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RAMCO AVIATION SOLUTION
VERSION 5.9
USER GUIDE
RELIABILITY
MANAGEMENT

ABOUT THIS MANUAL

This manual briefly describes the basic processes and functions in Ramco Aviation Solution.

WHO SHOULD READ THIS MANUAL

This manual is intended for users who are managing the Aviation industry processes and are new to Ramco Aviation Solution. This manual assumes that the user is familiar with the Aviation Industry nomenclatures and systems based software.

HOW TO USE THIS MANUAL

Ramco Aviation Solution provides extensive Online Help that contains detailed instructions on how to use the application. Users are suggested to use this manual for specific references, along with the Online Help. This manual contains enough information to help the users perform the basic tasks and points toward the Online Help for more detailed information.

HOW THIS MANUAL IS ORGANIZED

The User Guide is divided into 5 chapters, 3 Addendums and index. Given below is a brief run-through of what each chapter consists of.

Chapter 1 provides an overview of the entire **Reliability Management** business process. The sub-processes are explained in the subsequent chapters.

Chapter 2 focuses on the **Reliability Analysis Setup** tasks.

Chapter 3 describes **Component Removal Assessment Data**

Chapter 4 dwells on the **Report Generation** tasks including upload of operational data from other business processes as a prelude to reliability reporting.

Chapter 5 elaborates on the **Reliability Setup** tasks including Reliability process parameters, Reliability fleets and Reliability Alert definitions.

The **Index** offers a quick reference to selected words used in the manual.

DOCUMENT CONVENTIONS

‣ The data entry has been explained taking into account the "Create" business activity. Specific references (if any) to any other business activity such as "Modify" and "View" are given as "Note" at the appropriate places.

‣ Boldface is used to denote commands and user interface labels.

‣ Example: Enter Company Code and click the Get Details pushbutton.

‣ Italics used for references. Example: See Figure 1.1.

‣ The ✎ icon is used for Notes, to convey additional information.

REFERENCE DOCUMENTATION

This User Guide is part of the documentation set that comes with Ramco Aviation Solution. The documentation is generally provided in two forms:

‣ The Documentation CD in Adobe® Systems' Portable Document Format (PDF).

‣ Context-sensitive Online Help information accessible from the application screens.

WHOM TO CONTACT FOR QUERIES

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1 INTRODUCTION

The reliability analysts/engineers carry out periodical analysis of fleets of aircraft to ascertain their utilization and performance as part of their operations. The conclusion of this analysis is the generation of reliability reports, which is submitted to regulatory authorities as per statutory obligations. The Reliability Analysis process in the Reliability Management process chain provides analytical and reporting tools to generate a diverse range of reliability reports. A set of preconfigured reports for an aircraft fleet can be generated at the click of a button. These reports provide crucial and wide ranging information on areas of aircraft and component reliability. Information including unscheduled and scheduled removals of parts, MIREP and PIREP discrepancies, fleet/aircraft utilization and operational interruptions of aircrafts are highlighted in these reports. Analytical tools provide the ability to query and find the operational/maintenance history of parts associated with a reliability fleet as well as discrepancy details of aircraft.

The premise of reliability reports are reliability fleets, fleets of aircraft created exclusively for reliability analysis and reports. To facilitate analysis across reliability fleets, groups of fleets called as reliability report groups

can also be created. This allows for the generation of reliability reports for all the reliability fleets associated with the group with a single mouse click.

The sub-processes comprising the Reliability Analysis can be classified into **Setup**, **Report Generation** and **Analytical tools**.

Setup tasks enable users to maintain reliability fleets, quick codes and report generation parameters.

Report Generation tasks help users to upload operational data from other business processes as a prelude to reliability reporting. Further, discrepancy data can be cleansed prior to report generation for improving their statutory relevance. As a culmination of reliability analysis, the entire list of preconfigured reports is generated for a reliability fleet or for all reliability fleets in a reliability report group.

 Analytical tools render online enquiries/reports and help users to evaluate crucial information

2 RELIABILITY ANALYSIS SETUP

This chapter addresses the tasks of setting up master data for generating reliability reports.

Reliability reports provide consolidated information for a reliability fleet. This kind of information can be generated for all reliability fleets in a reliability fleet group, which helps to analyze the reliability of aircraft and components associated with various reliability fleets. To facilitate generation of complex and advanced information required for reliability reports, you must set up the following master data,

- Report generation parameters

- User-defined variables called quick codes

- Fleets of aircraft called Reliability fleets

- The process flow for Reliability Analysis master setup is depicted by the following chart
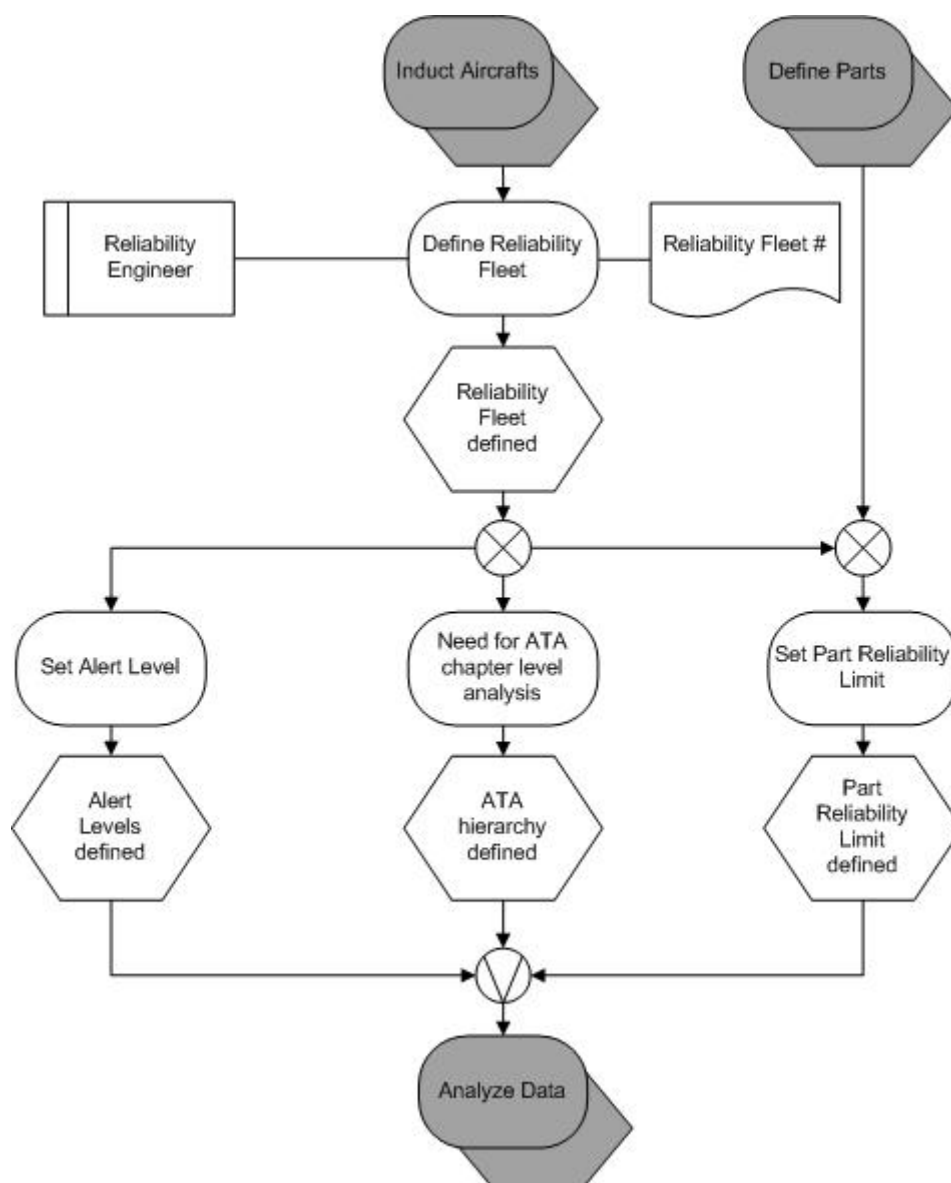
Chart 2.1: Defining reliability fleet

SETTING OPTIONS AND QUICK CODES FOR RELIABILITY REPORTS

As a vital pre-requisite to the reliability reporting process, you must define parameters prior to creating reliability fleets and generating reliability reports. See Addendum: List of report generation parameters

2.1.1   SETTING OPTIONS FOR RELIABILITY REPORTS

1. Select the **Set Options** link in the **Reliability Analysis** business component. The **Set Options** page appears. *See Figure 2.1.*

Figure 2.1 options for reliability reports

2. In the **Search Criteria** group box, select the **Category** of the option**.**

3. Enter the date of commencement of reliability analysis for the organization unit in the **Initial Start Date for Reliability** Analysis field

4. In the **Option Setting List** multiline, enter any of the permitted values as the **Value** for the parameter. (The **Parameter** column displays all the parameters available in the system.)

