maintenance Execution Details** screen. This is the default option.

If set as 'Yes', the **Record Direct Part Consumption** tab is defaulted and the Display Option combo will be defaulted with 'All Parts', when the **Record Consumption & Return** screen is launched from the **Record Aircraft Maintenance Execution Details** screen. 'Yes' can be set only if **Allow Direct Part Consumption** option is enabled for the package type.

 *Note: In AME, if MR # reference is available when the Record Consumption & Return link is clicked from the MR tab, then the Return Unconsumed Parts tab is always defaulted regardless of the option set by the user.*

On launch of the **Record Part Consumption & Return** screen from the **Record Aircraft Maintenance Execution Details** screen, the following will be passed to the **Record Direct Part Consumption** tab multiline if they are available (only if the **Record Direct Part Consumption** tab is defaulted on launch):

1. A/C Reg #.
2. Package #. (Exe. Ref. #)
3. Task # / Discrepancy #.
4. Task / Discrepancy Description.
5. Tally #.
6. Warehouse #.

The Warehouse # defaulted in the multiline is the Serviceable Request Warehouse # defined for the Work Center assigned for the Package # / Task #, for the part type Component, in the **Associate Warehouses** screen (via **Identify Exe. Unit Work Centers**).

Exhibit – 2:

Defaulted controls in the multiline on launch of the page from AME

Record Part Consumption & Return

Search Criteria

Display Option: All Parts
 Task # / Description: 123/20
 Search On: [Dropdown]

Aircraft Reg. #: VT-ABC
 Part # / Description: 015T1507-642
 Material Request #: [Dropdown]

Execution Ref. # / Description: VPP-000076-20
 Customer # / Order #: [Dropdown]
 Requested Work Center #: [Dropdown]

Return Unconsumed Parts | Return Removed Cores | **Record Direct Part Consumption**

Record Consumption Details

#	Aircraft Reg. #	Exe. Ref. #	Tally #	Task # / Disc. #	Part #	Serial #	Lot #	Used Qty.	Warehouse #	Zone #	Bin #	Stock Status	Condition	Remarks
1	VT-ABC	VPP-000076-201	1	123/20					0123					
2														

Confirm Consumption | Record Part Consumption

F. Enhancement for Record Status & Tree Loading changes for non-configuration tracked parts

Reference: AHBE-8377

Background

Ramco Aviation Solution supports component replacement transactions for non-configuration tracked parts. With Object Type set as "Other Parts" in **Component Replacement** section of **Record Aircraft Maintenance Execution** screen, user can install / remove / replace parts entering position / level code details. For such non-component replacement transactions, on invoke of "Confirm", Non-Component Replacement number gets generated, status updates to "Removed / Replaced / Error-Removed / Error-Replaced" and Component replacement record gets displayed in "Only installs / Replaced / Only Removals" folder in **Component Replacement Tree**.

Change Details

With this enhancement, when user performs a non-component replacement with Object Type as "Other Parts", following changes will take place:

- a) Upon Save of component replacement details, a component replacement record will be generated in "Pending Actions Item" folder of **Component Replacement** tree. Status of component replacement record will be blank.
- b) Upon Confirmation of the component replacement record, it will be moved to "Only installs / Replaced / Only Removals" folder of component replacement tree. Status will be updated as Removed / Replaced based on source type selection.

Exhibit-1:

On save of component replacement details with Source as "Replace" and Object Type as "Other Parts"

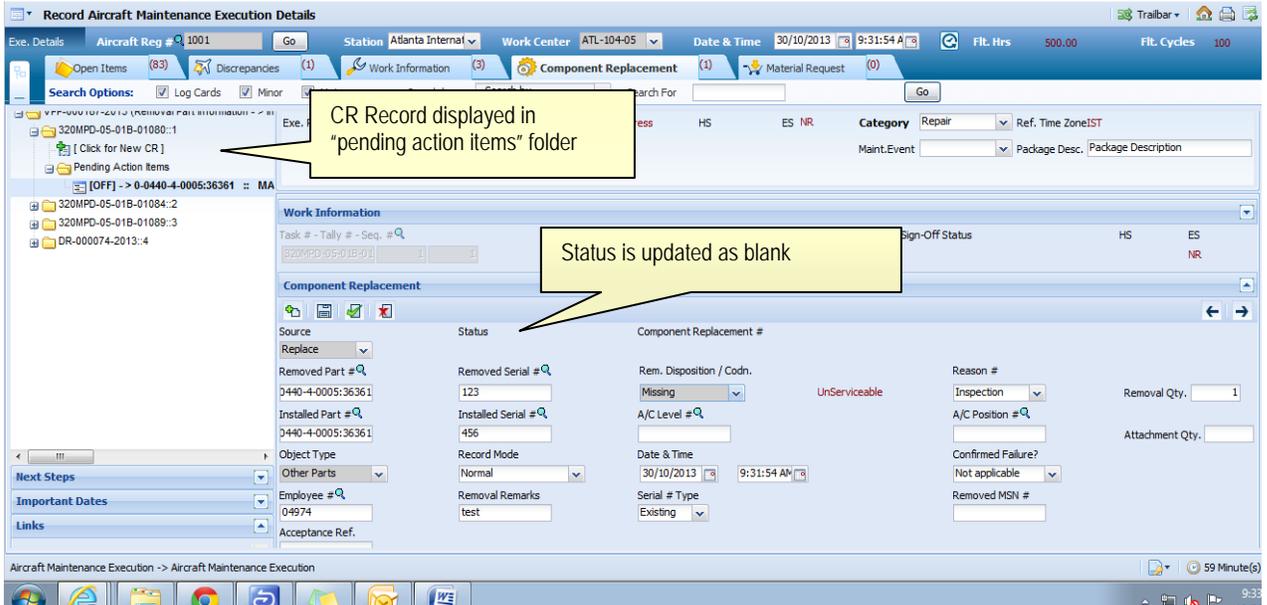
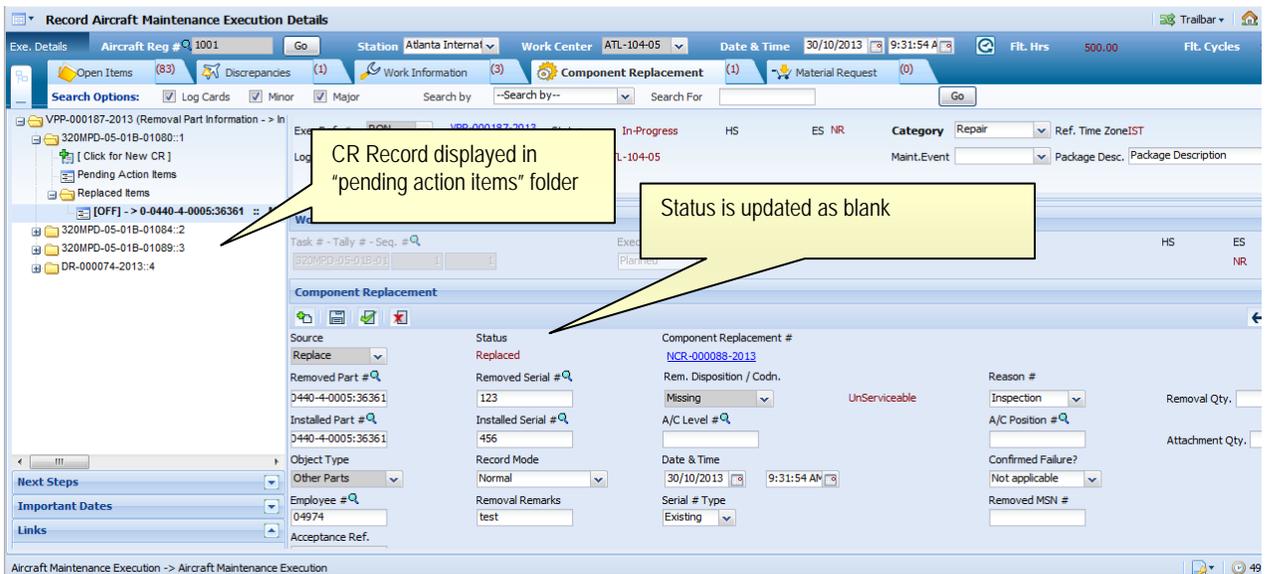


Exhibit 2:

On confirmation of component replacement details with Source as "Replace" and Object Type as "Other Parts"



G. Facility to update error log for component replacement transactions where user provides all valid details but selects Force Part Change option

Reference: AHBD-791

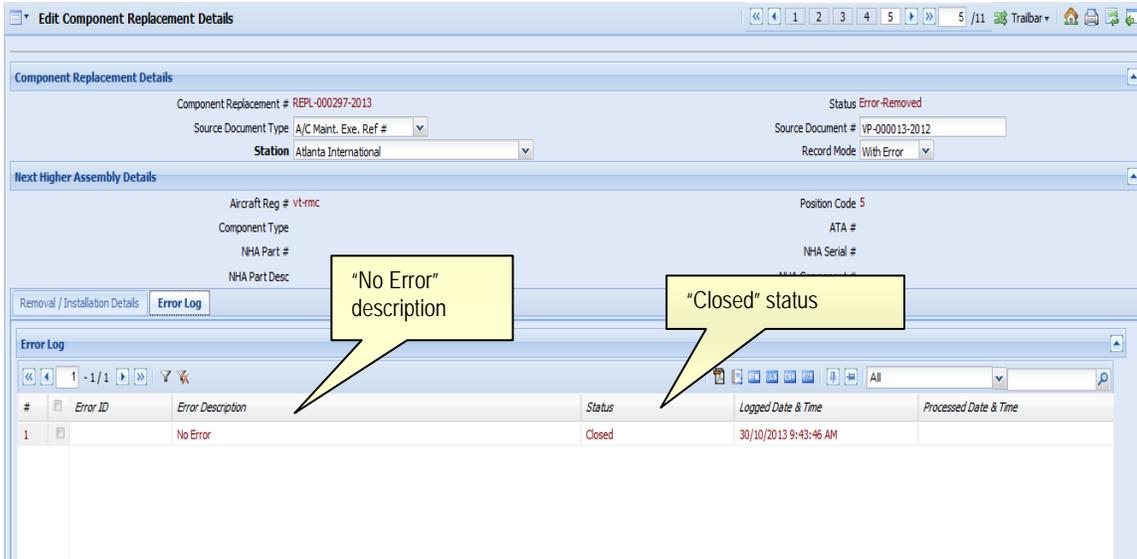
Background

Ramco Aviation Solution supports execution of component replacements through **Component Replacement** tab provided in the **Record Aircraft Execution Details** screen in the **Record Aircraft Execution Details** activity of the **Aircraft Maintenance Execution** business component. To perform a component replacement, user provides the following information in the **Component Replacement** tab: Source Type, Removed / Installed Part #, Removed / Installed Serial #, object type, Record Mode, Date and Time and other details based on values provided in the above mentioned controls. The part and serial information will be validated on save of component replacement details. In situations when the correct part / serial information is not available, the user can provide invalid part / serial detail, select Record Mode as "Force Part Change" and continue with the component replacement transaction. In this case, relevant error description will be saved in the error log of the corresponding component replacement record with status as "Pending". The user can refer the error log at a later point of time, and provide valid details in **Edit Component Replacement Details** screen, in which case status of the error ID will be changed to "Close". In scenarios when user enters valid part serial details with the Record Mode as "Force Part Change", the error description for the component replacement record will be left blank.

Change Details

With this enhancement, if user confirms a component replacement with valid part / serial details and Record Mode as "Force Part Change", error description for the corresponding component replacement record will be updated as "No Errors" with status as "Closed", if system has not detected any errors in the component replacement transaction.

Exhibit-1: Error log description and Status for the component replacement transaction with Record Mode as “Force Part Change” and no errors.



H. Facility to Reverse the Compliance in Record Aircraft Maintenance Execution

Reference: AHBD-6604, AHBD-6566

Background

Currently in Ramco Aviation Solution, the latest Compliance details will not be reverted though the Execution Status of task is changed from “Completed” to “In progress” in the **Record Aircraft Maintenance Execution Details** interface by users provided the process parameter “Allow re-opening of completed packages / tasks?” is set as “Allowed”

With the introduction of this new feature, on changing the Execution Status of a task from “Completed” to “In progress” (or) while invoking the start clock for completed task in the latest execution reference document from “Record Aircraft Maintenance Execution” page, the latest compliance details of the task will be reverted to its previous schedule details. This applies for Aircraft Maintenance and Component Maintenance Program tasks also.

Change Details

To facilitate the above change, a process parameter "Compliance reversal required on task re-opening?" is added for the Entity “Package Type” in the **Define Process Entities** screen.

If the process parameter "Compliance reversal required on task re- opening?" is set as “Required” for the package, users will be allowed to reverse the latest Compliance of task from the **Record Aircraft Maintenance Execution** screen either by changing the Execution Status of a task from “Completed” to “In progress” or by invoking the start clock for completed task. The latest compliance details of the task will be deleted and will revert to its previous compliance schedules in program.

 *Note: Reference Screen shot enclosed.*

The deleted compliance schedule details can be viewed in the **Track Maintenance Compliance History** screen only on using the “View Correction” option in the “Search On” drop-down list box.

This applies for Aircraft Maintenance Program and Component Maintenance Program tasks also.

Reverse Compliance of the task will not be allowed for the scenarios mentioned below:

- Compliance effecting Configuration change (Engineering order task).
- The task opted in the **Aircraft Maintenance Execution** screen is not the latest complied instance.

- Tasks of "Initiate Records Follow-up" relationship with follow-up action "Closed".
- Latest instance of a task is allocated to a package.
- Schedule detail of a task changed from "Date Based" to "Usage Based" and vice versa after latest Compliance.
- Parameter addition or deletion to a task in program after latest compliance.
- Short-term Escalation exists after latest compliance.
- Task opted is of Job Type: Component Replacement.
- Parameter recording exists for a task.

Note: The above changes will also apply for the "Work Monitoring and Control" activity.

Exhibit: 1

Track Maintenance Compliance History page.

The screenshot shows the 'Track Maintenance Compliance History' interface. At the top, there is a search criteria section with the following fields: 'Search on' (set to 'View Corrections'), 'Compliance Date: From / To' (01/01/1900 to 30/01/2013), 'Applicability', 'Maint. Object', 'Additional Search on Execution Doc. #' (010022), and 'Eng. Schedule Type'. A 'Search' button is located below these fields. Below the search criteria is a 'Compliance Details' section with a table of results. The table has columns for '#', 'Aircraft Reg #', 'Part #', 'Serial #', 'Task #', 'Task', 'Task Description', 'Job Type', 'Parameter', 'Compliance Mode', and 'Due Date'. The first three rows show data for aircraft CRJ 470-4, part 0-1450PSI, and serial 54545446, with task 00-00-38 and description 'Inspection of windshi'. The compliance modes are DELETED, DELETED, and DIRECT, with a due date of 22/08/2015 for all. The fourth row is empty.

#	Aircraft Reg #	Part #	Serial #	Task #	Task	Task Description	Job Type	Parameter	Compliance Mode	Due Date
1	CRJ 470-4	0-1450PSI	54545446	00-00-38		Inspection of windshi	On Wing	Calendar	DELETED	22/08/2015
2	CRJ 470-4	0-1450PSI	54545446	00-00-38		Inspection of windshi	On Wing	Calendar	DELETED	22/08/2015
3	CRJ 470-4	0-1450PSI	54545446	00-00-38		Inspection of windshi	On Wing	Calendar	DIRECT	22/08/2015
4										

I. Facility to support package print if special characters are mentioned in task description / planning comments

Reference: AHBE-5080

Background

In Ramco Aviation solution, **Plan Aircraft Maintenance** and **Record Aircraft Maintenance Execution Details** activities allow planners and mechanics to print packages. Task cards will be printed for the package along with documents associated with the individual tasks.

Package printing feature has been enhanced so as to support printing of task cards with special characters in task description and planning comments containing special characters.

Change Details

With the introduction of this change, when the user invokes Print All / Print Selected icons from **Plan Aircraft Maintenance** or **Record Aircraft Maintenance Execution Details** pages, the system shall print all package related info (including task cards) even if special characters are mentioned in task description / planning comments.

J. Part tag report enhancement

Reference: AHBE-8169

Background

Part tags help identify serviceability & airworthiness of parts. Ramco's M&E system facilitates printing of part tag reports from various user interfaces available in application. Certain operators require the part condition in part tag to be printed as "As Removed" for serviceable parts removed from aircraft. Such parts can be tagged as serviceable only if certified by a repair station. To facilitate the same, Ramco's part tag print capability has been enhanced so as to print part tag as "As Removed" based on an option setting.

Change Details

New option setting – "Print tag as 'As Removed'?" is available for each Disposition Code in **Define Process Entities** (Common Master Business component). This option can be enabled only if Applicable Document for selected disposition code is set as Aircraft Maint. Exe. Ref. #. (Refer Exhibit-1)

Exhibit 1: Disposition Code – Process Parameter setting (Define Process Entities)

#	Process Parameter	Permitted Values	Value	Status	Error Message
1	Applicable Document	Enter '0' for 'Shop Work Order', '1' for 'Aircraft Maint. Exec. Ref #', '2' for 'Both'	1	Defined	
2	Initial Disposition ?	Enter '0' for 'No', '1' for 'Yes'	1	Defined	
3	Final Disposition ?	Enter '0' for 'No', '1' for 'Yes'	1	Defined	
4	Removed Core Condition?	Enter '0' for 'Phased Out', '1' for 'Unserviceable', '2' for 'Serviceable'	2	Defined	
5	Recommendation for Phase Out	Enter '0' for 'No', '1' for 'Yes'	0	Defined	
6	Return Option for Sub-Assembly?	Enter '0' for 'Org. Work Center', '1' for 'Top Assembly Work Center', '2'	4	Defined	
7	Return Option for Main Core?	Enter '0' for 'Warehouse', '1' for 'Not Applicable'	0	Defined	
8	Create Order on disposition ?	Enter '0' for 'Not Required', '1' for 'Execution Order'.	0	Defined	
9	Replenishment of Core ?	Enter '0' for 'Manual', '1' for 'Auto'	0	Defined	
10	MR Priority	Defined values from Logistics Common Master	NRM	Defined	
11	Routing Slip Print ?	Enter '0' for 'Manual', '1' for 'Auto', '2' for 'Not Applicable'	0	Defined	
12	Salvage Action - Internal Stock	Enter '0' for 'Scrap at Work Center', '1' for 'Return to Warehouse', '2' for 'Not	2	Defined	
13	Salvage Action - External Stock	Enter '0' for 'Scrap at Work Center', '1' for 'Return to Warehouse'		Defined	
14	Standard Exchange?	Enter '0' for 'No', '1' for 'Flat Exchange', '2' for 'Exchange with Repair'		Defined	
15	Reason for Standard Flat Exchange	Enter a Valid Reason Code defined in 'Manage Reason for Exchange / Swaps' in the		Defined	
16	Default Disposition code for Auto generated orders?	Enter '0' for 'No', '1' for 'Yes'	0	Defined	
17	Reason for Standard Exchange with Repair	Enter a Valid Reason Code defined in 'Manage Reason for Exchange / Swaps' in the		Not Defined	
18	Issue Certificates - Part Tag Report?	Enter '0' for 'Marked for Retirement' items', '1' for 'Scrapped Parts', '2'	1	Defined	
19	Auto Pre-Closure of work orders on part phasing out?	Enter '0' for 'No', '1' for 'Yes'	0	Defined	
20	Allow Order Completion / Closure ?	Enter '0' for 'Not Allowed', '1' for 'Allowed'.	1	Defined	
21	Print tag as 'As Removed'?	Enter '0' for 'No', '1' for 'Yes'	1	Defined	

System will print tag as "As Removed" from the following pages if above mentioned process parameter is enabled for part removal disposition code:

- (a) Record Aircraft Maintenance Execution Details
- (b) View A/C Maint. Exe. Ref. #
- (c) View Component Replacement Details (if Source Document is A/C Maint. Exe. Ref. #)

Exhibit-2: Part Tag report sample

		ABC COMPANY LIMITED 64, Sardar Patel Road, Taramani, Chennai, TN.,, Chennai, Tamilnadu, India, 600000		
Form #				
<div style="border: 1px solid black; border-radius: 15px; padding: 5px; display: inline-block;">As Removed</div> Component				
COMPONENT #		TSN / CSN Not Avlb./Not Avlb.	TSO / CSO Not Avlb./Not Avlb.	TSI / CSI Not Avlb./Not Avlb.
PART # 0-0110-3-0442:	SERIAL # / LOT v1234	PART DESCRIPTION ACOUSTICAL AFT Y PANEL		OBJECT TYPE Others
REF. DOC TYPE A/C Maint. Exe. Ref #		REF. DOC # HP000287-2013		CURRENT CONDITION Serviceable
REMOVAL DETAILS				
COMP. REPLACE #	REMOVED BY	REMOVAL TYPE	REMOVAL CONDITION	REMOVAL DATE & TIME

Exhibit-3: Part tag print behaviour

Print From	Print Tag as 'As Removed' option	Removal Details Available in tag?	Removed Condition	Current Condition	Tag Condition
Record Aircraft Maintenance Execution Details	Enabled	Yes	<Removed Condition>	<Current Condition>	As Removed
View A/C Maint. Exe. Ref. #	Enabled	Yes	<Removed Condition>	<Current Condition>	As Removed
View Component Replacement Details (if Source is AME)	Enabled	Yes	<Removed Condition>	<Current Condition>	As Removed
Record Aircraft Maintenance Execution Details	Disabled	Yes	<Removed Condition>	<Current Condition>	<Removed Condition>
View A/C Maint. Exe. Ref. #	Disabled	Yes	<Removed Condition>	<Current Condition>	<Removed Condition>
View Component Replacement Details (if Source is AME)	Disabled	Yes	<Removed Condition>	<Current Condition>	<Removed Condition>
Any other page (eg: Inquire Stock Availability)	NA	No	Blank	<Current Condition>	<Current Condition>

K. Displaying Owing Agency Logo in the Tag report

Reference: AHBE-11709

Background

Owning Agency Name and Logo is now printed in the part tag report.

Change Details

A new section is added in the Tag report below the **Inspection Remarks** section. The **Owning Agency** section is displayed only when the part is either a Supplier owned part or a Customer owned part. In both cases, the name of the owning agency is printed along with their logo. If a logo does not exist, only the name of the owning agency is printed in this section.

The Owning Agency section will be visible in the tag report only if it is printed from the following screens:

1. **Print Tag for Removed Object** link in **Record Aircraft Maintenance Execution Details** screen.
2. **Print Tag to Removed Object** link in **View A/C Maint. Exe. Ref #** screen

The logos have to be saved in the same location as the other report logos (...Ramco DecisionWorks\DW\DW_REFACATOR\ReportFiles) in the below mentioned format.

For a supplier logo: **SUP_CompanyCode_OwningAgencyNo.bmp**

Example: SUP_RAMSYS_0123.bmp

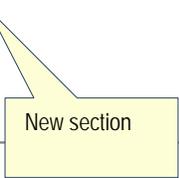
For a customer logo: **CUS_CompanyCode_OwningAgencyNo.bmp**

Example: CUS_RAMSYS_10001.bmp

 *Note: For an internally owned part, this section will not be printed.*

Exhibit – 1:

Owning Agency Section in the bottom of a sample Tag report

			Jet Airways (India) Limited Siroya Centre, Sahar Airport Road, Andheri (East), Mumbai, Maharashtra, India, 400099		
Form # *0-0440-4-0011:36361:DESIRE 6*					
Serviceable			Component		
COMPONENT # COMP-003509		TSN / CSN 0.00/0	TSO / CSO Not Avlb./Not Avlb.	TSI / CSI Not Avlb./Not Avlb.	
PART # 0-0440-4-0011:	SERIAL # / LOT # / DESIRE 6	PART DESCRIPTION MEAL TROLLEY		OBJECT TYPE Component	
REF. DOC TYPE A/C Maint. Exe. Ref #		REF. DOC # VP-000062-2013		CURRENT CONDITION Serviceable	
REMOVAL DETAILS					
COMP. REPLACE # REPL-000307-2014	REMOVED BY 01010	REMOVAL TYPE Scheduled	REMOVAL CONDITION Serviceable	REMOVAL DATE & TIME 10/02/2014 12:20:16	
AIRCRAFT # N1234	TOTAL FH / FC 7.10 / 3	NHA PART #	NHA SERIAL #	BASE ATL	POSITION POS2
STOCK PBH	SUPPLIER		CERTIFICATE #		EXPIRY DATE
REMOVAL REASON Remarks AME CR: removed Discrepancy: new discrepancy			SIGNATURE / A&P #		
INSPECTION REMARKS removed					
OWNING AGENCY		Ramco Systems 			
					
Generated On : 03/03/2014 5:37:53 PM					

L. Smart Search feature

Reference: AHBE-9555

Background

Smart search feature recently introduced in Ramco's Aviation Suite (as known as REAP Search – Ramco Enterprise Application Search), facilitates quick data entry by the end user.

To enhance usability, certain commonly used data fields in **Record Aircraft Maintenance Execution Details** page, have been enabled with this smart search feature.

Change Details

Smart Search has been enabled for the below data fields in **Record Aircraft Maintenance Execution Details** page. (Refer Exhibit-1)

Discrepancy Tab:

1. ATA #
2. Deferral Item #
3. Part # (Component Details Section)

Work Information Tab:

1. ATA #
2. Task #
3. Part # (Component Details Section)

Component Replacement Tab:

1. Removed Part #
2. Installed Part #

Material Request Tab:

1. Part #
2. Substitute Part #



Note: Prior to usage of this feature, please ensure that REAP (Ramco Enterprise Application) search installation is done appropriately. Refer installation manual – "Trn-Bsg-Reaps-Installation.pdf" for further info.

Exhibit 1: Smart Search feature for Task # field in Work Information tab

The screenshot displays the 'Record Aircraft Maintenance Execution Details' application. The 'Work Information' tab is active, showing a search overlay for the 'Task #' field. The search results are as follows:

ATA No.	ATA Description
4900	4900
4917	4917
4920	4920
4921	4921
4926	4926
4940	4940
4980	4980
4990	4990
49-50	APU AIR
49-90	APU OIL
49-11	APU COWLING

The interface also includes sections for 'Execution Record Details' (with fields for Exe. Ref. #, Log #, and Orig. Work Center) and 'Work Information' (with fields for Task #, Task Type, and Task Description). A 'Smart Search' feature is highlighted, showing a list of tasks that match the search criteria.

WHAT'S NEW IN FLIGHT LOG?

A. Flight Summary Report

Reference: AHBE-9917

Background

Flight summary report provides the user with a distilled view of the Leg / Summary level parameters that are mapped to the aircraft and attached engines, including the calculated parameters. It also enables the user to view the details of the parameter updates with respect to the journey logs and manual parameter value entries without traversing to the respective screens in the application.

Change Details

A new activity, **Generate Flight Summary Report**, has been added in the Flight Log component. The following entry screen is launched on click of the activity.

The screenshot displays the 'Generate Flight Summary Report' entry screen within the Proto Viewer application. The interface includes a search criteria section with the following fields:

- Aircraft Reg #**: A text input field with a search icon.
- Flight Category**: A dropdown menu.
- From / To Date**: A date range selector.
- Journey Log Category**: A dropdown menu.
- Display Option**: A dropdown menu currently set to 'All'.

Below the search criteria, there is a button labeled 'Generate Flight Summary Report'. The top of the screen shows the business process name 'Generate Flight Summary Report', the user 'PROTOUSER', and the project 'BASE'. The bottom status bar indicates the current time as 1:11 PM and the duration as 119 Minute(s).

The user must provide the Aircraft Registration # and date range for which the report has to be launched. The user will also have the ability to launch report based on the following filters.

- a) **Display Option:** The user can generate report for the following display options:
 - All – All the journey logs and the manual parameter update entries will be listed with the parameter details.
 - JL Entry - All the journey logs will be listed with the parameter details.
 - Zero JL Entry – Only those JLs which have flying hours as zero will be listed with the parameter details.
 - Manual Entry – Only the manual parameter update entries will be listed.

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b) **Flight Category** – User can filter the journey logs with only the specified flight category.

c) **Journey Log Category** - User can filter the journey logs with only the specified journey log category.

On click of **Generate Flight Summary Report**, the report is generated and will be available for the user in excel format.