5. Select the **Set Options** pushbutton.

2.1.2   MAINTAINING QUICK CODES

You can create and update quick codes required for the report generating process. You can also classify quick codes under specific quick code types and define their basic attributes such as, name, description and status. The quick code types form essential aspects of the reliability reporting process and the quick codes created under the quick code type with status as 'Active' appear as available options for the quick code type field in other activities.

1. Select the **Maintain Quick Codes** link under the **Reliability Analysis** business component. The **Maintain Quick Codes** page appears. *See Figure 2.2.*

Figure 2.2 Maintaining quick codes

2. Select the status of the quick code type in the **Status** field.

3. In the **Quick Code Details** multiline, enter the name and description of the quick code in the **Quick Code** and Description fields

4. Indicate whether the quick code must be the **Default** for the quick code type field in other activities.

5. Set the status of the quick code in the **Status** field.

6. Indicate whether the quick code type is mandatory in the **Mandatory** drop-down.

7. Click the **Maintain Quick Codes** pushbutton.

To delete a quick code:

8. Select the quick code record you want to delete, in the multiline.

9. Select the **Delete** icon in the **Tool** bar above the multiline.

SETTING UP RELIABILITY FLEETS

You can create and maintain fleets comprising aircraft called reliability fleets. These fleets form the basis for generating information for reliability reports. See Addendum: List of pre-defined reports

As a part of this sub-process, you must perform the following tasks,

- Mapping aircraft to a reliability fleet and specifying the period during which the aircraft is associated with the fleet.
- Defining reports for the reliability fleet
- Setting ATA hierarchy for the reliability fleet as well as the ATA reporting level.

Setting the Alert and Watch values for parts to monitor their reliability and signal their impending maintenance tasks/procedures.

2.1.3   MAINTAINING RELIABILITY FLEET

1. Select the **Setup Reliability Fleet** link under the Reliability Analysis business component. The **Setup Reliability Fleet** page appears. *See Figure 2.3.*

Figure 2.3 Maintaining reliability fleets

2. Enter the identification number of the reliability fleet in the **Reliability Fleet #** field.

3. Enter the status of the reliability fleet in the **Status** field.

4. Enter the classification of the reliability fleet in the **Reliability Rep. Group** field

5. Enter the start-date for generating reliability reports that are configured for the reliability fleet in the **Analysis From** field.

6. For defining the delay duration range for a reliability fleet enter the minimum limit of delay duration to be considered as delay for reliability analysis, in the **Reportable Delay (In Minutes)**.

7. Enter the maximum limit of delay duration to be considered as delay for reliability analysis, in the **Delay Limit (In** Minutes).

8. Enter the Target Dispatch Reliability for the fleet.

9. Enter the employee code of the planner for the fleet in the **Planner Code**.

10. Click the **Update** Reliability **Fleet Details** pushbutton.

2.1.4 MAPPING AIRCRAFT TO RELIABILITY FLEET

1. Select the **Associate Aircraft to Fleet** link at the bottom of the **Setup Reliability Fleet** page. The Associate Aircraft to Fleet page appears. *See Figure 2.4.*

Figure 2.4 Mapping aircraft to reliability fleet

2. Select the reliability fleet to which you want to map the aircraft in the **Reliability Fleet** drop-down list box. In the **Aircraft List** multiline, enter the following.

3. The identification number of the aircraft you want to map to the reliability fleet in the **Aircraft Reg. #**.

4. The period for which the aircraft remain attached to the fleet in the **Effective From** and **Effective To** fields.

5. Select the **Associate Aircraft** pushbutton.

2.1.5 DEFINING REPORTS FOR FLEET

1. Select the **Configure Report List for Fleet** link at the bottom of the Setup Reliability Fleet page. The Configure Report List for Fleet page appears. *See Figure 2.5.*

Figure 2.5 Configuring reliability reports

2. Select the reliability fleet for which you want to define reports in the **Reliability Fleet** drop-down list box. In the **Reports List** multiline, indicate whether the report must be generated for the fleet, in the **Applicable?** field.

3. Select the **Configure Report List** pushbutton.

2.1.6 SETTING ATA REPORTING LEVELS

1. Select the **Set ATA Reporting Levels** link at the bottom of the Setup Reliability Fleet page. The **Set ATA Reporting Levels** page appears. *See Figure 2.6.*

Figure 2.6 Defining ATA reporting levels for a reliability fleet

2. Select the reliability fleet for which you want to define reporting levels in the **Reliability Fleet** drop-down list box.

3. Select the **Get Details** pushbutton.

In the **ATA Levels** multiline, enter the following,

4. Enter the **ATA #** to be included by the system for reliability analysis / reporting,

5. Indicate whether the ATA must be included for reliability reporting, in the **Analysis Required?** drop-down list box.

6. Enter the **System ATA #** to which the ATA # is mapped.

7. Enter the **Major System ATA #** to which the ATA # is mapped.

8. Select the Set ATA Reporting Levels pushbutton.

2.1.7 SETTING ALERT LEVELS

1. Select the **Set Alert Levels** link at the bottom of the Setup Reliability Fleet page. The **Set Alert Levels for Fleet** page appears. *See Figure 2.7.*

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Figure 2.7 Defining Alert level for a reliability fleet

In the **Fleet Details** group box, enter the following,

2. Select the reliability fleet for which you want to define Alert levels, in the **Reliability Fleet** drop-down list box.

3. Select the **Alert Type** against which you want to define the alert levels. The system displays the following values: PIREP, MIREP, PIREP/MIREP, Delay, Cancellation, Delay/Cancellation, Substitution, Delay/Cancellation/Substitution, NFF, IFSD, Unscheduled Removals, Dispatch Reliability, Daily Utilization FH and Daily Utilization BH.

4. Select the **Get Details** pushbutton.

5. The date from which the alert levels are valid, in the **Effective From** field.

6. Enter Alert Value, Industry Average and Watch Value.

7. Select the **Set Alert Levels** pushbutton.

SETTING MTBUR FOR PARTS

2.1.8   SETTING MTBUR LIMITS FOR PARTS

1. Select the **Set MTBUR Limits for Parts** link under the Reliability Analysis business component. The **Set MTBUR Limits for Parts** page appears. *See Figure 2.8.*

Figure 2.8 Defining Alert values

2. Select the reliability fleet for which you want to define MTBUR Alert values, in the **Reliability Fleet** drop-down list box.

3. Select the **Get** Details pushbutton.

Recording Alert values

1. Select the **Alert Value** tab. *See Figure 2.9.*

*Figure 2.9 Recording Alert **values***

Enter the following in the multiline.

2. The **Part #** for which you want to specify the Alert value.

3. The MTBUR Alert Value in FH.

Recording Support Agreement tab

1. Select the Support **Agreement** tab. *See Figure 2.10.*

Figure 2.10 Defining support agreement

Enter the following in the multiline:

1. The Part # for which you want to specify the MTBUR value.

2. The Supplier # for the part.

3. The Support Agreement Type for the part and supplier.

4. The **MTBUR (FH)** limit quoted in the support agreement.

Recording Watchlist

5. Select the Watchlist tab. See Figure 2.11.

Figure 2.11 Defining watchlist for parts

Enter the following in the multiline.

6. The **Part #** you want to add to the Watch list.

7. The Reason for Inclusion of the part in the Watch list.

8. The Analysis Status of the part in the Watch list.

9. The Analysis Details for the part.

3 COMPONENT REMOVAL ASSESSMENT DASHBOARD

This dashboard essentially provides a comprehensive status of the component removals. You can add parts to the watchlist or remove component reliability entities from the watchlist. The dashboard facilitates the Technical records team to review component reliability in aviation organizations. It is a standard practice in the Aviation industry to generate the Component Reliability reports on the basis of LTR, NFF, MOR, IOR etc...

The Technical Records team in addition to analyzing component reliability can use the screen to perform the following actions:

▶ Add parts with suspect component reliability to watchlist

▶ Remove entities used to evaluate component reliability of parts from the watchlist

▶ Monitor/track parts with suspect component reliability

▶ Add/update repair instructions / guidelines for parts

▶ Update reliability parts / part group information

COMPONENT REMOVAL ASSESSMENT DASHBOARD

This dashboard essentially provides a comprehensive status of the component removals. You can add parts to the watchlist or remove component reliability entities from the watchlist.