LOGO	FLIGHT SUMMARY REPORT															ADDRESS				
AIRCRAFT	MODEL	TSFR	TSSR	LIFTS	HLT	RHC	RHH	ES	Hc	Hf	LAST JL #	LAST JL DATE	LAST LOG #	PERIOD						
PKFUE	ASISBDA	5200.00	3900	1900	1230.00	1900	120.00	3500	3416.00	3500.00	JL-0990-2103	24-10-2013	277	05-JAN-2015:08:30-JAN-2015						
DATE	LOG#	JL#/MP/U	FLIGHT CAT.	JL CAT.	FX	LC	LIFTS	HLT	RHC	RHH	ES	Hc	Hf	TSFR	TSSR	LIFTS	HLT	RHC	RHH	
20-Jan-2015	NA	MP10-0103-2103	NA	NA	1.50	0	0	0	0	0	0	0.00	0.00	3,210.00	2139	725	537	123.60	1540	
20-Jan-2015	029	JL-100106-2103	CHARTER	OUST-0101	3.00	2	1	1.0	2	1.0	2	2.00	2.00	3,210.00	2139	725	537	123.60	1540	
20-Jan-2015	029	JL-100103-2103	CHARTER	OUST-0101	2.50	1	1	1.0	3	1.0	2	1.00	1.00	3,277.00	2137	724	536	123.60	1541	
21-Jan-2015	029	JL-100106-2103	CHARTER	OUST-0101	2.60	1	1	1.0	2	1.0	3	1.00	1.00	3,274.50	2138	723	535	123.60	1540	1747
27-Jan-2015	027	JL-100103-2103	CHARTER	OUST-0101	2.50	1	1	1.0	1	1.0	2	1.00	1.00	3,271.90	2135	722	534	123.60	1539	1744
21-Jan-2015	025	JL-100106-2103	CHARTER	OUST-0101	3.00	1	1	2.0	3	2.0	2	1.00	1.00	3,249.00	2134	721	533	123.60	1539	1742
20-Jan-2015	025	JL-100102-2103	CHARTER	OUST-0101	4.00	2	0	0.0	0	0.0	1	2.00	2.00	3,246.00	2133	720	531	123.60	1537	1740
20-Jan-2015	024	JL-100107-2103	CHARTER	OUST-0101	5.00	2	0	1.0	0	1.0	3	2.00	2.00	3,242.00	2131	719	531	123.50	1535	1739
21-Jan-2015	023	JL-100107-2103	CHARTER	OUST-0101	3.00	2	2	2.0	2	2.0	2	2.00	2.00	3,257.10	2128	720	530	123.50	1532	1736
22-Jan-2015	022	JL-100106-2103	CHARTER	OUST-0101	4.00	1	0	0.0	0	0.0	1	1.00	1.00	3,249.00	2127	719	529	123.50	1530	1734
21-Jan-2015	021	JL-100106-2103	CHARTER	OUST-0101	1.50	1	0	0.0	0	0.0	1	1.00	1.00	3,245.00	2126	718	529	123.50	1529	1733
20-Jan-2015	020	JL-100106-2103	CHARTER	OUST-0101	3.40	2	1	1.0	2	1.0	1	2.00	2.00	3,244.30	2125	717	529	123.50	1529	1732
19-Jan-2015	019	JL-100107-2103	CHARTER	OUST-0102	2.60	1	1	1.0	2	1.0	2	1.00	1.00	3,240.40	2123	717	527	123.50	1526	1731
19-Jan-2015	019	JL-100103-2103	CHARTER	OUST-0102	1.50	1	1	1.0	2	1.0	2	1.00	1.00	3,237.50	2122	716	526	123.50	1525	1729
17-Jan-2015	017	JL-100106-2103	CHARTER	OUST-0102	3.70	2	1	2.0	1	2.0	1	2.00	2.00	3,235.60	2121	715	525	123.50	1524	1727
16-Jan-2015	016	JL-100104-2103	CHARTER	OUST-0102	4.00	2	2	2.0	2	2.0	4	2.00	2.00	3,231.90	2119	714	523	123.50	1522	1726
15-Jan-2015	015	JL-100104-2103	CHARTER	OUST-0102	0.00	0	0	0.0	0	0.0	0	0.00	0.00	3,233.10	2117	712	523	123.50	1519	1722
14-Jan-2015	014	JL-100104-2103	CHARTER	OUST-0102	1.00	1	1	1.0	1	1.0	2	1.00	1.00	3,237.10	2117	712	523	123.50	1519	1722
12-Jan-2015	012	JL-100104-2103	CHARTER	OUST-0102	1.50	1	1	1.0	2	1.0	2	1.00	1.00	3,235.40	2116	711	520	123.50	1519	1720
12-Jan-2015	012	JL-100103-2103	CHARTER	OUST-0102	1.50	1	1	1.0	2	1.0	2	2.00	2.00	3,232.70	2115	710	519	123.00	1517	1719
11-Jan-2015	011	JL-100103-2103	CHARTER	OUST-0102	0.00	0	0	0.0	0	0.0	0	0.00	0.00	3,239.90	2113	709	519	123.00	1515	1716
10-Jan-2015	010	JL-100103-2103	CHARTER	OUST-0102	1.00	1	1	1.0	2	1.0	2	1.00	1.00	3,239.90	2113	709	519	123.00	1515	1716
09-Jan-2015	009	JL-100102-2103	CHARTER	OUST-0102	1.00	1	1	1.0	2	1.0	2	1.00	1.00	3,239.40	2112	709	517	123.00	1514	1714
09-Jan-2015	009	JL-100101-2103	CHARTER	OUST-0102	1.00	1	1	1.0	2	1.0	1	1.00	1.00	3,236.60	2111	706	516	123.00	1512	1712
07-Jan-2015	007	JL-100102-2103	CHARTER	OUST-0102	1.50	1	1	1.0	1	1.0	2	1.00	1.00	3,237.50	2110	705	515	123.00	1511	1711
06-Jan-2015	006	JL-100101-2103	CHARTER	OUST-0102	2.70	2	1	1.0	1	1.0	2	2.00	2.00	3,236.00	2109	704	514	123.00	1509	1709
05-Jan-2015	005	JL-100106-2103	CHARTER	OUST-0101	3.00	2	1	1.0	1	1.0	2	2.00	2.00	3,235.30	2107	703	512	123.00	1507	1707
04-Jan-2015	004	JL-100106-2103	CHARTER	OUST-0101	3.00	0	0	0.0	0	0.0	0	0.00	0.00	3,230.30	2105	702	512	123.00	1505	1705
02-Jan-2015	002	JL-100105-2103	CHARTER	OUST-0101	3.00	2	0	0.0	0	0.0	2	2.00	2.00	3,230.30	2105	702	512	123.00	1505	1705
02-Jan-2015	002	JL-100102-2103	CHARTER	OUST-0101	5.00	3	2	2.0	2	2.0	3	3.00	3.00	3,247.30	2103	702	512	123.00	1503	1703
01-Jan-2015	001	JL-100101-2103	CHARTER	OUST-0101	0.00	0	0	0.0	0	0.0	0	0.00	0.00	3,241.50	2100	700	500	123.00	1500	1700
		TOTAL		20 JL#S	66.0	39	44	25	39	37	51	39	39							

Flight Summary Report needs to consider and display the parameters in the following order,

Flight Hours, Flying Cycle/Landing Cycle, A/C Leg, A/C Summary, A/C Calculated, ENG-leg, ENG-Summary, ENG-Calculated.

1. Flight Hours - The parameter Flight Hours mapped as the base parameter for the aircraft.
2. Flying Cycle/Landing Cycle - The parameter which is mapped as base parameter should be displayed. If both are mapped, both should be displayed.
3. A/C Leg - Those parameters which are mapped in the **Maintain Flight Log parameters** for which the position code is empty.
4. A/C Summary - Those parameters for which the Parameter source is mentioned as "Flight Log" in consumption & range parameters.
5. A/C Calculated - Those parameters for which the Parameter source is mentioned as "Calculated" in consumption & range parameters. If the parameter is captured in Journey Log, the same should not be duplicated.

6. ENG-leg - Those parameters which are mapped in the **Maintain Flight Log parameters** for which the position code is given.
7. ENG-Summary - Those parameters of the respective engines for which the Parameter source is mentioned as "Flight Log" in consumption & range parameters.
8. ENG-Calculated - Those parameters of the respective engines for which the Parameter source is mentioned as "Calculated" in consumption & range parameters. If the parameter is captured in Journey Log, the same should not be duplicated.

Report Layout:

The flight summary report has the following sections:

1. Report Header – This section will display the company logo, report name and the company address.

LOGO	FLIGHT SUMMARY REPORT	ADDRESS
------	-----------------------	---------

2. Parameter Total Header – This section will display the totals of all the parameters applicable for the report and the details of the last approved journey log for the aircraft. The date range for report is also displayed.

AIRCRAFT	MODEL	TTSN	TCSN	LIFTS	HLT	RHC	RHH	ES (7200-ENG #1)	Ng (7200-ENG #1)	Nf (7200-ENG #1)	LAST JL #	LAST JL DATE	LAST LOG #	PERIOD
PK-FUE	AS350BA	5,200.00	3900	1900	1,230.00	1100	120.33	3500	3610.00	3500.00	JL-0998-2013	29-10-2013	277	01-JAN-2013 till 30-JAN-2013

3. JL / Manual Update Details – This section will list all the journey logs and the manual parameter updates, with the delta and total value of the parameters, for the specified aircraft and the date range. The total of all the delta updates to be displayed in the last row of the list. The legends of the parameters will be displayed after the totals.

Enhancement Notification

DATE	LOG#	JL # / HPFU	FLIGHT CAT.	JL CAT.	FN	LC	LIFTS	HLT	RMC	RHH	ES (7200-ENG#)	N ₁ (7200-ENG#)	N ₂ (7200-ENG#)	TTSN	TOSH	LIFTS	HLT	RHH	RMC	TOTAL ES (7200-ENG#)	TOTAL N ₁ (7200-ENG#)	TOTAL N ₂ (7200-ENG#)	REMARKS (A, #HPFU)																				
20-Jan-2013	NA	HPFU-4002-2013	NA	NA	150	0	0	0	0	0	0	0.00	0.00	3,200.00	2029	725	537	122.60	1244	1751	2029.00	1244.00	1244.00	PH CORRECTION																			
20-Jan-2013	109	JL-100096-2013	CHARTER	CUST-001	3.00	2	1	1.0	2	1.0	2	2.00	2.00	3,200.00																													
20-Jan-2013	129	JL-100093-2013	CHARTER	CUST-001	2.50	1	1	1.0	3	1.0	2	1.00	1.00	3,277.00																													
20-Jan-2013	121	JL-100090-2013	CHARTER	CUST-001	2.40	1	1	1.0	2	1.0	3	1.00	1.00	3,274.50																													
27-Jan-2013	127	JL-100010-2013	CHARTER	CUST-001	2.00	1	1	1.0	1	1.0	2	1.00	1.00	3,271.90																													
26-Jan-2013	126	JL-100016-2013	CHARTER	CUST-001	3.00	1	1	2.0	3	2.0	2	2.00	2.00	3,264.00																													
25-Jan-2013	125	JL-100012-2013	CHARTER	CUST-001	4.00	2	0	0.0	0	0.0	1	2.00	2.00	3,264.00																													
24-Jan-2013	124	JL-100079-2013	CHARTER	CUST-001	5.00	2	0	1.0	0	1.0	3	2.00	2.00	3,262.00																													
23-Jan-2013	123	JL-100075-2013	CHARTER	CUST-001	8.00	2	2	2.0	2	2.0	2	2.00	2.00	3,257.00																													
22-Jan-2013	122	JL-100019-2013	CHARTER	CUST-001	4.00	1	0	0.0	0	0.0	1	1.00	1.00	3,248.00																													
21-Jan-2013	121	JL-100012-2013	CHARTER	CUST-001	1.50	1	0	0.0	0	0.0	1	1.00	1.00	3,245.00																													
20-Jan-2013	120	JL-100010-2013	CHARTER	CUST-001	3.40	2	1	1.0	2	1.0	1	2.00	2.00	3,244.30																													
19-Jan-2013	119	JL-100057-2013	CHARTER	CUST-002	2.90	1	1	1.0	2	1.0	2	1.00	1.00	3,240.40	2023	717	527	122.50	1224	1731	2023.00	1224.00	1224.00																				
19-Jan-2013	118	JL-100053-2013	CHARTER	CUST-002	1.90	1	1	1.0	2	1.0	2	1.00	1.00	3,237.50	2022	716	526	122.50	1225	1729	2022.00	1225.00	1225.00																				
17-Jan-2013	117	JL-100050-2013	CHARTER	CUST-002	3.70	2	1	2.0	1	2.0	1	2.00	2.00	3,235.60	2021	715	525	122.50	1224	1727	2021.00	1224.00	1224.00																				
16-Jan-2013	116	JL-100049-2013	CHARTER	CUST-002	4.00	2	2	2.0	2	2.0	4	2.00	2.00	3,231.90	2019	714	523	122.50	1222	1725	2019.00	1222.00	1222.00																				
15-Jan-2013	115	JL-100044-2013	CHARTER	CUST-002	0.00	0	0	0.0	0	0.0	0	0.00	0.00	3,227.00	2017	712	521	122.50	1219	1722	2017.00	1219.00	1219.00																				
14-Jan-2013	114	JL-100042-2013	CHARTER	PJH-NOR	2.40	1	1	1.0	1	1.0	2	1.00	1.00	3,223.00	2017	712	521	122.50	1219	1722	2017.00	1219.00	1219.00																				
13-Jan-2013	113	JL-100040-2013	CHARTER	PJH-NOR	2.70	1	1	1.0	1	1.0	2	1.00	1.00	3,225.40	2016	711	520	122.50	1219	1720	2016.00	1219.00	1219.00																				
12-Jan-2013	112	JL-100033-2013	CHARTER	PJH-NOR	2.00	2	1	1.0	1	1.0	2	2.00	2.00	3,222.70	2015	710	519	121.00	1217	1719	2015.00	1217.00	1217.00																				
11-Jan-2013	111	JL-100031-2013	CHARTER	PJH-NOR	0.00	0	0	0.0	0	0.0	0	0.00	0.00	3,218.90	2013	709	518	121.00	1215	1716	2013.00	1215.00	1215.00																				
10-Jan-2013	110	JL-100024-2013	CHARTER	PJH-NOR	0.50	1	1	1.0	1	1.0	2	1.00	1.00	3,216.90	2013	709	518	121.00	1215	1716	2013.00	1215.00	1215.00																				
09-Jan-2013	109	JL-100020-2013	CHARTER	CUST-002	0.00	1	2	11.0	11	11.0	2	1.00	1.00	3,216.40	2012	710	517	121.00	1214	1714	2012.00	1214.00	1214.00																				
08-Jan-2013	108	JL-100016-2013	CHARTER	CUST-002	1.50	1	1	1.0	2	1.0	1	1.00	1.00	3,216.60	2011	710	516	121.00	1212	1712	2011.00	1212.00	1212.00																				
07-Jan-2013	107	JL-100012-2013	CHARTER	CUST-002	1.50	1	1	1.0	2	1.0	1	1.00	1.00	3,217.50	2010	705	515	121.00	1211	1711	2010.00	1211.00	1211.00																				
06-Jan-2013	106	JL-100009-2013	CHARTER	CUST-002	2.70	2	1	1.0	1	1.0	2	2.00	2.00	3,216.00	2009	704	514	120.00	1209	1709	2009.00	1209.00	1209.00																				
05-Jan-2013	105	JL-100009-2013	CHARTER	CUST-001	3.00	2	1	1.0	1	1.0	2	2.00	2.00	3,215.30	2007	703	513	120.00	1207	1707	2007.00	1207.00	1207.00																				
04-Jan-2013	104	JL-100016-2013	CHARTER	CUST-001	0.00	0	0	0.0	0	0.0	0	0.00	0.00	3,216.30	2005	702	512	120.00	1205	1705	2005.00	1205.00	1205.00																				
03-Jan-2013	103	JL-100015-2013	CHARTER	CUST-001	3.00	2	0	0.0	0	0.0	2	2.00	2.00	3,216.30	2005	702	512	120.00	1205	1705	2005.00	1205.00	1205.00																				
02-Jan-2013	102	JL-100012-2013	CHARTER	CUST-001	5.00	3	2	2.0	2	2.0	3	3.00	3.00	3,207.30	2003	702	512	120.00	1203	1703	2003.00	1203.00	1203.00																				
16-Jan-2013	101	JL-100011-2013	CHARTER	CUST-001	0.00	0	0	0.0	0	0.0	0	0.00	0.00	3,203.50	2000	700	500	120.00	1200	1700	2000.00	1200.00	1200.00																				
TOTAL																						30,435	88.0	39	44	25	39	51	39														
HLT - Hold Level Time		RHH - Rotations/Hours		ES - Engine Start		N ₁ - Compressor Cycle																																					
RMC - Reverse Heat Cycle		RHH - Reverse Heat Hours		N ₁ - Compressor Cycle																																							
		Date		Time		Date		Time		Report Generated by		no										Page 1 of 1																					

Remarks will be displayed if available in Journey Log and Re-Initialize / Update Parameter Values screen

B. Facility to enable and disable the visibility of specified flight details in the flight log screens based on option settings to promote usability.

Reference: AHBE-1288

Background

Currently in Ramco Aviation Solution, Flight details are captured in Leg details multiline of Flight log screens (Create, Edit, Amend and View Journey Log). In the purview of user's preference to reduce data capture / entry in few specific flight detail columns. The subject change is made to ensure usability and customization of the specified flight log columns to the preference of the user.

This change will help the user to hide the following columns, when the user prefers not to maintain the specified details.

- 1) Flight # & Leg #
- 2) Landing Time
- 3) Take-off Date & Take-off Time

The user will be able to carry on the transaction without any interruptions from the validations of the columns that are not visible in the screen.

Change Details

The visibility of the Flight #, Leg #, Landing Time, Take-off Date and Take-off Time columns can be managed by Flight log's option setting.

Category '**Journey Log Display Options**' is added to **Flight Log Recording Options (Tab 2)** under "**Flight Log → Set Options**" activity.

Value set against the Parameters shown in 'Journey Log Display options' will enable (or) disable the below specified columns shown in 'Leg Details' multiline of Flight log screens.

- 1) Flight # & Leg #
- 2) Landing Time
- 3) Take-off Date & Take-off Time



Note: If the visibility of Flight # & Leg # is set as "No", then user will not be able to set the flight details validation basis to "Assignment" or "Flight #".



This change will override the existing validation available for the disabled columns due options set in 'Journey Log Display Options'

Exhibit 1: Specified Flight Detail columns are highlighted in Leg details multiline

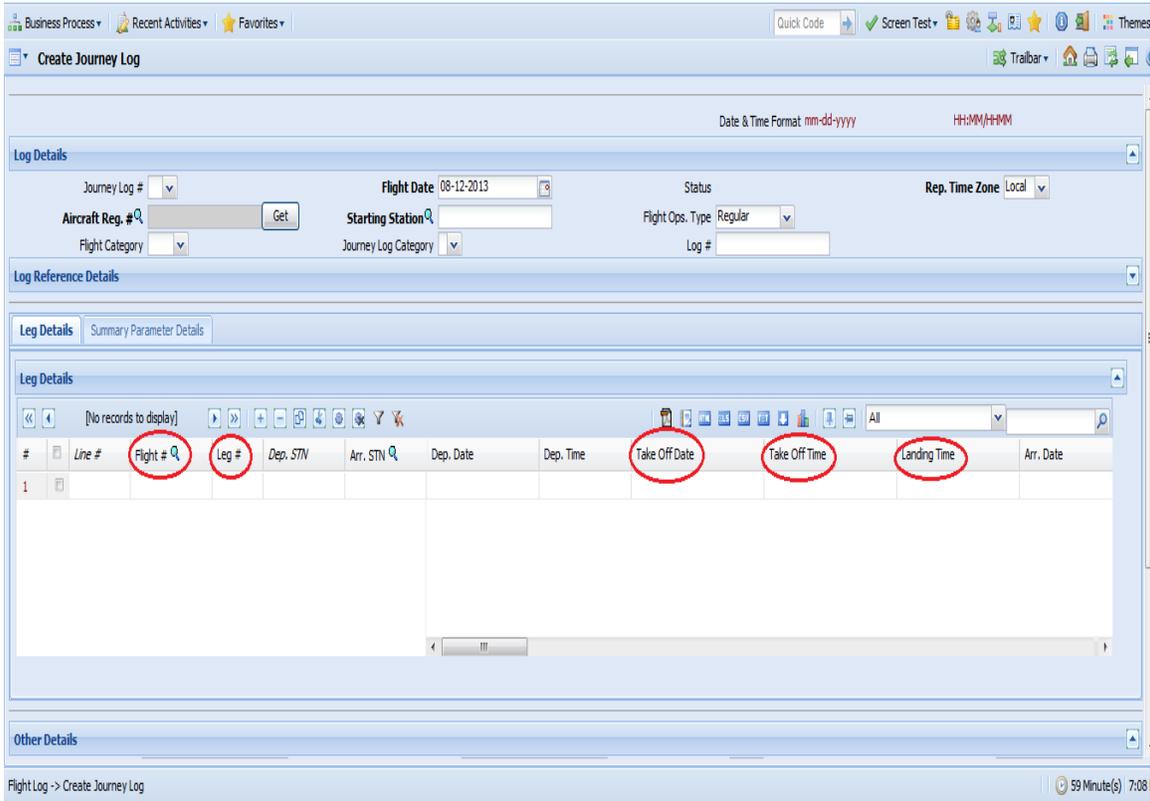
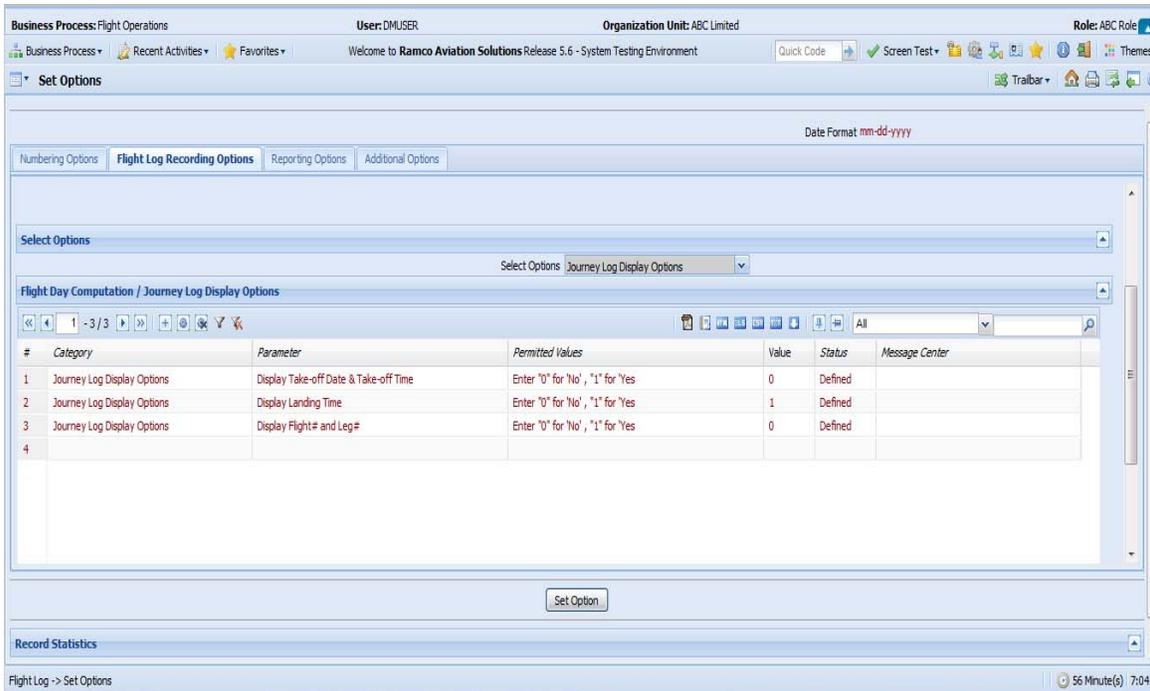


Exhibit 2: Flight Log → Set Options → Tab 2 (Flight log Recording Options) highlights New category: Journey Log Display Options & 3 Parameter values defined for it



C. 'Log #' field addition in Journey Log screens to capture the Flight log sheet reference.

Reference: AHBE-1288

Background

Log Sheet Reference number needs to be captured in Journey Log screens (Create, Edit, Amend and View Journey Log).

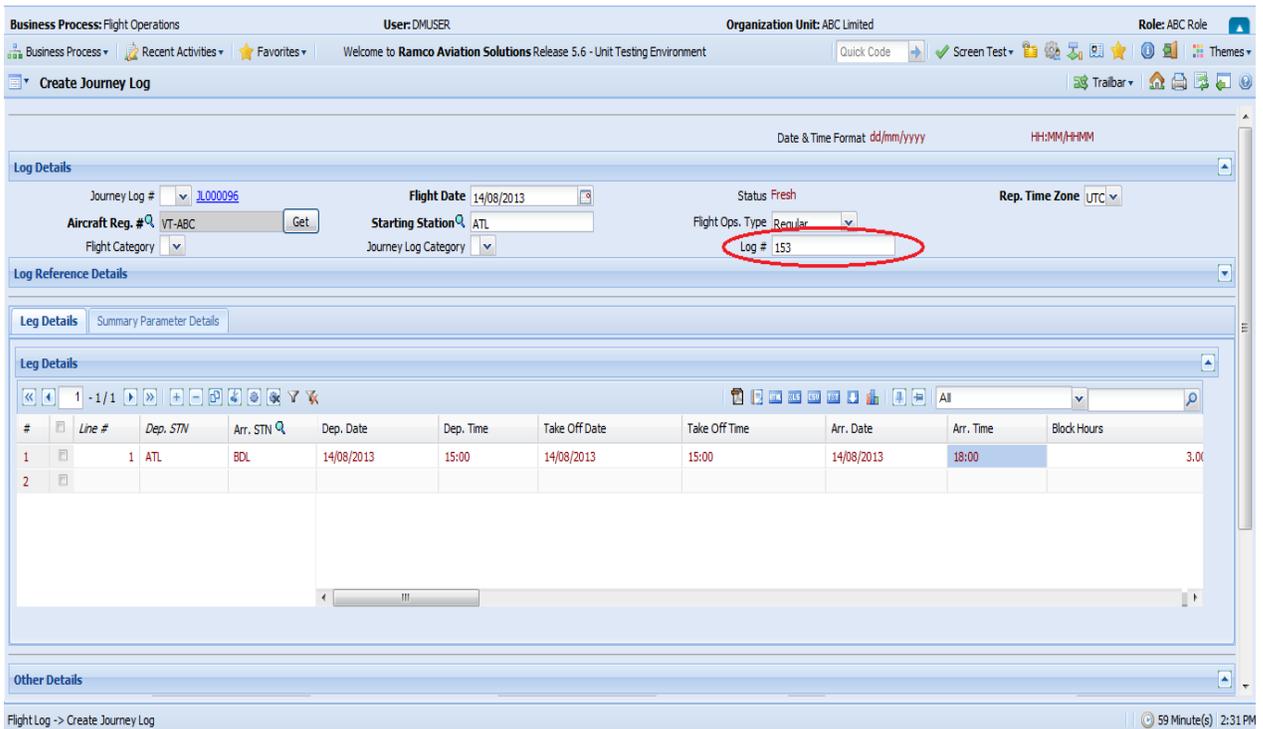
Change Details

'Log #' field added to Flight log screens as

- 'Editable field' in Create / Edit & Amend Journey Log screens and
 - 'Display field' in View Journey Log screen.
- ➔ Our key intention will be to capture the Log sheet reference number referring the sheet in which respective Journey Log details recorded.
- ➔ Log # field is also added in Flight log entry screens to facilitate retrieval of Journey Logs mapped to the Log #

 Note: Data entry in Log # field is optional.

Exhibit 3: Log # field addition in Create Journey Log



The screenshot shows the 'Create Journey Log' screen. At the top, it displays 'Business Process: Flight Operations', 'User: DMUSER', 'Organization Unit: ABC Limited', and 'Role: ABC Role'. Below this is a navigation bar with 'Business Process', 'Recent Activities', and 'Favorites'. The main content area is titled 'Create Journey Log' and contains several input fields:

- Log Details:** Journey Log # (3.000096), Flight Date (14/08/2013), Status (Fresh), Rep. Time Zone (UTC), Aircraft Reg. # (VT-ABC), Starting Station (ATL), Flight Ops. Type (Regular), and Log # (153, circled in red).
- Log Reference Details:** A sub-section with 'Log Details' and 'Summary Parameter Details' tabs.
- Leg Details:** A table with columns: #, Line #, Dep. STN, Arr. STN, Dep. Date, Dep. Time, Take Off Date, Take Off Time, Arr. Date, Arr. Time, and Block Hours. The first row shows: 1, 1, ATL, BDL, 14/08/2013, 15:00, 14/08/2013, 15:00, 14/08/2013, 18:00, 3.00.
- Other Details:** A section at the bottom of the main content area.

At the bottom of the screen, it shows 'Flight Log -> Create Journey Log' and a timer '59 Minute(s) 2:31 PM'.