3.1.1   WORKING WITH COMPONENT REMOVAL ASSESSMENT DASHBOARD

1. Select the **Component Removal Dashboard l**ink under the Reliability Analysis business component. The **Component Removal Assessment Dashboard** page appears. *See Figure 3.1.*
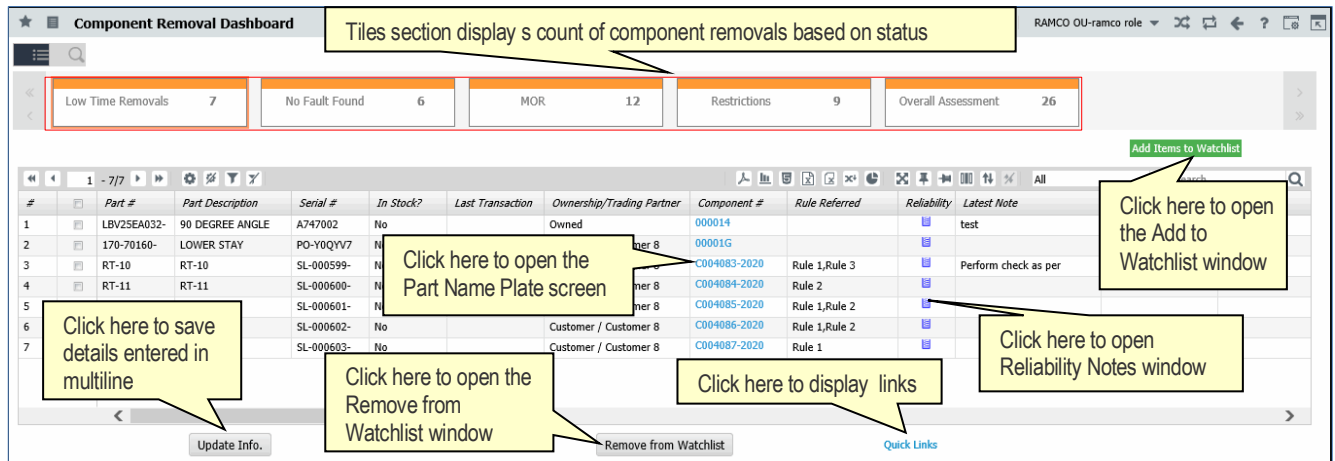
Figure 3.1 Component Removal Dashboard

2. Click the ⊟ icon to view the **Tiles** tab and the tiles.

3. Click the 🔍 icon to search and retrieve parts that you want add / remove from watchlist

4. To add parts / serials to the watchlist, click the **Add Items to Watchlist** button to open the **Add Items to Watchlist** window.

5. In the multiline of the Component Removal Dashboard, enter Reliability Remarks, Removal Comments, Removal Date, Restriction Code and Restriction Remarks.

6. Enter the start and end dates of the period during which the restriction imposed on the part by the restriction code is valid, in the **Restriction Eff. From** and **Restriction Eff. To** fields.

7. Click the **Update Info.** pushbutton to save the details recorded in the page.

8. To remove parts from the watchlist, select the check box for the parts in the multiline and then click the **Remove from Watchlist** pushbutton.

9. To access related activities / screens, use the **Quick Links** drop-down list box to select the link to the required activity.

10. Select the **Remove from Watchlist** link to access the Remove from Watchlist window.

Adding parts / components to watch list

You can add components with uncertain reliability record to watchlist. The components included in the watchlist will be monitored periodically and once their operational condition improves will be taken off the watchlist.

1. Select the **Add Items to Watchlist** link in the Component Assessment Dashboard screen. The Add Items to Watchlist window appears. *See Figure 3.2.*

Figure 3.2 Adding items to watchlist

2. In the multiline, enter **Part #** and **Serial #;** you want to add to the watchlist.

3. Use the **Assessment Type** drop-down list box to select the type of assessment applicable on the part # –serial #.

4. Use the **NFF Level** drop-down list box to select the level for the NFF flag applicable to the part in the watch list.

5. Enter **Assessment Date** on which the part was assessed for LTR, NFF or any other user-defined assessment.

6. Use the **Restriction Code** drop-down list box to select the restriction code applicable for the part in the watch list.

7. Enter **Ref. Doc. #** associated with the component removal transaction, such as repair order # or SWO #.

8. Enter **Restriction Eff. From** date from which the restrictions on the part come into force.

9. Enter **Reliability Remarks** to explain additional details regarding the operational reliability of the component.

10. Click the **Add Items to Watchlist** pushbutton to eliminate the part / component from the watchlist.

Removing entities from watchlist

You can remove the reliability analysis entities mapped to a part. These entities form the basis for ascertaining the reliability of a component.

1. Select the Remove from Watchlist link in the Component Removal Assessment Dashboard screen. The Remove from Watchlist window appears. *See Figure 3.3.*

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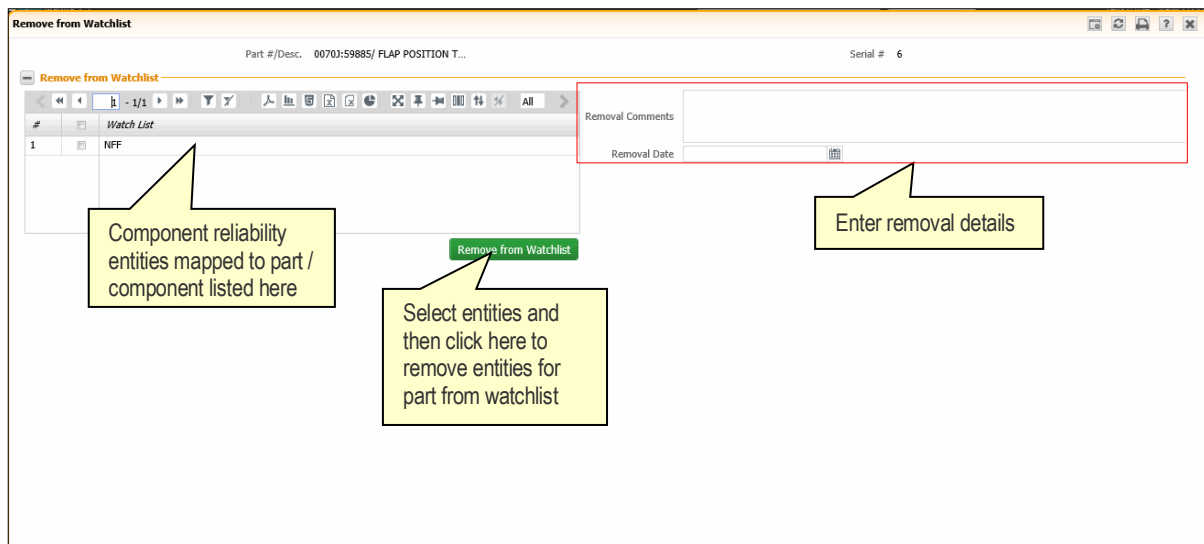
Figure 3.3 Removing entities from watchlist

2. Select the entity you wish to eliminate from the watchlist.

3. Enter **Removal Comment**s and **Removal Date** for the entity you want to remove from the watchlist.

4. Click the **Remove from Watchlist** pushbutton to eliminate the entity from the watchlist.

Managing Reliability Notes

The Manage Reliability Notes window enables you to record the details of repair instructions for the part # / serial #. These repair instructions are essentially reliability notes that evaluate the reliability quotient of the part in the operations.

1. Click on the ▤ icon in the **Reliability Notes** column in the multiline of the **Manage Removal Assessment Dashboard** page for the required part. The **Manage Reliability Notes** window appears. *See Figure 3.1*.
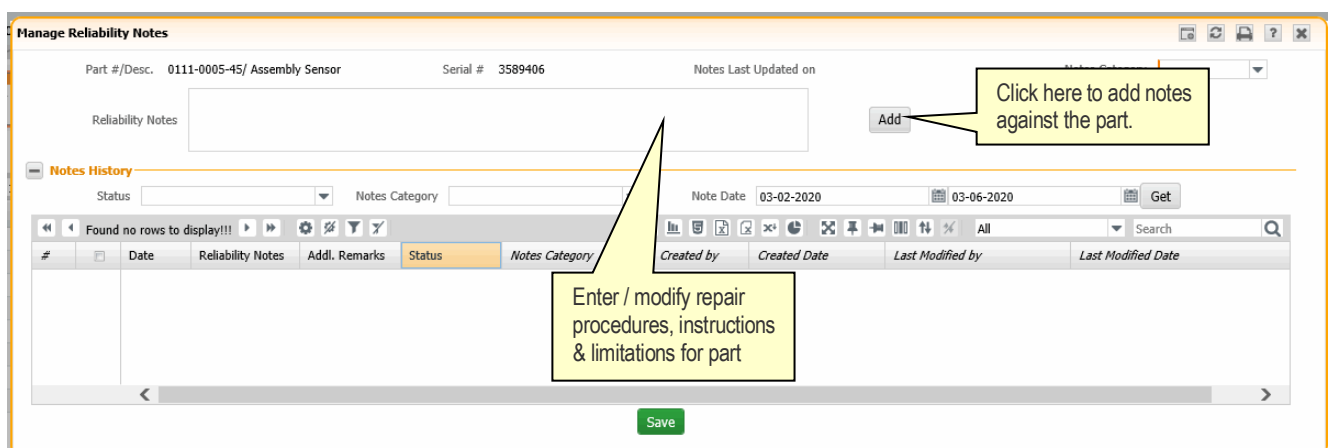
Figure 3.4 Recording Reliability notes

2. Use the **Notes Category** drop-down list box to select the category of the notes you wish to update/ record. *Mandatory*. The drop-down list displays the following: Repair.