Exhibit 4: Log # field addition in Edit Journey Log – Entry screen

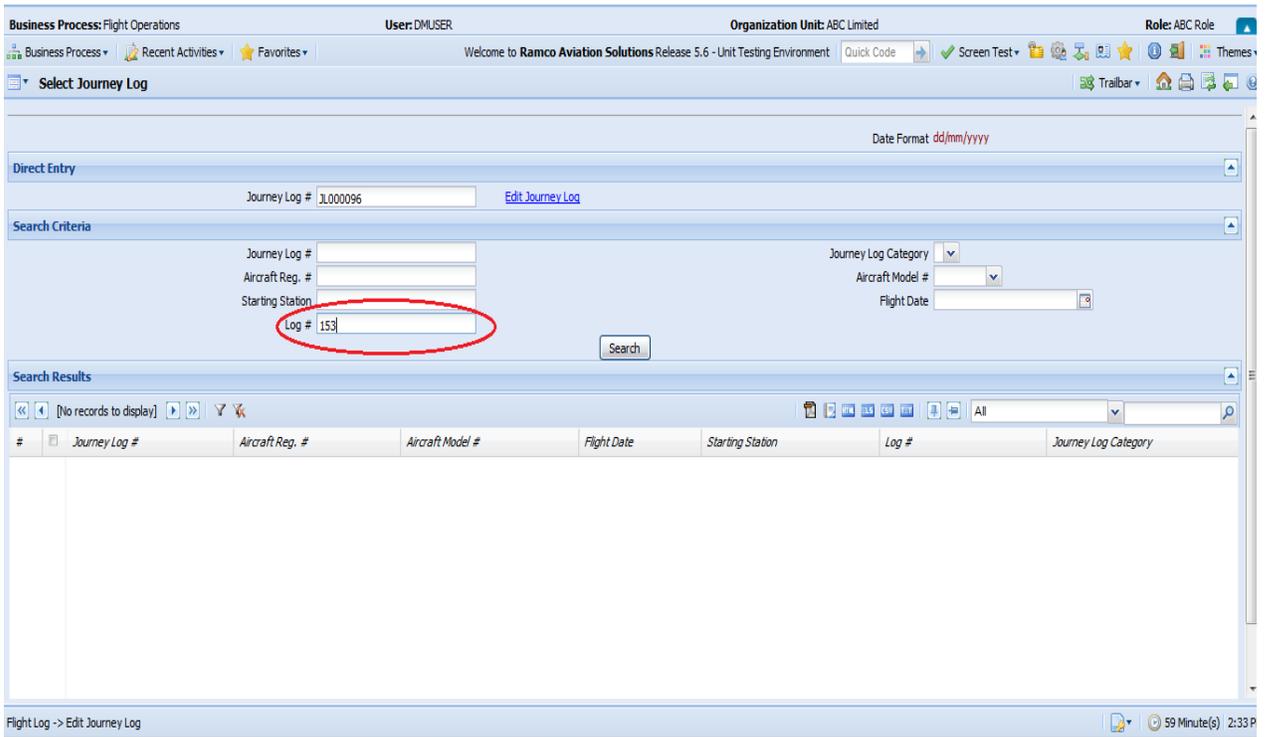


Exhibit 5: Log # field addition in Edit Journey Log screen

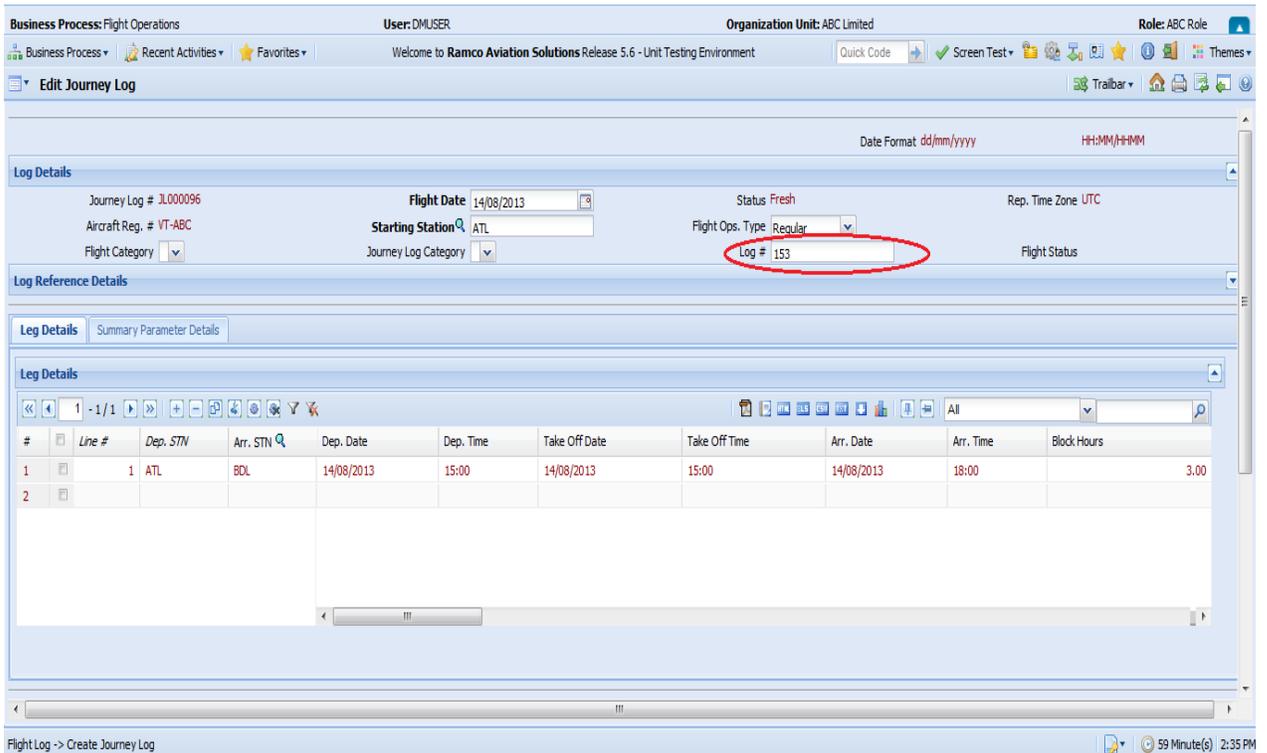


Exhibit 6: Log # field addition in Approve Journey Log – Entry screen

Business Process: Flight Operations User: DMUSER Organization Unit: ABC Limited Role: ABC Role

Business Process Recent Activities Favorites Welcome to Ramco Aviation Solutions Release 5.6 - Unit Testin Quick Code Screen Test Trailbar

Approve Journey Log Date Format dd/mm/yyyy

Search Criteria

Journey Log # Journey Log Category

Aircraft Reg. #

Starting Station

Log # Aircraft Model #

Flight Date

Search Results

#	Journey Log #	Aircraft Reg. #	Aircraft Model #	Flight Date	Starting Station	Log #	Journey Log Cat
1	3,000096	VT-ABC	ERJ 170	14/08/2013	ATL	153	

Flight Log -> Approve Journey Log 59 Minute(s) 2:36

Exhibit 7: Log # field addition in Amend Journey Log – Entry screen

Business Process: Flight Operations User: DMUSER Organization Unit: ABC Limited Role: ABC Role

Business Process Recent Activities Favorites Quick Code Screen Test Trailbar

Select Journey Log Date Format dd/mm/yyyy

Direct Entry

Journey Log #

Amendment #

[Amend Journey Log](#)

Search Criteria

Journey Log #

Journey Log Category

Aircraft Reg. #

Starting Station

Status

Flight Date

Aircraft Model #

Log #

Search Results

#	Journey Log #	Amendment #	Status	Aircraft Reg. #	Aircraft Model #	Flight Date	Starting Station
1	3,000096	0	Approved	VT-ABC	ERJ 170	14/08/2013	ATL

Flight Log -> Amend Journey Log 59 Minute(s) 2:43 PM

Exhibit 8: Log # field addition in Amend Journey Log screen

The screenshot shows the 'Amend Journey Log' screen. At the top, it displays 'Business Process: Flight Operations', 'User: DMUSER', 'Organization Unit: ABC Limited', and 'Role: ABC Role'. Below this is a navigation bar with 'Business Process', 'Recent Activities', and 'Favorites'. The main header area includes 'Welcome to Ramco Aviation Solutions Release 5.6', 'Quick Code', 'Screen Test', and 'Themes'. The title bar reads 'Amend Journey Log'. The 'Log Details' section contains fields for 'Journey Log # 3L000096', 'Flight Date 14/08/2013', 'Status Approved', 'Rep. Time Zone UTC', 'Aircraft Reg. # VT-ABC', 'Starting Station ATL', 'Flight Ops. Type Regular', 'Journey Log Category', 'Flight Category', 'Amendment # 0', and 'Log # 153'. The 'Log # 153' field is circled in red. Below this is the 'Log Reference Details' section, followed by a 'Leg Details' table with columns for '#', 'Line #', 'Dep. STN', 'Arr. STN', 'Dep. Date', 'Dep. Time', 'Take Off Date', 'Take Off Time', 'Arr. Date', 'Arr. Time', and 'Block Hours'. The table contains two rows of data. At the bottom, there is an 'Other Details' section and a status bar showing 'Flight Log -> Amend Journey Log' and a timer '59 Minute(s) 2:46 PM'.

Exhibit 9: Log # field addition in View Journey Log - Entry screen

The screenshot shows the 'View Journey Log - Entry' screen. At the top, it displays 'Business Process: Flight Operations', 'User: DMUSER', 'Organization Unit: ABC Limited', and 'Role: ABC Role'. Below this is a navigation bar with 'Business Process', 'Recent Activities', and 'Favorites'. The main header area includes 'Welcome to Ramco Aviation Solutions Release 5.6 - Unit Testing Environment', 'Quick Code', 'Screen Test', and 'Themes'. The title bar reads 'Select Journey Log'. The 'Direct Entry' section contains fields for 'Journey Log #', 'Amendment #', and a 'View Journey Log' button. The 'Search Criteria' section contains fields for 'Journey Log #', 'Status', 'Aircraft Reg. #', 'Starting Station', 'Log # 153', 'Journey Log Category', 'Aircraft Model #', and 'Flight Date'. The 'Log # 153' field is circled in red. Below this is a 'Search Results' table with columns for '#', 'Journey Log #', 'Amendment #', 'Status', 'Aircraft Reg. #', 'Aircraft Model #', 'Flight Date', and 'Starting Station'. The table contains one row of data. At the bottom, there is a status bar showing 'Flight Log -> View Journey Log' and a timer '59 Minute(s) 2:47 PM'.

Exhibit 10: Log # field addition in View Journey Log screen

Business Process: Flight Operations User: DMUSER Organization Unit: ABC Limited Role: ABC Role

Business Process Recent Activities Favorites Quick Code Screen Test Themes

View Journey Log 1 / 1 Trailbar

Date Format dd/mm/yyyy h:mm

Log Details

Journey Log # J.000096 Flight Date 14/08/2013 Status Approved Rep. Time Zone UTC
 Aircraft Reg. # VT-ABC Starting Station ATL Flight Ops. Type Regular Execution Ref. #
 Flight Category Amendment # 0 Journey Log Category **Log # 153**

Log Reference Details

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

Configuration Class ERJ 170 SERIES Total Flight Hours 51.30 HR FH Log Mode Actual Flight Time Last Journey Log # J.000070
 Manufacturer Serial # MSN1 Total Flying Cycles 19 CYCL Last Journey Log Status Approved
 Aircraft Model # ERJ 170

Leg Details Summary Parameter Details

Leg Details

1 - 1 / 1 All

#	Line #	Dep. STN	Arr. STN	Dep. Date	Dep. Time	Take Off Date	Take Off Time	Arr. Date	Arr. Time	Block Hours	Flight Hrs
1	1	ATL	BDL	14/08/2013	15:00	14/08/2013	15:00	14/08/2013	18:00	3.00	3.00

Flight Log -> View Journey Log 59 Minute(s) 2:48 PM

D. Recording of Oil Uplift Serial-wise

Reference: AHBE-10662

Background

Record Fuel / Oil Uplift Details screen allows the user to record Fuel and Oil Uplift details for an aircraft at a given date and time for each Engine/APU attached to the aircraft against Part #. Now the user can record oil uplift against Serial # and Component # of the engine.

Change Details

In the **Record Fuel / Oil Uplift Details** screen, on click of **Get Details**, only Part # and Position Codes for the given A/C Reg # were retrieved for Engine/APU position type.

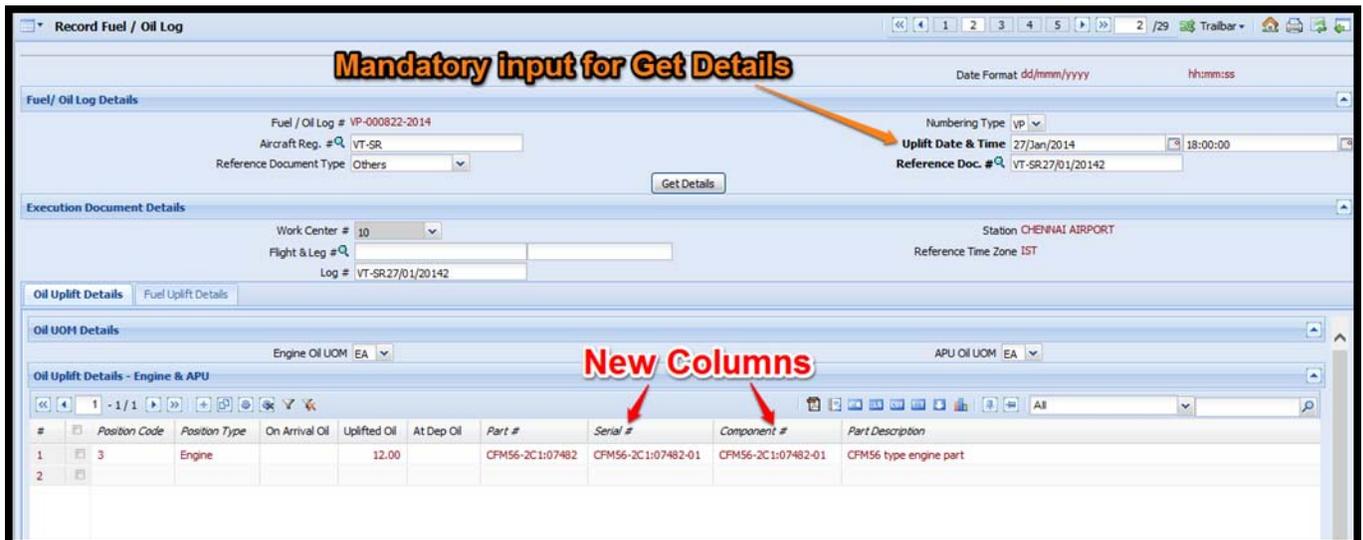
Now, on click of **Get Details**, Part #, Position Codes along with Serial # and Component # for the given A/C Reg # are retrieved for Engine/APU position type.

Uplift Date & Time control is now moved above the **Get Details** button and is now a mandatory input to invoke **Get Details**.

On click of **Get Details**, system will retrieve the **Serial # / Component #** for Engines/APU along with the **Part #** at the given **Uplift Date & Time** for the given **A/C Reg #** for the different **Position codes**.

Exhibit - 1:

Record Fuel / Oil Log Details screen changes



E. Analyzing Oil Uplift with Reports

Reference: AHBE-10662

Background

Oil Consumption Trend Report and **Oil Uplift Report** provides the user with a clear view of the oil consumption rate of different engines and total oil consumption of all the engines under a part model in a given date range.

Change Details

A new activity, **Print Oil Consumption Analysis Report**, has been added in the **Flight Log** component. The two reports can be launched from the two tabs from this screen.

Oil Consumption Trend Report

The user can give a **Part # / Serial #** combination or a **Component #** of an engine or an **A/C Reg #** as input, specify a date range that is less than 2 years, and click the **Print Oil Consumption Trend Report** link under the **Oil Consumption Trend Analysis** tab.

If the user gives a **Part # / Serial #** as input, a report for that engine in the given date range will be printed. *Help facility is provided.*

If the user gives a **Component #** as input, a report for that engine in the given date range will be printed. *Help facility is provided.*

If the user gives an **A/C Reg #** as input, reports for all engines that were attached to the aircraft in the given date range will be printed. *Help facility is provided.*

If the user selects Daily as **Timeline Label** input, consumption trend report will be displayed on a daily basis (+1 day). This option cannot be selected for a date range greater than 1 month.

If the user selects Weekly as **Timeline Label** input, consumption trend report will be displayed on a weekly basis (+7 days). This option cannot be selected for a date range greater than 6 months.

If the user selects Fortnightly as **Timeline Label** input, consumption trend report will be displayed on a fortnightly basis (+15 days).

Exhibit - 1:

Print Oil Consumption Analysis Report (Tab 1)

The screenshot displays the 'Oil Consumption Analysis Report' window. It features two tabs: 'Oil Consumption Trend Analysis' (selected) and 'Oil Uplift Analysis'. The interface includes several input fields and a dropdown menu:

- Part # / Serial #:** Searchable input field.
- Component #:** Input field with the value 'CFM56-2C1:07482-01'.
- Aircraft Reg #:** Searchable input field.
- From / To Date:** Date range selector showing '12/06/2013' to '12/08/2013'.
- Timeline Label:** A dropdown menu currently set to 'Weekly'.

At the bottom of the form, there is a blue hyperlink labeled 'Print Oil Consumption Trend Report'. The window title bar shows 'Oil Consumption Analysis Report' and the system tray includes a 'Trailbar' icon and a 'Date Format: mm/dd/yyyy' indicator.

The printed report has the following features:

1. The report will be printed in landscape format in A4 size.
2. The report header will have the following information:
 - a. Company Logo
 - b. Report Title
 - c. Company Address and Contact Details
3. The table will be printed first followed by the graph.
4. The table header will have the following information:
 - a. Part #
 - b. Serial #
 - c. Component #
 - d. Part Model #
 - e. Current Status
(Attached or Removed)
 - f. Current A/C Reg #
(only shown if current status is 'Attached' else will be blank)
5. The table will have the following columns:
 - a. Date
 - b. Log #
 - c. Fuel / Oil Log #
 - d. Total FH
 - e. FH Difference
(Flight Hours difference: Will be blank if the Component is removed and attached to another A/C Reg # or if there is no FH Difference between two adjacent Oil Uplift entries)
 - f. Consumption
(Oil Uplift entry)
 - g. Consumption Rate
(Will be blank if FH Difference is blank. Graph will ignore the blank values)

- h. A/C Reg #
6. The report footer will have the following information:
- a. Units
 - b. Generated On
(with Date and Time)
 - c. Page Number
7. The graph header will have the following information:
- a. Part #
 - b. Serial #
 - c. Component #
 - d. Max Value
(defined in 'Range To' for the user defined Oil Consumption Rate base parameter (can be configured in Edit Consumption & Range Parameters page for each individual engine))
8. The graph will have the following features:
- a. X-axis is Timeline
 - b. Y-axis is Consumption Rate
 - c. Max value is shown as a dashed line in the graph
 - d. The points plotted in the graph is joined by a line to visualize the oil consumption trend for each engine.
 - e. Period is mentioned below the X-axis
 - f. Page footer will have Units, Generated On details and Page number.