3. Enter detailed information on the repair instructions for the removed component in the **Reliability Notes** field.

4. Select the **Add** pushbutton to save the notes and return to the previous page.

4 REPORT GENERATION

The reliability reporting process enables users to generate the entire set of reports configured for a reliability fleet by the click of a single button.

Subsequent to setting up parameters, quick codes, reliability fleets and MTBUR levels for parts, you can initiate the generation of reliability reports.

Prior to the actual report generation process, you must upload the transaction data, the System requires for the generation of information for reports. The relevant data from various business processes such as Component Maintenance, Configuration Management, Discrepancy Management and Aircraft Maintenance Execution is gathered for creation of reports by this task. Further, you must also mark the discrepancies that are required to be included in the reports. If required, you can also refine the discrepancy data for regulatory purposes, preceding report generation.

The next page shows the process flow for analysis of reliability data and generation of reliability reports.
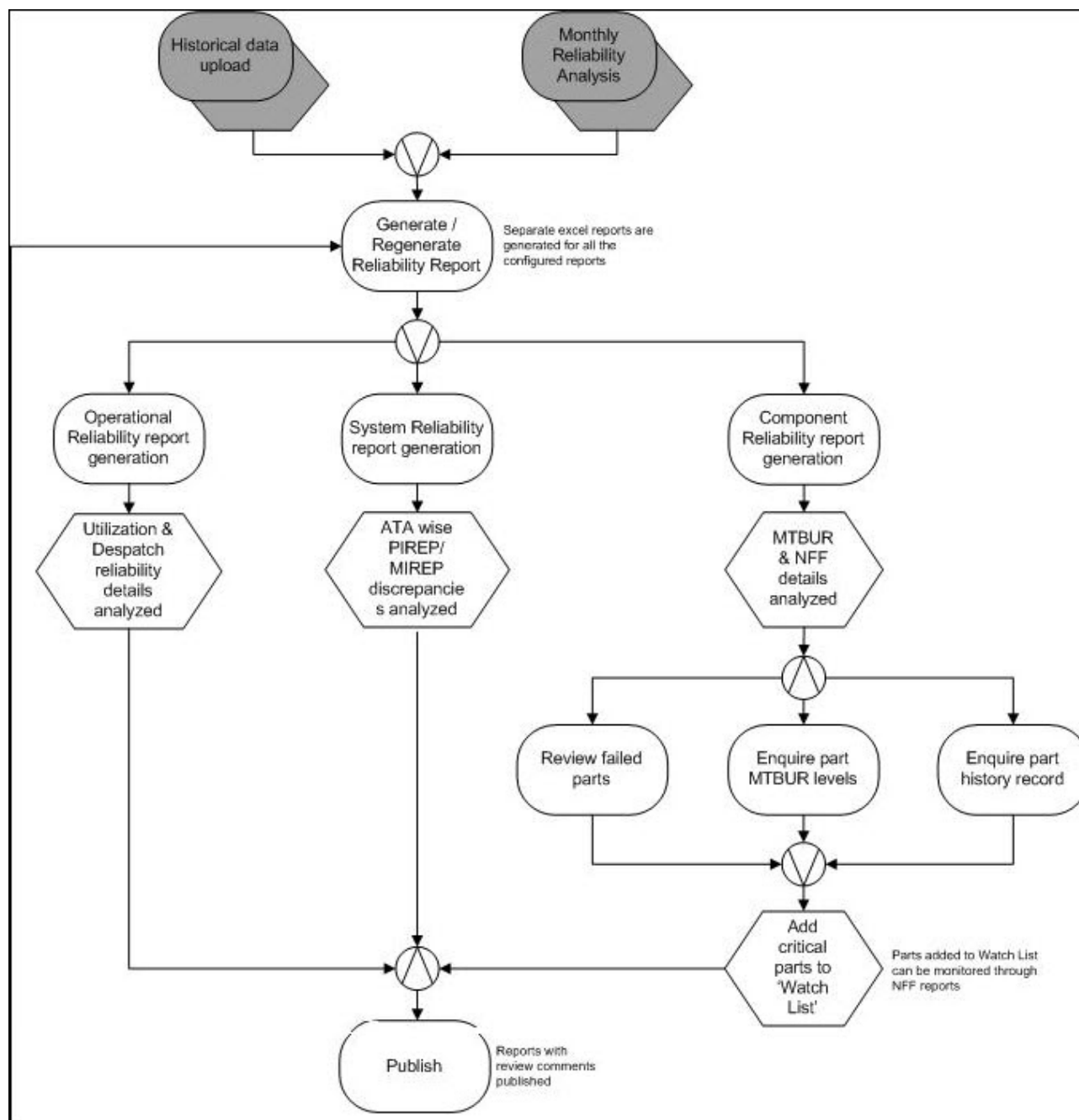
Process flow for reliability reports

GENERATING RELIABILITY REPORTS

4.1.1   UPLOADING RELEVANT DATA FOR RELIABILITY REPORTING

Upload of data required for report generation from various components spanning Component Maintenance, Aircraft, Discrepancy Management and Aircraft Maintenance Execution must be carried out prior to report generation.

1.   Select the Upload Reliability Data link under the Reliability Analysis business component. The Upload Reliability **Data** page appears. *See Figure 4.1.*

Figure 4.1 Uploading reliability data for reliability analysis

2.   In the **Upload Data** group box, select the **Year** and **Month** of data

3.   Select the **Upload** pushbutton.

4.1.2   ANALYZING AND REFINING DISCREPANCY DATA FOR RELIABILITY REPORTING

This task enables you to cleanse discrepancy data as well as include/exclude specific discrepancies from reliability analysis. Discrepancy details including description, ATA # and remedial action can be refined or modified in order to make the Reliability reports become more relevant for regulatory purposes. However, these changes do not update the discrepancy records in the Discrepancy Management and Configuration Management BPC.

By default, the Upload Reliability Data activity retrieves all discrepancies from various components including Flight Log, Occurrence Reporting, Discrepancy Processing, Maintain Discrepancy Information, Aircraft Maintenance Execution and Shop work order for reliability analysis. However, it is imperative that you explicitly indicate whether each discrepancy must be considered for reliability reporting.

1.   Select the **Analyze Discrepancy Details** link under the **Reliability Analysis** business component. The **Analyze Discrepancy Details** page appears. *See Figure 4.2*

Figure 4.2 Refining discrepancy details

2. Use the **Search Criteria** group box to find the discrepancy that you want to modify/include/exclude for reliability reporting

3. Select the **Get Details** pushbutton.

In the **Search Results** multiline, enter the following,

4. The **New Description** for the discrepancy.

5. The **Refined ATA #** for the discrepancy.

6. An elucidation of the remedial action for the discrepancy relevant to regulatory reporting purposes in the **Corrective** Action Summary

7. Include or exclude the discrepancy from reliability analysis in the **Reliability Analysis (Incl. /**

8. Indicate whether the discrepancy occurs frequently in the **Recurring Disc.?** drop-down list box.

9. Use the **R.D. Analysis** drop-own list box to classify the discrepancy for reliability analysis. The list displays all those quick codes defined under the quick code type "RD Analysis" in the **Maintain Quick Codes** activity that are in Active status. This field is mandatory if you have selected "Yes" in the Recurring Disc? field.

10. Use the **Recurring Corrective Action?** drop-down list box to indicate if one-time remedial

11. Use the **Exclude for Reliability Analysis** check box to include or exclude all the discrepancies selected in the multiline, from reliability reporting.

12. Click the Update Discrepancy/MR pushbutton.

4.1.3   GENERATING RELIABILITY REPORTS

This task enables you to generate reliability reports configured for a reliability fleet from a single source. You can also perform the following tasks with regard to generated reports,

▸ Regenerates all the reports defined for the reliability fleet, for the System or current date.

▸ Publishes and terminates the report generation for the reliability fleet.

▸ Updates the User Status of the reliability fleet.

1. Select the **Generate Reliability Report** link under the Reliability Analysis business component. The **Generate Reliability Report** page appears. *See Figure 4.3.*

Figure 4.3 Generating reliability reports

2. In the **Search Criteria** group box, specify the Month / Quarter and the Year for the report in the **Report For** field

3. Select the **Get Details** pushbutton.

In the **Search Results** multiline, enter the following,

4. Select User Status and Archive Status

5. Use the Report Format drop-down list box under the Search Results multiline to indicate the format in which the reports must be generated by the system. The drop-down list box displays PDF and Excel.

6. Select the reliability fleet for which you want to generate reports in the multiline.

7. Click the **Generate** pushbutton.

The status of the reliability report is set to "Generated"

✎ *Note: You cannot generate reports, if the status of the reliability fleet is "Generated" or "Under processing".*

8. Click the **Regenerate** pushbutton.

The system updates sets the status of the reliability report to "Under Processing".

✎ *Note: You cannot regenerate reports, if the status of the reliability fleet is "Under processing" or "Published".*

9. Click the **Update** pushbutton.

The system updates the user status of the reliability fleet.

10. Click the **Publish** pushbutton.

MANAGING COMPONENT REMOVAL INFORMATION

You to review component removal records and then make necessary corrections before the information is taken into consideration for generation of reliability reports.

You can specify filters to retrieve specific component removal records that you want to update. Alternately, you can also record details of new component removals. You must save and confirm these records. The component removal records thus are base lined prior to being picked up for reliability reporting. This ensures that the reports publish information that is error free and also up-to-the-minute.

The component removal information forms the basic data for substantial number of reports generated by Reliability Analysis. These reports are typically generated on a monthly basis for assessments, such as No fault found, Low time removals and MOR / IOR, MTBUR / URR etc. These reports are eventually utilized to evaluate operational reliability of components / aircraft / fleet and comply with the regulatory agencies as well.

1. Select the **Manage Component Removal Info.** link under the **Reliability Analysis** business component. The **Manage Component Removal Info.** page appears. *See Figure 4.4*

Figure 4.4 Updating component removal information

2. To retrieve component removal records, specify enter filters in the Search Criteria group box.

3. Click the **Search** pushbutton.

4. In the multiline, record new / update existing component removal details.

5. Enter **Rem. Date & Time** of the component removal transaction.

6. Select Removal Condition, Removal Reason and Removed Type.

7. Enter **Remarks** to record additional details of component removal

8. Click the **Save** pushbutton to save the details you recorded in the multiline.

   ✎ *Note: On saving the record, the status of the latest revision # of component removal record becomes 'Fresh'. The revision # of the record is incremented by 1. On updating and saving of a confirmed record, the status of the record becomes 'Fresh' and the revision is incremented by 1.*

9. Click the **Confirm** pushbutton to confirm the component removal.

   ✎ *Note: The status of the latest revision # of component removal record becomes 'Confirmed' while the status of the previous version of the 'Revised'.*

MANAGING AIRCRAFT UTILIZATION INFORMATION

You to review and update actual utilization values for aircraft. You can retrieve aircraft utilization values for specific month then correct / update these details. The monthly aircraft utilization values saved / confirmed here will be base lined for reliability report generation. This activity provides an opportunity to record / update / correct utilization details prior to publishing of reports. This ensures that the information generated by the reliability reports is most correct and current.

1. Select the **Manage Aircraft Utilization Info.** link under the Reliability Analysis business component. The **Manage Aircraft Utilization Info.** page appears. *See Figure 4.5.*

Figure 4.5 Updating aircraft utilization information

2. Specify filters in **Search Criteria** group box to monthly utilization details of aircraft. Click the **Search** pushbutton.

3. Update the utilization records of the retrieved aircraft in the multiline. Alternately, you may also enter new utilization records for aircraft in the multiline.

4. Enter **Aircraft Reg. #** for which you want to record utilization details.

5. Enter **Utilization from Date** and **Utilization to Date** to specify the start and end dates of specific month for which the utilization details have been retrieved / displayed for the record.

6. Use the **Parameter** drop-down list box to select the parameter that is considered for the reliability analysis for the aircraft. The drop-down lists all the parameters mapped to the aircraft.

7. Enter current **Value** for the parameter hat is considered for the reliability analysis for the aircraft.

8. Use the **Parameter Value** drop-down list box to select the type of the parameter value. The drop-down list box displays Actual and Planned.

9. Click the **Save** pushbutton to save the details you recorded in the multiline.

   ✎ *Note: On save, the status of the aircraft utilization record becomes 'Fresh' and the revision # of the record is incremented by 1. In this status, the record can be modified or deleted. If a confirmed record is updated and saved, the status of the record becomes 'Fresh' and the revision # is incremented by 1.*

10. Click the **Confirm** pushbutton to confirm the utilization details of aircraft.

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✎ *Note: The status of the current aircraft utilization record becomes 'Confirmed'. The status of the previous revision becomes 'Revised'.*

To retrieve and save actual parameter values for the aircraft for specific month

1. Select the aircraft for which you want to retrieve actual parameter values in the multiline.

2. Click the **Get Utilization** pushbutton.

3. You can modify the retrieved parameter value in the "Value" column of the multiline and then click **Save** to save the record.

5 RELIABILITY SETUP

The **Reliability Setup** business component under the **Reliability Analysis** BPC enables the maintenance planners to define the framework for reliability analysis reporting as stipulated by international aviation regulatory bodies.

In this component, you can setup reliability fleets primarily for component reliability analysis and report generation. These can comprise of aircraft belonging to varied models, ownerships and aircraft groups. Alternately, you can create fleets exclusively for specific model, ownership of aircraft groups also.

Next, you can define rules for disseminating alerts to mechanics across the organization with regard to component replacements. You can derive rules based on the business operations and policies of the organization. Rules are essentially expressions of multiple arithmetic expressions built comprising variables, conditional operators and rule operators. For example, an alert can be published, if unscheduled removals cross over 200 and attachments cross 100 in a month.

SETTING RELIABILITY PROCESS PARAMETERS

You can create, update and view entities under specific entity types associated to component reliability analysis. You can then add process parameters under specific entities to leverage the reliability analysis process for components.

You can then set specific value for process parameters so as to control the behavior of Component Reliability process. You can also activate them to facilitate their usage or inactivate them to restrain their usage.

5.1.1   CREATING ENTITIES

You can create, update and view entities under specific entity types for component reliability. You can specify the description of the entities and set their status.

1. Select the **Set Reliability Process Parameters** link under the **Reliability Setup** business component. The **Set Reliability Process Parameters** page appears. *See Figure 5.2*.

Figure 5.1 Setting Reliability entities

2. In the **Entity Details** multiline, select **Entity Type** under which you want to create new entity.

3. Enter name of the new entity in the **Entity** field**.**

4. Enter **Description** for the new entity.

5. Select **Status** for the entity from the drop-down list box. To enable the usage of the entity, select Active. Contrarily, select Inactive to restrict the usage of the entity in other activities.

6. Click the **Set Parameters** pushbutton to save input details.

7. Alternately, to update / view entities, select **Entity Type** and **Status** of entities in the **Search Criteria** section.

8. Click the **Get Details** pushbutton to retrieve entities that match criteria.

9. Modify the required fields in the multiline and then click the **Set Parameters** pushbutton to save the changes.

5.1.2 DEFINING PROCESS PARAMETERS

You can set the value for the process parameters under specific entity type and entity, which can then be used to leverage the Component Reliability analysis process. The process parameters are system-defined and each of them is associated with specific entity type, entity and fleet type combination.

1. Select the **Set Process Parameters** link in the **Set Reliability Process Parameters** screen. The **Set Process Parameters** page appears. *See Figure 5.3.*

Figure 5.2 Setting Reliability Process parameters

2. Under **Entity Details**, select **Entity Type**, **Entity**, and **Fleet Type** of the process parameter for which you want to set value.

3. In the **Process Parameter List** multiline, enter **Value** for the process parameter.

4. Select the **Save Process Parameters** pushbutton.

MANAGING FLEET DEFINITION

1. Select the **Manage Fleet Definition** link under the **Reliability Setup** business component. The **Manage Fleet Definition** page appears. *See Figure 5.4*.

Figure 5.3 Creating Reliability fleet

2. Select the **Create** radio button.

3. Enter **Fleet #** and **Description** for the reliability fleet.

4. Use the **Applicability** drop-down list box to select the maintenance object associated with the fleet.

5. Use the **Status** drop-down list box to select the status of the fleet. The drop-down list box displays the following statuses. Fresh, Active and Inactive.

   ✎ *Note: On successful creation of the fleet, its status becomes 'Fresh'.*

6. Enter the date from which the reliability analysis period commences, in the **Analysis Date** field. This implies the reports generated henceforth will include data from this date forward.

7. Use the **Fleet Type** drop-down list box to select the user-defined fleet type of the fleet.

8. Use the **Fleet Category** drop-down list box to select the user-defined category of the fleet.

9. Use the **User Status** drop-down list box to select the user-defined status of the fleet.

10. Click the **Create Fleet** pushbutton to save the entered details.

The screen automatically switches to the Edit mode, the Edit/View radio button gets selected and the tabs **Aircraft Effectivity**, **Report Applicability** and **Part Effectivity** appear on creation of the fleet.

5.1.3 RECORDING AIRCRAFT EFFECTIVITY FOR FLEET

You can create a fleet comprising specific aircraft, or aircraft belonging to specific models or specific groups. You can also create a fleet for a specific ownership exclusively. This would mean all the aircraft owned by a customer or owned by the organization or leased out or leased from external sources will become part of the specific fleet. You can also set the period during which the aircraft will be effective for the fleet for reliability reporting purpose.

1. Select the **Aircraft Effectivity** tab in the **Manage Fleet Definition** page. This is the default tab. *See Figure 5.5*.

Figure 5.4 Recording aircraft effectivity for reliability fleet

2. Enter **Aircraft Reg. #;** you want to associate with the fleet.

3. Enter **Aircraft Model #;** you want to associate with the fleet.

4. Use the **Aircraft Group #** drop-down list box to select the aircraft group you want to associate with the fleet.

5. Use the **Ownership** drop-down list box to select the ownership of the aircraft. The drop-down list box displays the following: Customer, Owned, Leased and Leased out.