Exhibit - 2:

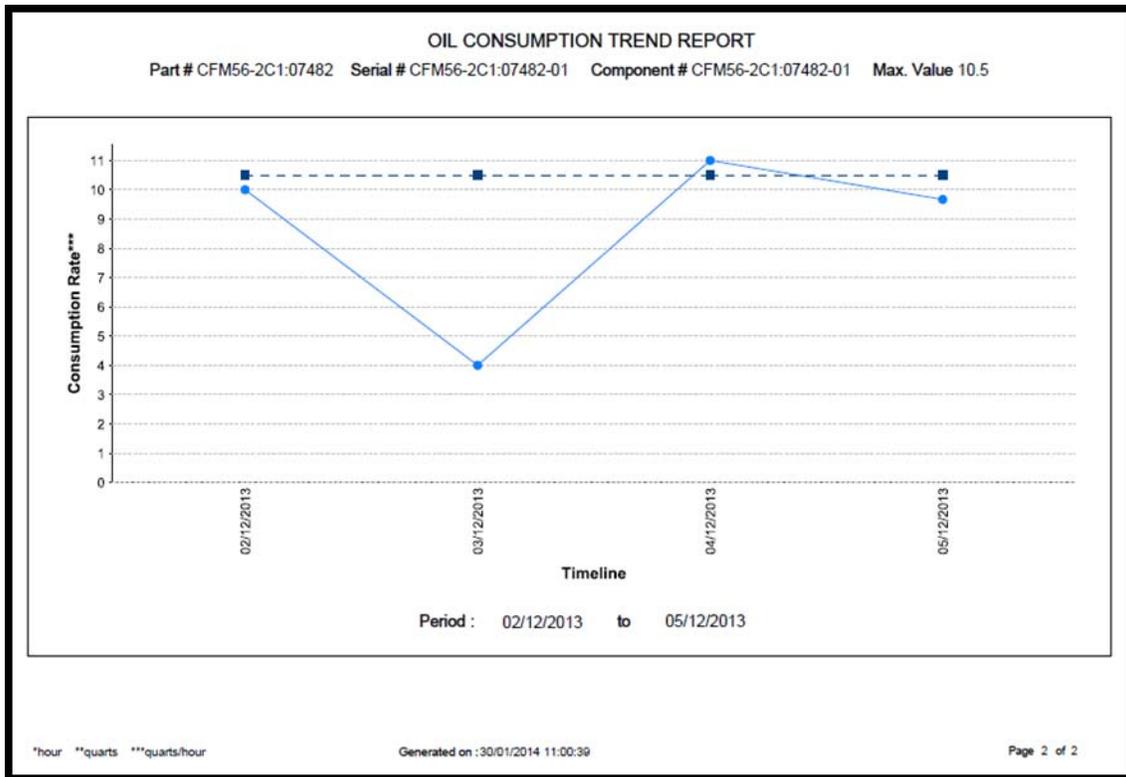
Sample Oil Consumption Trend Report

		OIL CONSUMPTION TREND REPORT				HEVILIFT PNG 13-05 The Concourse, 300 Beach Road, Singapore, 199555 Email: info@heviliftgroup.com	
Part # CFM56-2C1:07482		Serial # CFM56-2C1:07482-01		Component # CFM56-2C1:07482-01			
Part Model # CFM56		Curr. Status Attached		Curr. A/C Reg # VT-SR			
Date	Log #	Fuel / Oil Log #	Total FH *	FH Diff *	Consumption **	Con. Rate ***	A/C Reg #
02/12/2013	101	VP-000784-2014	502.81	2.00	20.00	10.00	VT-RMC
03/12/2013	102	VP-000783-2014	503.81	1.00	4.00	4.00	VT-RMC
04/12/2013	103	VP-000785-2014	505.81	2.00	22.00	11.00	VT-RMC
05/12/2013	104	VP-000738-2014	508.81	3.00	29.00	9.67	VT-RMC

*hour **quarts ***quarts/hour

Generated on : 30/01/2014 11:00:39

Page 1 of 2



Oil Uplift Report

The user can give a **Part Model #**, specify a date range that is less than 2 years, and click the **Print Oil Uplift Report** link under the **Oil Uplift Analysis** tab.

When the user gives **Part Model #** as input, total consumption for all Engines whose **Part #** falls under the given **Part Model #** in the selected time range is printed in the report. *Help facility is provided.*

Exhibit - 3:

Print Oil Consumption Analysis Report (Tab 2)



The printed report has the following features:

1. The report will be printed in landscape format in A4 size.
2. The report header will have the following information:
 - a. Company Logo
 - b. Report Title
 - c. Company Address and Contact Details
3. The table will be printed first followed by the graph.
4. The table header will have the following information:
 - a. Part Model #
 - b. Part Model Description
 - c. Period
5. The table will have the following columns:
 - a. Part #

- b. Part Description
 - c. Serial #
 - d. Component #
 - e. Total Oil Consumption
 - f. Current A/C Reg #
(Will be blank if the Serial is currently not attached to any aircraft)
6. The report footer will have the following information:
- a. Units
 - b. Generated On
(with Date and Time)
 - c. Page Number
7. The graph header will have the following information:
- a. Part Model #
8. The graph will have the following features:
- a. X-axis is Serial #
 - b. Y-axis is Consumption.
 - c. Serials are sorted by descending order of their consumption values.
 - d. Consumption values for each Serial # are shown as a data label on top of each bar.
 - e. Period is mentioned below the X-axis.
 - f. Page footer will have Units, Generated On details and Page number.
9. If the Part Model # that is supplied does not have any engines under it, the report will launch with an empty table and graph.

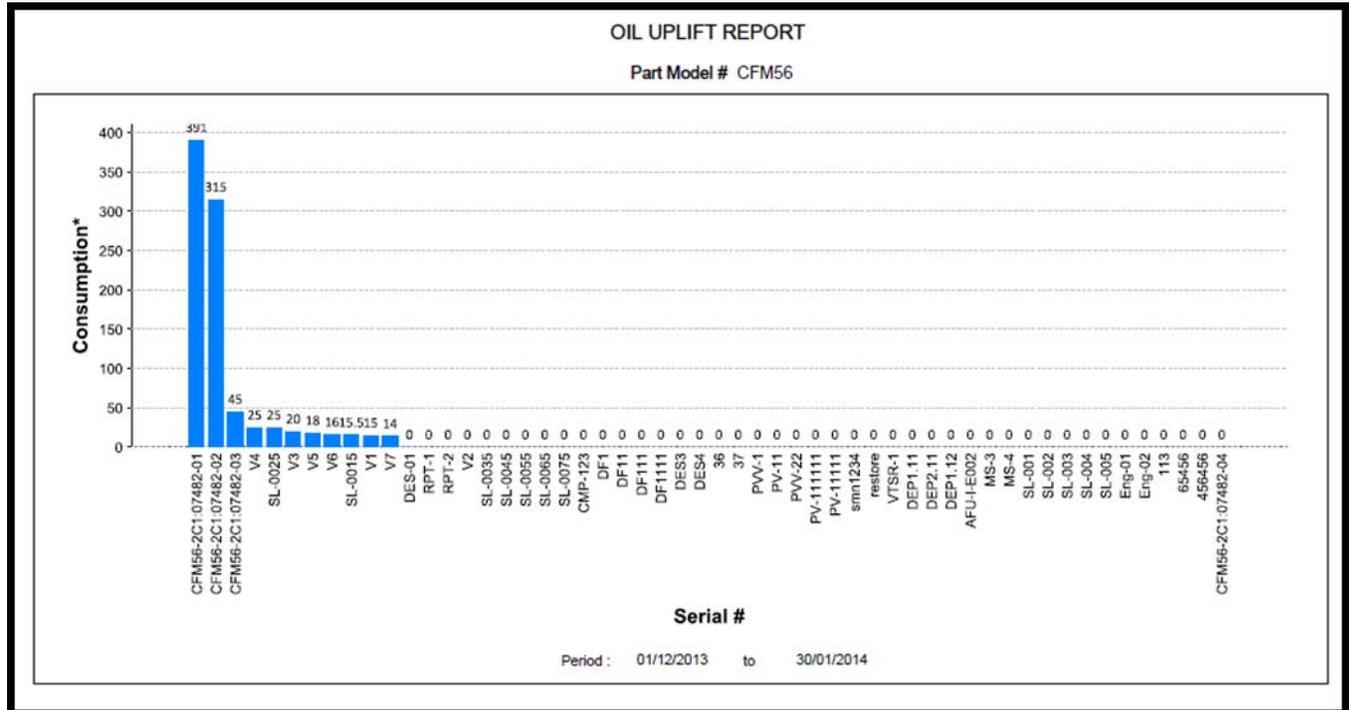
**Exhibit - 4:
Sample Oil Uplift Report**

		OIL UPLIFT REPORT			HEVILIFT PNG 13-05 The Concourse, 300 Beach Road, Singapore, 199555 Email: info@heviliftgroup.com	
Part Model # CFM56		Part Model Desc. Modular High-Bypass Turbofan jet engine			Period : 01/12/2013 to 30/01/2014	
Part #	Part Description	Serial #	Component #	Total Oil Cons. *	Curr. A/C Reg #	
CFM56-2C1:07482	CFM56 type engine part	CFM56-2C1:07482-01	CFM56-2C1:07482-01	391.00	VT-SR	
CFM56-2C1:07482	CFM56 type engine part	CFM56-2C1:07482-02	CFM56-2C1:07482-02	315.00		
CFM56-2C1:07482	CFM56 type engine part	CFM56-2C1:07482-03	COMP-002812	45.00	VT-RMC	
CFM56-2-7200:35895	CFM56 engine variant designed specifically for test aircraft	V4	COMP-002769	25.00		
CFM56-2C1:07482	CFM56 type engine part	SL-0025	COMP-001990	25.00	VT-ABC-1	
CFM56-2-7200:35895	CFM56 engine variant designed specifically for test aircraft	V3	COMP-001558	20.00		
CFM56-2-7200:35895	CFM56 engine variant designed specifically for test aircraft	V5	COMP-002770	18.00	VT-VAIR	
CFM56-2-7200:35895	CFM56 engine variant designed specifically for test aircraft	V6	COMP-002771	16.00	VT-VAIR	
CFM56-2C1:07482	CFM56 type engine part	SL-0015	COMP-001989	15.50	VT-ABC-1	
CFM56-2-7200:35895	CFM56 engine variant designed specifically for test aircraft	V1	COMP-001556	15.00		
CFM56-2-7200:35895	CFM56 engine variant designed specifically for test aircraft	V7	COMP-002772	14.00	VT-VAIR	
CFM56-2C1:07482	CFM56 type engine part	DES-01	COMP-002776	0.00		

*quarts

Generated On : 30/01/2014 17:08:42

Page 1 of 5



WHAT'S NEW IN COMPONENT REPLACEMENT?

Changes in Initialize and Update Configuration

Reference: AHBE-12664

Background

- i. **Initialize and Update Configuration** facilitates bulk upload of serials for configuration. On attachment there are possibilities that error occurs in more than one attachment positions. Visibility of error in different positions at a glance was not available.
- ii. Also this interface handles more than 1000 multiline data. This resulted in slow down of Screen Launch, Search and Save.

Change Details

- i. New column 'Message Center' is bough in the 'Lower Assembly Details' multiline. This will facilitate visibility of errors in different positions. On save with multiple records if errors are there in more than one position, corresponding error messages will be displayed in 'Message Center' against the position code.

Exhibit 1: Initialize and Update Configuration

The screenshot shows the 'Initialize & Update Configuration' window. At the top, there are fields for 'CR Numbering Type' (REPL), 'Replacement Date & Time' (25-04-2014, 11:29:33), 'Station' (chennai airport), and 'Recorded By' (06277). Below this is the 'Lower Assembly Details' section, which contains a table with columns: #, Message Center, Level Code, Seq #, Position Code, Position, Status, and Component Mandat. The table has 10 rows, each with an error message in the 'Message Center' column. A 'VirtualWorks™ Message' dialog box is open in the center, displaying the message: 'Selected records validated successfully. Please check the message center for errors.' Callouts point to the 'Message Center' column header, the dialog box, and the error messages in the table.

#	Message Center	Level Code	Seq #	Position Code	Position	Status	Component Mandat
1	Unable to process. Please enter Installed Serial #.						No
2	Unable to process. Reason # is not entered. Please enter						No
3	Unable to process. Please enter Installed Serial #.						No
4	Unable to process. Entered Installed Part # does not exist.	71-20002-1:35895	1.2.2	10 POS2	Active		No
5	Unable to process. Please enter Installed Serial #.	71-20002-1:35895	1.2.3	11 POS3	Active		No
6	Unable to process. Please enter Installed Serial #.	71		12 POS4	Active		No
7	Unable to process. Installed Serial # is not valid for	71		13 POS5	Active		No
8	Unable to process. Please enter Installed Serial #.	71		14 POS6	Active		No
9	Unable to process. Please enter Installed Serial #.	71		15 POS7	Active		No
10	Unable to process. Please enter Installed Serial #.	71-20002-1:35895	1.2.8	16 POS8	Active		No

- ii. Performance tuning is done in screen launch, Search and Save.

- a. Screen launch with more than 2000 data will take less than 35 sec.
- b. Search for 2000 data will take less than 3 sec.
- c. Save with 200 data will take less than 40 sec.

WHAT'S NEW IN SHOP WORK ORDER?

A. Enhancement in Issue Certificates

Reference: AHBD-942

Background

A Manufacturing Work Order is used to manufacture multiple serial numbers, after manufacturing the Certificate stating that all the manufacturing work is done according to standards specified by Regulatory Authority should be issued by the manufacturer for each serial number. The facility to issue multiple Certificates with different serial numbers for a Work Order was not available.

This change will facilitate the generation of multiple Certificates for the Work Orders with multiple core as 'Yes' and having cores associated to it. Multiple Certificates can be generated for Part Id tag, Certificate of Maintenance, Certificate of Conformity and Certificate of Calibration using 'Print Option' drop down box.

Change Details

A new drop-down box named 'Print Option' is added in the **Issue Certificates** screen in **Part Id Tag, Certificate of Maintenance, Certificate of Conformity** and **Certificate of Calibration** tabs and this option will be enabled only for the Work Orders with 'Multiple Core' as 'Yes'. The 'Print Option' will be loaded with the values "All Items on one Certificate" and "One Certificate per Item". If user selects 'Print Option' as "All Items on one Certificate" only one Certificate will be generated and all the associated serial or Lot numbers will be shown in the same Certificate, if 'Print Option' is selected as "One Certificate per Item" then multiple Certificates will be generated with unique serial or Lot numbers (Serial or Lot numbers are available as associated cores for that Work Order).

The Radio buttons named 'Print MRO C of C' and 'Print Part 21 C of C' are added in the **Certificate of Conformity** Tab, the default option will be 'Print MRO C of C. Based on the selected option, the MRO or Part 21 Certificate of Conformity will be generated.

Certificate of Maintenance (8130-3) can be generated for Air carrier, Repair Station and Part 21 manufacturers based on the Certificate type selected.