    ✎ *Note: You can exclusively create a fleet for an ownership by selecting an option in this field and by not specifying aircraft, aircraft model and aircraft group. Click the **Edit Part Requirements** pushbutton.*

6. Enter **Owning Agency #** to specify the owner of the aircraft.

7. Enter **Effective From** and **Effective To** to specify the aircraft effectivity period.

8. Click the **Save Aircraft Effectivity** pushbutton to save recorded details.

To proceed

▸ Select the Report Applicability tab to specify the reports applicable for the fleet.

▸ Select the Part Effectivity tab to associate parts with the fleet.

5.1.4   RECORDING REPORT APPLICABILITY FOR FLEET

1. Select the **Report Applicability** tab in the **Manage Fleet Definition** page. The **Report Applicability** tab appears. *See Figure 5.6*.

Figure 5.5 Mapping reports to reliability fleet

2. In the multiline, enter **Report Title** for the report to be generated for the fleet.

3. Use the **Part Mapping Group** drop-down list box to associate a user-defined part mapping group to the report.

4. Use the **Applicable?** drop-down list box to indicate whether the report is applicable to the fleet.

5. Enter **Listing Order** to specify the order (place) at which the report will appear in the report book. The order of listing determines the priority of the report in the report book. It is recommended that the order of priority be specified as follows: 1, 2, 3, 4…

6.   Click the **Map Reports** pushbutton to associate reports to the fleet.

To proceed

▸ Select the Aircraft Effectivity tab to associate aircraft associated with the fleet.

▸ Select the Part Effectivity tab to associate parts with the fleet.

5.1.5   RECORDING PART EFFECTIVITY FOR FLEET

This tab will enable you to ascertain the parts that will be effective for the fleet. You can identify the part group and the aircraft model, the parts of which will be effective for the fleet. You can also specify the customer-owned aircraft model, the parts of which will be effective for the fleet. Additionally, you can decide whether the parts effective for fleet must be displayed in the report.

1. Select the **Part Effectivity** tab in the **Manage Fleet Definition** page. The **Part Effectivity** tab appears. *See Figure 5.7*.

Figure 5.6 Recording part effectivity for reliability fleet

2. Use the **Part Mapping Group** drop-down list box to select the part mapping group applicable for the fleet.

3. For the selected part mapping group, select **Part Group**, **Aircraft Model #** and **Customer #.**

   ✍   *Note: This implies all the parts associated with the part group, aircraft model configuration owned by the customer will be effective for the fleet.*

4. Indicate whether the parts from the part group must be listed in the report.

5. Select the **Edit Part Effectivity** pushbutton to save recorded details.

To proceed

▸ Select the Aircraft Effectivity tab to associate aircraft associated with the fleet.

▸ Select the Report Applicability tab to specify the reports applicable for the fleet.

▸ Select the Edit Reliability Parts /Part Group Info. link to update parameter, QPA, GMTBUR and VMTBUR details of the parts effective for the fleet .

5.1.6   UPDATING RELIABILITY PARTS / PART GROUPS INFORMATION

You can modify the parameter, QPA, GMTBUR and VMTBUR details of the parts effective for the fleet. These details of the part are retrieved from the "Manage Customer Specific Recommended Spare Part List" and "Manage Recommended Spare List" pages, which then can be changed in this page. You can define the model effectivity, to indicate the applicability of the access panel task for the aircraft models.

1. Select the Reliability Parts /Part Group Info. link in the Part Effectivity tab of Manage Fleet Definition page. The Reliability Parts /Part Group Info. page appears. *See Figure 5.7.*

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Figure 5.7 Recording Reliability part /part group information

2. In the **Fleet Details** group box, use the **Part Group** drop-down list box to select the part group associated with the fleet. The drop-down list box displays the part groups selected in the **Part Effectivity** tab.

3. Use the **Parameter** drop-down list box to select the parameters to be considered for component reliability. The drop-down list box displays the parameters defined for the part in the **Edit Consumption & Range Parameters** page of the **Maintain Maintenance Info for Parts** activity under the Aircraft business component.

4. Update **QPA**, **GMTBUR** and **VMBTUR** for the parameter of the part. By default, these fields display the values as recorded in the **Manage Customer Specific Recommended Spare Part List** and **Manage Recommended Spare List** pages.

5. Click the **Edit Parts / Part Group Info.** pushbutton to save the details entered in the multiline.

MANAGING RELIABILITY ALERT DEFINITION

You can formulate alert rules for component reliability analysis. You can also modify, update and view the alert rules. These rules determine the milestone at which the alerts will be disseminated and published to the employees in the organization. On receipt of alerts, the mechanics would proceed to execute necessary maintenance tasks.

For example, the milestone in an MRO organization could be 12 unscheduled component removals in a month or 4 attachments in a month. On completion of 12 unscheduled removal or 4 attachments, the alerts will be broadcasted to the designated employees.

The alert rules can be derived based on the preferences / business operations of the organizations. These rules can also be updated so that they remain relevant to the changing business situations faced by the organization.

5.1.7   MANAGING RELIABILITY ALERT DEFINITION

1. Select the **Manage Reliability Alert Definition** link under the Reliability Setup business component. The Manage Reliability Alert Definition page appears. *See Figure 5.8*.

Figure 5.8 Manage Reliability Fleet Definition

2. Use the **Alert Rules For** drop-down list box to select the component reliability entity for which you want to define Alert rules. The drop-down list box displays the following: MTBUR/URR, LTR and NFF.

3. Use the **Rules for** drop-down list box to select the rule definition level for component reliability analysis. The drop-down list box displays values based on the selection in the "Alert Rules for" field. This drop-down list box displays:

    ▸ Generic, if you have selected MTBUR/URR in the "Alert Rules for" field

    ▸ Customer, Aircraft Model, Customer – Model and Generic, if you have selected LTR/NFF in the "Alert Rules for" field

4. Enter **Rule ID** and **Rule Description** for the Alert rule.

5. Click the ✎ icon to open the **Define Rules** window and record details of the rule.

6. Click the **Save** pushbutton to save the rule details.

Defining Rules

1. Select the **Rule Definition** tab.

2. Select **Create** radio button to record new rule.

3. Enter Rule ID and Rule Description.

4. Click the ✎ icon to open the Define Rules popup in the Define Rules column. The Define Rules popup appears.

Mapping Rules

5. Select the **Rules Mapping** tab to map the rule to the customer and aircraft model combination.

6. Specify **Search Criteria** to retrieve the rules that you want to map to the customer and aircraft model combination.

7. Click the **Search** pushbutton.

8. Enter **Customer #** to be mapped to the rule.

9. Select **Aircraft Model #** and **Model Type** to be mapped to the rule.

10. Select **Rule ID** to be associated with the customer and aircraft model combination.

11. Enter **Eff. From Date** and **Eff. To Date** to specify the period in which the rule is valid for the customer and aircraft model combination.

12. Click the **Save** pushbutton.

Recording rules in the Define Rules popup

1. Click the ✎ icon in the **Define Rules** column for the required **Rule ID** in the **Rule Details** multiline. The **Define Rules** window appears. *See Figure 5.9*.
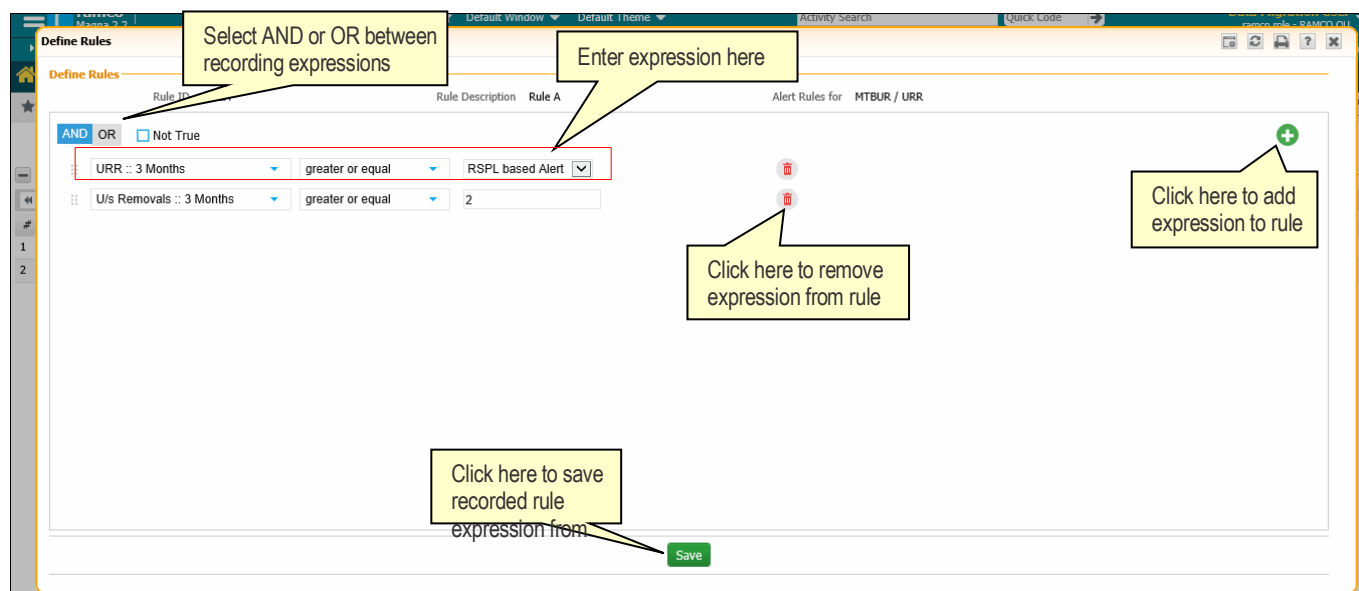
Figure 5.9 Defining rules

The following procedure is based on the example as depicted in the Figure 5.9.

2. Select AND or OR button to set the condition for the rule. Example: URR:: 3 Months GREATER THAN OR EQUAL TO RSPL based Alert AND U/s Removals :: 3 Months GREATER THAN OR EQUAL TO 2 as indicated in the *Figure 5.9.*

3. Select the check box to add **Not True** condition to the expression. Meaning the alert rule will get triggered only if the expression **URR:: 3 Months GREATER THAN OR EQUAL**

TO RSPL based Alert AND U/s Removals :: 12 Months GREATER THAN OR EQUAL TO RSPL based Alert does not hold true.

4. Select the ⊕ icon to add more expressions

5. Use the **First drop-down list** box to select the first variable in the rule expression. The drop-down list box displays options based on the value selected in the **Alert Rules For** field in the **Manage Reliability Alert Definition** page. Example: **URR:: 3 Months, U/s Removals :: 3 Months**

6. Use the **Second drop-down list** drop-down list box to select arithmetic sign to be included between expressions. Example: **greater or equal to**.

7. Use the **Third drop-down list box** drop-down list box to select the second variable in the rule expression. The drop-down list box displays options based on the value selected in the **Alert Rules For** field in the **Manage Reliability Alert Definitio**n page. Example: **RSPL based Alert, 2**.

8. Select the **Save** pushbutton to save the rule.

The saved rule will be displayed in the **Defined Rule Description** field in the **Rule Details** multiline of **Manage Fleet Alert Definition** page.

RELIABILITY PROCESS PARAMETERS

The **Set Process Parameters** page allows you to define or modify process parameters for an entity. You can define various process parameters that impact various processes associated with an entity. For example, you can set a specific attribute of an entity as mandatory or required. You can also set an attribute as not required or not applicable for an entity.

Parameter definition for entities is configurable and can be modified as per the business/operation needs at any point, in the application.

You can find in-depth information on the various entity types/entities and their attributes in the table below.

Process Parameters table

Entity Type: Component Reliability

Entity	Fleet Type	Process Parameter	Permitted Values
User-defined	All Fleet Types	Enable visibility in reliability Dashboard under Overall Assessment	Enter "0" for No "1" for Yes
MTBUR/URR	All Fleet Types	Identify MTBUR Alerts based on	Specify '0' for 'MTBUR Limits for Parts' '1' for 'User defined MTBUR/URR Alert rules'
	All Fleet Types	Run MTBUR Analysis	Specify '0' for 'Daily' '1' for 'Weekly' '2' for 'Monthly'
	All Fleet Types	Automatically add identified Alert Parts to Watch list	Specify '0' for 'Yes' '1' for 'No'
		Level at which MTBUR analysis is to be done	Specify '0' for 'Part level' '1' for 'Part Group level' Note: The "Level at which MTBUR analysis is to be done" parameter can be set as '0' for 'Part level' only if the parameter 'Identify MTBUR Alert based on' is set as 'MTBUR Limits for Parts'
	Individual Fleet Types	Rate Calc. Factor for URR based Alert	

		Multiplication Factor for URR based Alert Computation	
		Number of Quarters to be considered for URR based Alert Computation	
		Report Analysis Frequency	
		Display RSPL based MTBUR Alert in Report	
LTR	All Fleet Types	LTR Tracking for Components	Enter "0" for Required "1" for Not Required
NFF	All Fleet Types	NFF tracking for Components	Enter "0" for Required "1" for Not Required
		NFF confirmation for Components based on	Enter "0" for "Post Repair Confirmation" "1" for "Initial Assessment"
		Event for NFF confirmation for Components sent on External Repair	Enter " for "Repair Quote Completion" "1" for "Work Shop Completion" "2" for "RO Closure"
		Event for NFF confirmation for Components sent on Internal Repair	Enter "0" for "Work Order Completion" "1" for "Work Order Closure".
		NFF tracking for Parts	Enter "0" for Required "1" for Not Required
		No. of levels for Part level NFF tracking	Enter any value from 1 to 3.
		Part level NFF evaluation based on	Enter "0" for Removal Instances "1" for Shop Visits
IOR/JRR/MOR/ URR	All Fleet Types	Component Level Assessment	Enter "0" for Required "1" for Not Required
		Enable visibility in reliability Dashboard	Enter

		under Overall Assessment & Restricted	"0" for No "1" for Yes

6ADDENDUM1: LIST OF REPORT GENERATION PARAMETERS

You must set the parameters as mentioned in the given table to one of the permitted values in the Set Options task. They are mandatory and must be defined as a prerequisite to report generation.

Category	Parameter	Permitted Value
Analysis Options	Basis for Rate computation of Delay	'0' for 'Number of Departures' '1' for 'FH/FC'
Analysis Options	Rate Calculation Factor for FH/FC	'0' for '100' '1' for '1000'
Analysis Options	Rate Calculation Factor for Number of Departures	'0' for '100' '1' for '1000'
Analysis Options	Analysis Period	1 to 12
Analysis Options	Reliability Analysis Level	'0' for 'Reliability Reporting group level' '1' for 'Reliability Fleet level'
Analysis Options	Report Book Generation Level	'0' for 'Reliability Reporting group level' '1' for 'Reliability Fleet level'
Analysis Options	Count of Top ATA# determiners of	1 to 25

Category	Parameter	Permitted Value
Analysis Options	ATA Level for Alert Definition	'0' for 'System ATA#' '1' for 'Major System ATA#' '2' for 'System ATA# & Major System ATA#'
Analysis Options	Formula to calculate Technical Dispatch Reliability in Fleet Reliability Data Report	'1' for '100-((Total number of Technical Operational Interruptions/ Total number of Revenue Departures)*100)' '2' for '100*(FC - Technical Delays) / (FC + Technical Cancellations)'
Discrepancy Deferral Options	Deferral Type 'CDL' to be considered for ADD analysis	'0' for 'Not Required' '1' for 'Required'
Discrepancy Deferral Options	Deferral Type other than 'MEL' to be considered for ADD analysis Note: Deferral Types other than 'MEL' are user-defined and hence may vary based on the organization. You can define deferral options for such deferral types also here.	'0' for 'Not Required' '1' for 'Required'
Occurrence Type Options	Occurrence Type 'Aircraft Related- Maint' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Occurrence Type Options	Occurrence Type 'Aircraft Related- NonMaint' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Occurrence Type Options	Occurrence Type 'Personnel Related' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Occurrence Type Options	Occurrence Type 'Spill' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Occurrence Type Options	Occurrence Type 'Tool / Equipment' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Occurrence Type Options	Occurrence Type 'Vehicle Related' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Occurrence Type Options	Occurrence Type 'Scheduled Maintenance' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Occurrence Type Options	Occurrence Type 'Unscheduled Maintenance' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Flight Operation Options	Flight Operation 'Test Flight' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Flight Operation Options	Flight Operation 'Regular Flight' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Flight Operation Options	Flight Operation 'Training' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'

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Flight Operation Options	Flight Operation 'Positioning' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Flight Operation Options	Flight Operation 'Ferry' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Flight Operation Options	Flight Operation 'Others' to be considered for Reliability Analysis	'0' for 'Not Required' '1' for 'Required'
Component Analysis Options	Basis for Shop visit calculation for SHOP WORK ORDER	'0' for 'Main Core Issue' '1' for 'Certificate of Maintenance' '
Component Analysis Options	Removal Basis for non – components	'0' for 'Maintenance Issue' '1' for 'Component Replacements'
Component Analysis Options	Count of top MTBUR listing	1 to 25
Component Analysis Options	Count of top NFF listing	1 to 25
Display Options	Display Engine Cycles	'0' for 'Not Required' '1' for 'Required'
	Display Cycle Time?	'0' for 'Not Required' '1' for 'Required'
	Display Landing Cycles?	'0' for 'Not Required' '1' for 'Required'

7 ADDENDUM 2: LIST OF PRE-DEFINED REPORTS

The reliability reports are generated in the MS-Excel format with each report comprising one or more worksheets. The reports are classified as follows

▸ Operational Reliability

▸ System Reliability

▸ Component Reliability

The groupings of the reports as well as the key information they provide are explained in the table below.