Exhibit-1: Part Id Tag – Print Option

Issue Certificates

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

Select Action

Create Tag Reprint Tag Replace Tag

Reference Type: Work Order # | Reference #: CWO-000112-2012 | [Get Details](#)

Part Tag Details

Main Core Details

Part # / Serial #: 114T4101-50:81205 | Serial #: 870000
 Mfg. Serial #: 870000 | Mfg Lot # | Qty: 4.00
 Component # | Multiple Cores? Yes | Part Description #12 | SLAT

Reference Details

Additional Details

Comments:
 SB/AD:
 Reason for Rejection:

Document Attachment Details

Authorization Details

Print Option: All Items on one Certific.

[Save](#) [Approved & Print](#) [Reprint](#) [Cancel](#)

Exhibit-2: Certificate of Maintenance – Print Option

Issue Certificates

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

Select Action

Create Certificate Reprint Certificate Replace Certificate

Reference Type: Work Order # | Reference #: CWO-000112-2012 | [Get Details](#)

Issue Details

Main Core Details

Part # / Serial #: 114T4101-50:81205 | Serial #: 870000
 Mfg. Serial #: 870000 | Mfg Lot # | Qty: 4.00
 Component # | Multiple Cores? Yes | Part Description #12 | SLAT

Reference Details

Certificate Details

Certifying Remarks: Certified as per CMM 878-787
 Eligibility:

Print Option: One Certificate per Item

Exhibit-3: Certificate of Conformity – Print Option, Print MRO C of C and Print 21 C of C

Issue Certificates

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

Select Action
 Create Certificate Reprint Certificate Replace Certificate
Reference Type: Work Order # | Reference #: CWO-000112-2012 | Get Details

Issue Details
Certificate # | Printed? | Certificate Status
Numbering Type: COM | # of Copies | Replaced Cert #

Main Core Details
Part # / Serial #: 11474101-50:81205 | Serial #: 870000 | Qty: 4.00
Mfg. Serial #: 870000 | Mfg Lot # | Part Description: #12 SLAT
Component # | Multiple Cores?: Y

Reference Details

Certificate Details
Certifying Remarks: [Text Area]
Print Option: All Items on one Certificate | Print MRO C of C | Print Part 21 C of C

Document Attachment Details

Exhibit-4: Certificate of Calibration – Print Option

Issue Certificates

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

Select Action
 Create Certificate Reprint Certificate Replace Certificate
Reference Type: Work Order # | Reference #: CWO-000112-2012 | Get Details

Issue Details

Main Core Details
Part # / Serial #: 11474101-50:81205 | Serial #: 870000 | Qty: 4.00
Mfg. Serial #: 870000 | Mfg Lot # | Part Description: #12
Component # | Multiple Cores?: Yes

Reference Details

Calibration Information

Environmental Conditions

Shop Findings
Conditions Found: [Text Area] | Corrective Action: [Text Area]
Additional Comments: [Text Area] | Print Option: All Items on one Certificate

B. Facility to issue modified lot # during Main Core Material Request

Reference: AHBE-5880

Background

Currently, if the work order is created with details of specific Lot # of a part and the part is available only in a modified Lot # while requesting the material request, the required part will not be issued for a work. The situation can arise due to reasons like stock transfer, etc., after the creation of work order before a material request is raised.

The system will now be able to issue the part with the modified Lot #, provided that the Manufacturer Lot # of the part in both the lots is same.

Change Details

The change is effected when the Request Main Core or Generate Material Request Button is clicked in the **Record Shop Execution Details** screen. When the material is requested for a part whose Lot # is modified, the system will issue the part if the Manufacturer Lot # and the Quantity are same for both the original and modified lot #. If the quantity is available in multiple lot #, the part will not be issued.

For Example, if quantity of a part requested is 10,

The part will be issued in the following case:

<i>Part #</i>	<i>Mfg Lot #</i>	<i>Lot #</i>	<i>Quantity</i>
<i>P1</i>	<i>M1</i>	<i>L1</i>	<i>0</i>
<i>Part #</i>	<i>Mfg Lot #</i>	<i>Modified Lot #</i>	<i>Quantity</i>
<i>P1</i>	<i>M1</i>	<i>L2</i>	<i>10</i>

The part will not be issued in the following case:

<i>Part #</i>	<i>Mfg Lot #</i>	<i>Lot #</i>	<i>Quantity</i>
<i>P2</i>	<i>M1</i>	<i>L1</i>	<i>6</i>
<i>Part #</i>	<i>Mfg Lot #</i>	<i>Modified Lot #</i>	<i>Quantity</i>
<i>P2</i>	<i>M1</i>	<i>L2</i>	<i>2</i>

(OR)

Enhancement Notification

<i>Part #</i>	<i>Mfg Lot #</i>	<i>Lot #</i>	<i>Quantity</i>
<i>P3</i>	<i>M1</i>	<i>L1</i>	<i>0</i>
<i>Part #</i>	<i>Mfg Lot #</i>	<i>Modified Lot #</i>	<i>Quantity</i>
<i>P3</i>	<i>M1</i>	<i>L2</i>	<i>5</i>
<i>Part #</i>	<i>Mfg Lot #</i>	<i>Modified Lot #</i>	<i>Quantity</i>
<i>P3</i>	<i>M1</i>	<i>L3</i>	<i>5</i>

C. Ability to display the Shelf Life Expiry Date

Reference: AUCH-1244

Background

8130-3 is a certificate of maintenance report that is generated by the user for regulatory purposes. It serves as an approval for return to service after maintenance or alteration by an authorized repair station or Air Carrier having an approved Continuous Airworthiness Maintenance Program. It is hence an Airworthiness Approval Form which identifies all the details of the article for its conformity.

8130-3 report generated from Ramco's M&E application has been enhanced to facilitate the user to print the shelf life expiry date of the part in the report.

Change Details

If the shelf life expiry date of the part is available, it will be displayed in block 13 of the report below the certifying remarks, mentioned in issue certificate of maintenance screen. If the shelf life expiry date is not available, even the Shelf Life Exp Date label will not be visible in the report.

Exhibit 1:

Business Process: Component Maintenance User: DMUSER Organization Unit: ABC Limited Role: ABC Role

Business Process Recent Activities Favorites Welcome to Ramco Aviation Solutions Release 5.6 - System Testing Environment Quick Code Screen Test

Issue Certificates

Issue Details

Main Core Details

Reference Details

Work Order # SWO-000099-2013 Order Description Corrosion Event # SWO-000092-2013

Customer # Customer Order # Customer PO #

Ref Doc #/Rev # Rev Date Final Disposition Repair

Shelf Life Exp Date 26-Dec-2013 Work Status Overhaul Inspect Repair Overhaul Modify

Certificate Details

CERTIFIED

Shelf Life Exp. Date available here will be printed

Eligibility

Select Report Type

#	Certificate Type	Reqd?	#	Certifying Authority	Reqd?
1	21-CFR Part 11	<input type="checkbox"/>	1	ASA	<input type="checkbox"/>
2	FAA Authorized Release Certificate	<input type="checkbox"/>	2	Aveos	<input type="checkbox"/>
3	Air Carrier 8130-3	<input checked="" type="checkbox"/>	3	Barabey	<input type="checkbox"/>
4	CAAC AAC-038	<input type="checkbox"/>	4	CAAC	<input type="checkbox"/>
5	Certificate of Conformance	<input type="checkbox"/>	5	Director General of Civil Aviation	<input type="checkbox"/>

Shop Work Order -> Issue Certificate of Maintenance 57 Minute(s) 8:11 PM

Exhibit 2: 8130-3 Report with Shelf Life Exp. Date printed.

1. Approving National Aviation Authority/Country: FAA/United States		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG				3. Form Tracking Number: COM-000241-2013	
4. Organization Name and Address: Air Evac EMS INC., FAA CRS# QEV436K, 720 Bratton Ave., West Plains, MO 65775 5678945678905436485438583595854580946897890789579 Comments					5. Work Order / Contract / Invoice Number: SWO-000099-2013		
6. Item:	7. Description:	8. Part Number:	9. Eligibility:	10. Quantity:	11. Serial/Batch Number:	12. Status/Work:	
1	0-1" OUTSIDE MICROMTR	103-259	N/A	1.	269-SL-01	Overhauled	
13. Remarks: TSO: N/A TT: N/A CERTIFIED Shelf Life Exp Date : Dec 26 2013							
A complete description of work performed and parts installed is on file at the above referenced organization under the work order and system tracking reference number indicated in blocks 3 and 5. For European shipments: Certifies that the work specified in block 12/13 was carried out in accordance with EASA Part 145, and in respect to that work the component is considered ready for release to service under EASA Part 145. Approval Number EASA 145.5506.							
14. Certifies the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in a condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 13.			19. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 13 Certifies that unless otherwise specified in Block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.				
15. Authorized Signature:		16. Approval/Authorization No.:		20. Authorized Signature:		21. Approval/Certificate No.:	
17. Name (Typed or Printed):		18. Date (m d y):		22. Name (Typed or Printed):		23. Date (m d y): Dec 17 2013	
User/Installer Responsibilities							
It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.							

Exhibit 3: 8130-3 Report without Shelf Life Exp. Date.

1. Approving National Aviation Authority/Country: FAA/United States		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG				3. Form Tracking Number: COM-000240-2013	
4. Organization Name and Address: Air Evac EMS INC., FAA CRS# QEV436K, 720 Bratton Ave., West Plains, MO 65775 5678945678905436485438583595854580946897890789579 Comments					5. Work Order / Contract / Invoice Number: SWO-000099-2013		
6. Item:	7. Description:	8. Part Number:	9. Eligibility:	10. Quantity:	11. Serial/Batch Number:	12. Status/Work:	
1	0-1" OUTSIDE MICROMTR	103-259	N/A	1.	269-SL-01	Overhauled	
13. Remarks: TSO: N/A TT: N/A CERTIFIED <div style="border: 1px solid red; height: 15px; width: 150px; margin: 5px auto;"></div>							
A complete description of work performed and parts installed is on file at the above referenced organization under the work order and system tracking reference number indicated in blocks 3 and 5. For European shipments: Certifies that the work specified in block 12/13 was carried out in accordance with EASA Part 145, and in respect to that work the component is considered ready for release to service under EASA Part 145. Approval Number EASA 145.5506.							
14. Certifies the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in a condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 13.			19. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 13 Certifies that unless otherwise specified in Block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.				
15. Authorized Signature:		16. Approval/Authorization No.:		20. Authorized Signature:		21. Approval/Certificate No.:	
17. Name (Typed or Printed):		18. Date (m d y):		22. Name (Typed or Printed):		23. Date (m d y): Dec 17 2013	
User/Installer Responsibilities							

D. Facility to modify Part # for lot & none controlled parts

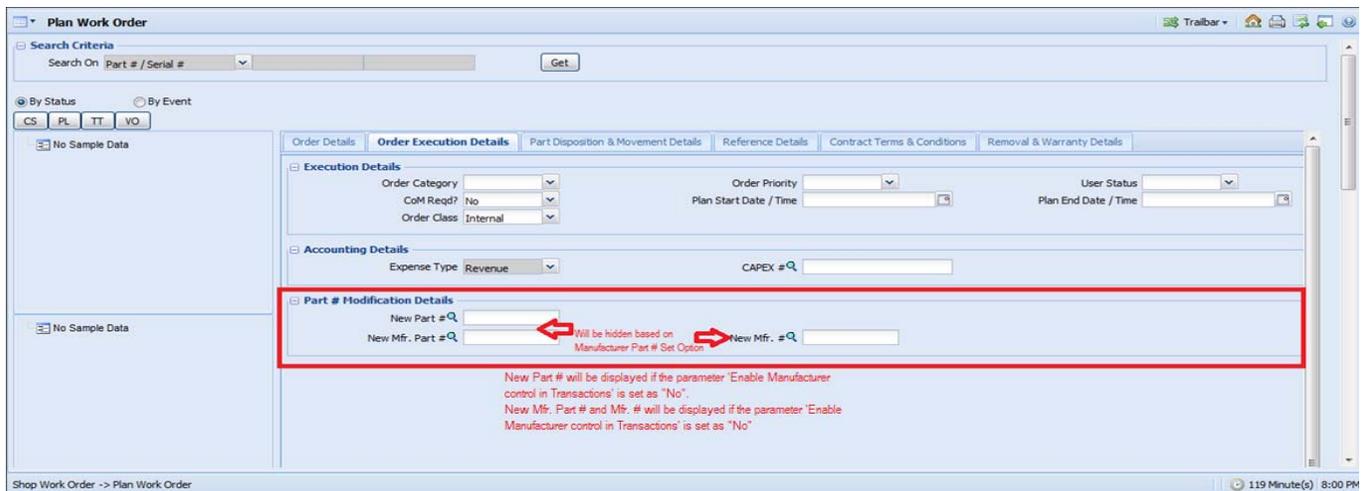
Reference: AHBE-11615

Background

In Shop work order, user can create and plan work order for tasks to be executed on the parts. Now, the user will be able to modify the part # of lot / none controlled part through the shop work order by providing the New Part #.

Change Details

A new control, New Part #, has been added in the order execution details tab of **Plan Work Order** screen. This control will be visible to the user only if the Job Type of the shop work order is selected as "Piece Part".



To modify the part # in a shop work order with multiple cores, the New Part # column has been provided in the **Update / Split / Main** core page. The column will be visible only when the 'Associate Multiple Cores' radio button is selected.

Enhancement Notification

SWO Details

SWO # Order Description Qty.
Customer # Customer Order # Cust. Requested Date
Prom. Del. Date Proj. Completion Date Target Date

Update Option

Associate Multiple Cores Split Work Order

Associated Main Cores

#	Part #	Mfr. Part #	Mfr. #	Serial #	Lot #	Mfg. Lot #	Mfg. Serial #	On WO Qty.	New Part #	New Mfr. Part #	Mfr. #	Deposit
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

Update Multiple Core Details

Shop Work Order -> Associate Main Cores to Work Order 119 Minute(s) 9:14 PM

Workflow:

- The New Part # control will be visible in the **Order Details** tab and the **Associate Main Cores** multiline only when the Job type of the work order is "Piece Part".
- The user can provide part # in the New Part # control and save it against the work order.
- The New Part # can be provided only for Lot / None controlled parts and not for serial controlled parts, provided the work order is in "Draft", "Fresh", "Planned" or "In-progress" status.
- The part # on which the work order was created, will be modified as the New Part # on completion of the work order.
- On modification of Part #, new Lot # will be generated for Lot controlled parts.
- The work order, against which part # is modified, cannot be reopened.
- The user can view the updated part # details in the Modified Part # / Modified Lot # fields in **Order Execution Details** tab of **Review Work Execution** screen, for work order without multiple cores. In case of multiple cores, the same can be viewed in the **Additional Main Cores Details** multiline.

Enhancement Notification

The screenshot displays the 'View Workorder Details' application window. The interface includes a top navigation bar with tabs for 'Order Details', 'Order Execution Details', 'Part Disposition & Movement Details', 'Reference Details', 'Contract Terms & Conditions', and 'Removal & Warranty Details'. The 'Order Details' tab is active, showing the following information:

- Order Details:** SWO # SWO-SWO-000220-2014, Order Description Repair, Status Completed, Job Type Piece Part, Primary Work Center # YUL-100-00, Event # SWO-000220-2014.
- Main Core Details:** Part # 2800-P2, Qty. 1.00000000, Serial #, Component #, Lot # LOT000311-2013, Multiple Cores No, Stock Status Owned, PDC - PART ACCOUNT GROUP, Part Description ~~2800-P2~~, Modified Part # jinx, Modified lot # LOT001403-2014.
- WorkScoping Details:** Workscoping Status Initial, Revision #, Action on Revision.

At the bottom of the window, there is a 'Get Details' button and a status bar indicating 'Ezee View -> Ezee View' and a timer showing '59 Minute(s) 6:30 PM'.

E. Facility to Provide Work Center / Repair Agency During Disassemble

Reference: AHBE-10104

Background

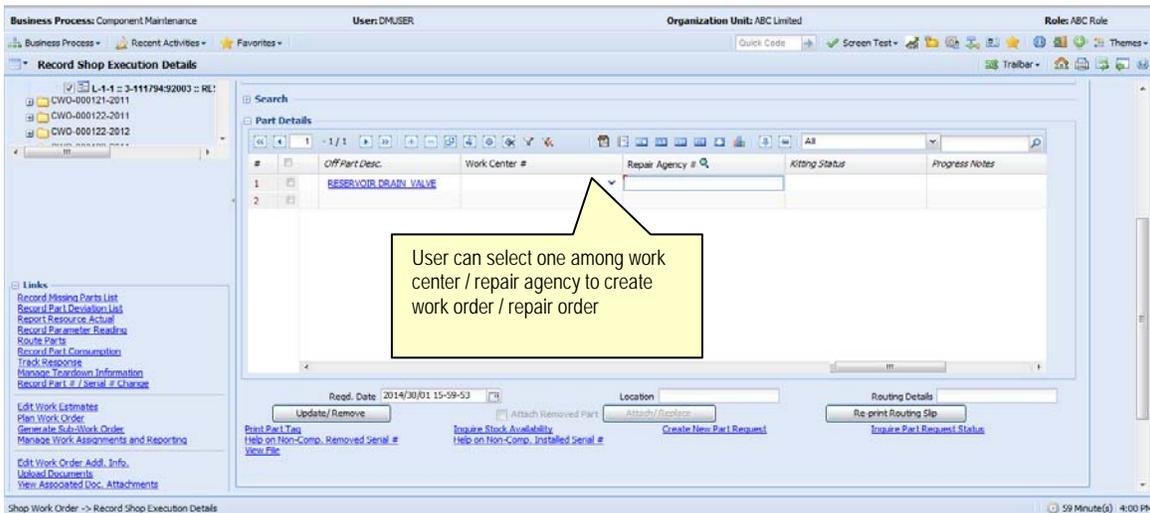
Ramco's Aviation Solution supports auto generation of work order or repair order during part disassemble, as part of shop work order execution. Shop work order / repair order is generated based on Execution Facility (in-house/outsource) identified for the part (**Maintain Maintenance Info** page).

When a piece part is removed in the **Assemble and Disassemble Core** tab, a shop work order will be generated (even if both in-house and outsource information is available in the part maintenance information) based on the disposition code selected during part removal.

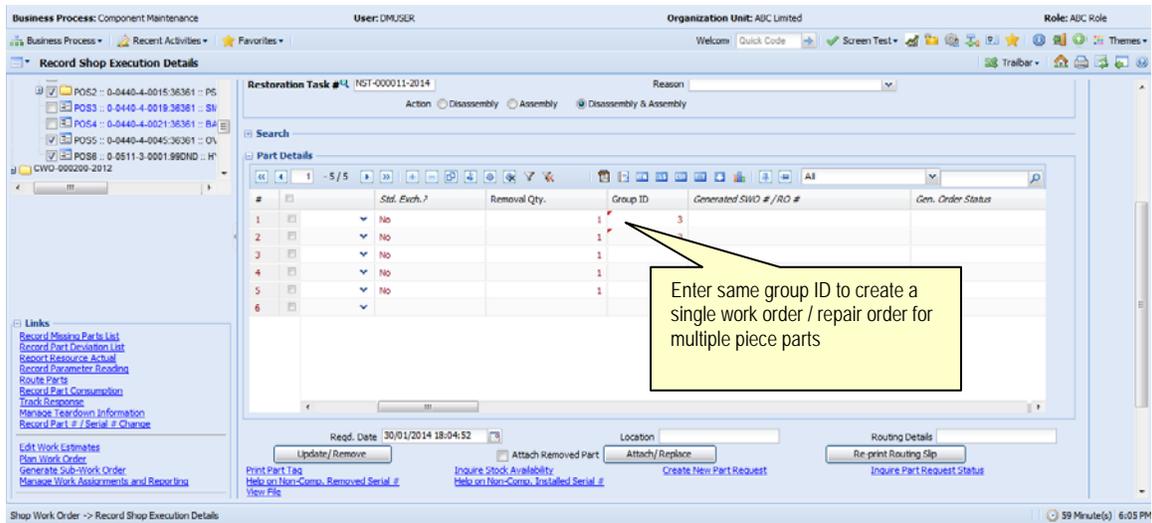
Current enhancement facilitates the user to provide work center / repair agency during disassemble based on which shop work order or repair order will be generated.

Change Details

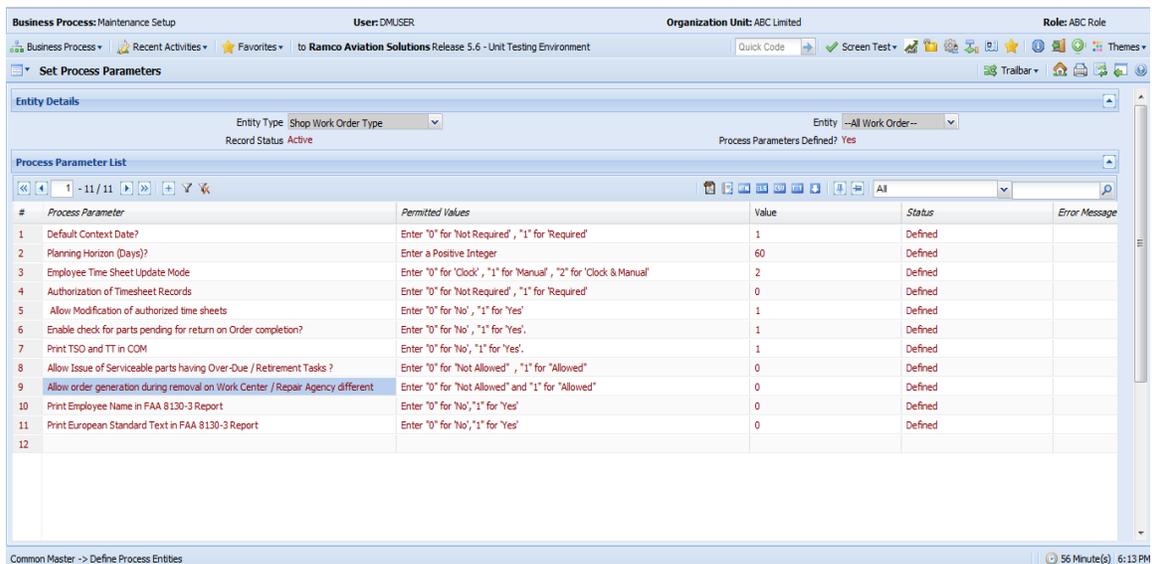
1. The work center column and repair agency column has been modified in the **Assemble and Disassemble Core** tab of **Record Shop Execution Details** page.
 - a) The 'Work Center' column has been changed to a drop down list. The user can create a work order by selecting any work center which has the station same as the primary work center of work order.
 - b) The 'Repair Agency' column has been provided with help for the user to create a repair order by selecting a repair agency that is approved for the part.
 - c) When the user provides both the information, system will mandate the user to provide only one among work center or repair order.



- The user can also generate a single work order / repair order for multiple piece part removals by providing the same group ID in the multiline of **Assemble and Disassemble Core** tab.



- The new process parameter “Allow order generation during removal on Work Center / Repair Agency different from part maintenance info definition?” has been added under the entity “All Work Order” under the entity type “Shop Work Order Type”. The user will be restricted from entering a Work Center / Repair Agency, different from that identified in the **Maintain Maintenance Info** screen for the part if the value is set as “Not Allowed”.



F. Ability to default Certificate of Conformance during Main Core return

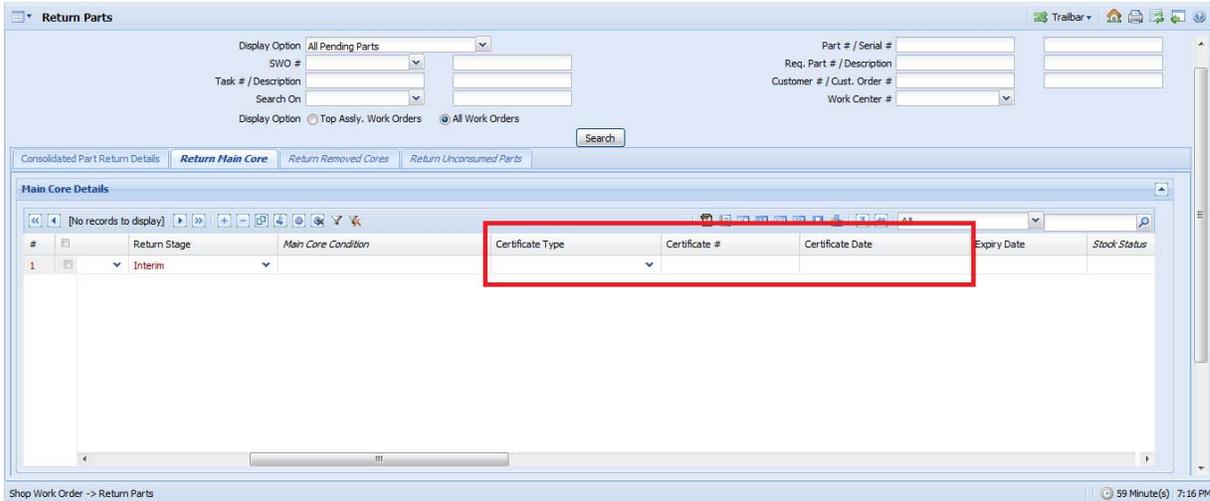
Reference: AHBE-12550

Background

During part manufacturing, a Certificate of Conformity is granted to the part that meets a minimum set of regulatory, technical and safety requirements. With the current enhancement, the Certificate of Conformance will be defaulted during main core return for work orders with Job Type as “Make”.

Change Details

If the Job Type of the work order is “Make”, the latest certificate of conformance details will be displayed in the **Return Main Core** tab of the **Return Parts** screen.



For a work order of Job Type “Make”, the latest certificate of conformance details will be displayed on following conditions:

- If multiple Certificates of Conformance are available in ‘Approved’ status.
- If both Certificate of Conformance and Certificate of Maintenance are available in ‘Confirmed’ status.
- If only the Certificate of Conformance is available in “Confirmed” status.

If none of the above conditions are satisfied, the latest Certificate of Maintenance details will be displayed if available.

WHAT'S NEW IN COMPLIANCE MANAGEMENT?

A. Ability to update all the Program information through “Initialize Maintenance Program and Update Compliance” interface

Reference: AHBE-6689

Background

Currently in Ramco Aviation solution, user can initialize the program tasks through **Initialize Maintenance Program and Update Compliance** interface.

Modification of task attributes like the ‘Schedule Type’, ‘Update Basis’ and other program details requires program revision.

This feature synchronizes **Initialize Maintenance Program and Update Compliance** interface with the Maintenance Program.

Change Details

In Update Basis cluster, the display option has been categorized as below:

- Compact View
- Detailed View

Compact View provides the visibility of Primary information of Program tasks for the user and allows performing some basic transactions such as Task addition, Schedule addition, Schedule modification and Schedule Deletion. In Compact View, if user updates the task information, the system automatically updates the information to respective Maintenance Program.

Detailed view provides the detailed information of Program tasks as viewable in Maintenance Program. User can provide all the program details for a task through the **Initialize Maintenance Program and Update Compliance** screen, without affecting the current revision of respective Maintenance program. On-Wing tasks can be added to Aircraft Specific Maintenance Programs from **Initialize Maintenance Program and Update Compliance** screen.

When **Initialize Maintenance Program & Update Compliance** screen is launched from **Tech Record Work Space** then,

- Search option will not be visible. User can add or modify the task details only for the Maintenance object selected in Work Space.
- If Maintenance Object is “Aircraft”, user will not be able to view the Part # and Serial # columns in the task detail grid. User can modify the attached component program by selecting the component in Tech Record Work Space tree.
- If the Maintenance Object is “Component”, then user can add / modify the task information only for the selected component and its assemblies.

Exhibit 1:



Exhibit 2:

Following are the controls added in the **Initialize Maintenance Program and Update Compliance** screen.

Control Name	Data Type	Control Type
Positive Tolerance	Char	Edit
Negative Tolerance	Char	Edit
Alert Date	Date-time	Display only
Alert Value	Char	Edit
Terminating Date	Date-time	Edit
Terminating Value	Char	Edit
Update Basis	Char	Drop Down
Schedule Type	Char	Drop Down
Eng. Doc #	Char	Edit Help
Eng. Doc Rev #	Char	Edit
Position Code	Char	Edit Help
MPD Group	Char	Drop Down
Default Exe. Priority	Char	Drop Down
Execution Type	Char	Drop Down
Level Code	Char	Edit Help
Sch Exec Rule	Char	Drop Down
Deferment Policy	Char	Drop Down
Expense Type	Char	Drop Down
Work Centre	Char	Edit Help

B. Facility to Upload Discrepancies

Reference: AHBE-13258

Background

In cases where Aircraft Maintenance is outsourced, discrepancies that were identified and closed externally needs to be tracked against Execution reference document to have track of history as well as serve reliability analysis.

Maintain Discrepancy Information screen is enhanced to facilitate the above requirement. Here discrepancies can be uploaded in closed status or open status against an Aircraft Maintenance Execution Document reference.

Change Details

On launch of the **Maintain Discrepancy Information** screen, radio button Create / Update Discrepancy (Exhibit 1) and Upload Discrepancy (Exhibit 2) will be available for user to select the screen mode.

- A. Create / Update Discrepancy – Existing functionality of **Maintain Discrepancy Information** is retained.
- B. Upload Discrepancy
 - a. Facilitates bulk upload of discrepancies.
 - b. Discrepancies can be uploaded in Open / Closed status for Open Aircraft Execution documents.
 - c. Discrepancies can be uploaded in Closed status for Closed Aircraft Execution Documents.



Note: Discrepancies can be created for Discrepancy type Non – Routine or MIREP



Corrective Actions needs to be entered for discrepancies in closed status.



Sign-off information needs to be entered based on the Package type of the Aircraft Execution Document #.

Exhibit 1: Create / Update Discrepancy

Maintain Discrepancy Information

Create / Update Discrepancy Upload Discrepancy

Primary Search Criteria | Additional Search Criteria

Display Option: Open Discrepancies
Record Status: [Dropdown]
Log Item #: [Text]

Maint. Object: [Dropdown]
Discrepancy Category: [Dropdown]
Deferral Type / Item #: [Dropdown]

Discrepancy Type: [Dropdown]
ATA #: [Text]
Discrepancy #: [Text]

[Search]

Discrepancy Details

[No records to display]

#	Aircraft Reg #	Component #	Part #	Serial #	Discrepancy Type	Discrepancy #	Discrepancy Description
1					MIREP		

Exhibit 2: Upload Discrepancy

Maintain Discrepancy Information

Create / Update Discrepancy Upload Discrepancy

Upload Discrepancy Details

#	Execution Ref #	Aircraft Reg #	Log Item #	Discrepancy Type	Discrepancy No	Discrepancy Description	ATA #
1				Non-Routine			
2				Non-Routine			



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