Sl #	Classification	Report Title	Report Description
1	Operational Reliability	Incidents Analysis by Incident and Incident Type	This report summarizes the occurrence of incidents with respect to Aircraft, Incidents, and Incident Types, for the last 12 months for a selected fleet. The report displays information on the number of technical incidents reported on aircraft in a month for the fleet being analyzed.
2		Aircraft Incident Report	This report would display the details on the occurrence of incidents

Sl #	Classification	Report Title	Report Description
			reported against 3aircraft at the Reliability Report Group level, facilitating comparison across comparable fleets.
3		Aircraft Monthly Utilization Report	This report analyzes the monthly utilization of each aircraft for a fleet. The report also provides fleet operational parameters like monthly average service days, total revenue departures, aircraft wise utilization for last 12 months, total times for aircraft etc.
4		Deferrals & Operational Interruptions Analysis Report	The summary of the 'Acceptable Deferred Defects' for the fleet is reported. Information on the defect count, flight cancellations and substitutions recorded against the fleet, is also provided.
5		Monthly Rate of Delays, Cancellations & Substitutions	This report lists the rate of delays, substitutions and cancellations recorded for aircraft belonging to the fleet.
6		Weekly Delays by ATA & Dispatch Reliability by Station	This report lists the week-wise delays in terms of system ATA, major system ATA and stations. The station-wise dispatch reliability for the fleet is also reported.
7		Operational Interruptions details	This report displays the operational interruptions of a fleet, ATA- wise, for a month.
8		Operat ional Interruptions per System ATA	Operational Interruptions with reference to system ATAs, are reported. The report also identifies the top system ATA and major system ATA, contributing to delay.
9		Fleet Operations Statistics Summary Report	This report analyzes the PIREP rate for each ATA system and aircraft wise monthly flying hours, monthly departures, and monthly aircraft PIREP count and PIREP rate.
10		Fleet Reliability Data Report	Information on fleet size, operating fleet size, flight hours, flight cycles, monthly utilization, operation interruptions, in-flight shutdown and dispatch reliability are provided as part of this report.
11	System Reliability	PIREP Monthly Rate report by System ATA	Analyzes the PIREP discrepancy rate of system ATA, for a fleet.
12		MIREP Monthly Rate Report by System ATA	Analyzes the MIREP discrepancy rate system ATA-wise for a fleet.

Sl #	Classification	Report Title	Report Description
13		PIREP-MIREP Monthly Rate Report by System ATA	System ATA discrepancy rate for a fleet, is analyzed using this report.
14		PIREP Monthly Rate Report by Major System ATA	The report considers both PIREP and MIREP type discrepancies.
15		MIREP Monthly Rate Report by Major System ATA	This report analyzes monthly MIREP discrepancy rate of a fleet major system Ata wise.
16		PIREP-MIREP Monthly Rate Report by Major System ATA	Provides a consolidated analysis of both PIREP and MIREP discrepancy rate for a fleet, major system ATA-wise.
17		PIREP Report ATA details	This report analyzes the PIREP discrepancies for a fleet, ATA-wise.
18		MIREP Report ATA details	This report is for analyzing the MIREP discrepancies for a fleet, ATA- wise.
19		PIREP-MIREP Report ATA details	Consolidates PIREP and MIREP discrepancies for a fleet, ATA-wise.
20		Monthly Aircraft Technical Dispatch Reliability	Report lists monthly aircraft technical dispatch reliability for a fleet.
21		Discrepancy Report in ETOP Aircraft	Report analyzes the discrepancies of ETOP certified Aircrafts at an ATA level.
22	Component Reliability	APU Monthly Reliability Report	This report analyzes the reliability of APU for the aircraft of a fleet. The report displays information regarding the total APU hours, Scheduled APU removals, Unscheduled APU removals, removal rates and other details for a period.
		APU Start Details Report	Report provides the APU start details for the aircraft in a fleet.
		Engine In Flight Shut Downs Report	This report analyzes the details of engine in-flight shut downs reported for the aircraft in a fleet.
		Engine Removals and Shop visits Report	Report analyzing the reliability of engines of all the aircraft mapped to the selected fleet. The report displays information regarding scheduled engine removals, unscheduled engine

Sl #	Classification	Report Title	Report Description
			removals, removal rates, planned and unplanned shop visits and other details.
		Engine Monthly Reliability Report	This report analyzes the reliability of engines of all aircraft in a fleet. The report provides information regarding the engine hours, engine cycles and in-flight shut downs of aircraft in the fleet.
		Part MTBUR Analysis Report	This report analyzes MTBUR details for parts, which have exceeded alert value and support agreement value like SPSA, VPSA. MTBUR for user defined watch list items to be tracked for MTBUR, will also be listed.
		Part NFF Analysis Report	This report will list the NFF instances ATA-wise and list the items on which NFF has been reported.

8 ADDENDUM3 – REPORTS OVERVIEW

The Addendum of the Reliability Management user guide provides an overview of the information generated in each of the Reliability reports offered by the Ramco Aviation product.

Typically, Reliability reports are configured and generated for a reliability fleet based on technical, regulatory and organizational requirements.

The information in the reliability reports are expressed in tabular and graphic forms.

The reasoning and techniques of information generation are explained next:

Data metrics

All data are displayed month-wise for a specific period as defined in the Set Options activity. The months of the pre-defined period for which the information is displayed is based on the Analysis Period attribute in the

Set Options activity. The level of reporting must be defined in the Set Options activity.

Reporting levels

The two level of reporting available for users are Reliability Fleet and Reliability Fleet Group; signified by the Reliability Analysis Level parameter in the Set Options activity.

If the reporting level is set to Reliability Fleet, information in the reports are computed / retrieved for a specific reliability fleet. Alternately, if Reliability Fleet is set as Reliability Fleet Group, the reports contain information computed for a specific fleet only.

✎ *Note: The term reliability fleet must be understood as reliability fleet group in scenarios where Reliability Fleet Group is set as Reporting Level or if a specific report is generated only at the reliability fleet group level.*

For example, if the report is generated for the month of March 16, and the

Analysis Period is set to '12', the graph would show data beginning April,

2015 and ending March, 2016 for the chosen reliability analysis level.

Rate Calculation

Rate Calculation Factor of 100 or 100 used for computing rate of discrepancies, cancellations, delays, interruption, incidents are defined in the Set Options activity.

Discrepancy Count and Rate Computation

Discrepancies must satisfy the following conditions for inclusion in the report,

- The discrepancy must occur in the reported month.

- The record status must not be "Fresh, "No Fault Found" or "Cancelled"

- The discrepancy applicability must be "Aircraft".

- The ATAs of the System ATA must be set to "Yes" for analysis in the Set ATA Reporting Levels page of the Setup Reliability Fleet activity.
- The Reliability Analysis attribute must be set to "Include" for the discrepancy #I, in the Analyze Discrepancy/MR Details" activity.

✎ *Note: A discrepancy is not considered for reporting, if it does not possess ATA #.*

The system computes the discrepancy rate at the reliability fleet level for a System ATA. To ascertain the discrepancy rate, the system takes into account, all the PIREP/MIREP discrepancies reported against a System ATA for all the aircraft attached to a fleet for a specific month.

Month-wise Discrepancy Rate

(Total number of PIREP/MIREP discrepancies for all the aircraft in the fleet

/ Total number of FH for all the aircraft in the fleet) * Rate Calculation

Factor for FH/FC

Monthly Discrepancy Rate for System ATA

Total number of PIREP discrepancies recorded against the System ATA for all the aircrafts in the fleet / Total number of FH for all the aircrafts in the fleet * 1000 FH

The factor of 1000 FH or 100 FH is predefined by the Rate Calculation

Factor for FH/FC attribute in the Set Options activity.

For example, a reliability fleet, Boeing-737 comprises 10 aircraft. And a total of 600 FH was recorded against all the aircrafts for the month of March 2007. The ATA System 23 reported 02 PIREP discrepancies for all the aircraft in the same month. Assuming the status of discrepancies is not Fresh, No Fault Found and Cancelled, the rate of discrepancy for the System ATA 23 for March, 07 would be

(02/600)* 1000= 3.33

Monthly Discrepancy Rate for Major System ATA

(Total number of PIREP discrepancies recorded against the Major System ATA for all the aircrafts in the fleet / Total number of FH for all the aircrafts in the fleet)* 1000 FH

The factor of 1000 FH or 100 FH is predefined by the Rate Calculation

Factor for FH/FC attribute in the Set Options activity.

Considering the previous example, the Major System ATA "Engine" has

13 reported PIREP discrepancies against the 10 aircrafts in the fleet. With the status of the discrepancies not being "Fresh" or "Cancelled", the discrepancy rate for the Major System ATA would be,

(13/600)* 1000=21.67

Computation of Unscheduled removals

The unscheduled removals that satisfy the below-explained conditions only are considered for the report.

For components of every aircraft comprising the reliability fleet, the totaling of the unscheduled removals happens as follows,

Components retrieved from Aircraft Configuration

Sum of Unscheduled and Basic removals for each component from the Component Replacement with the Reason # that is marked for Reliability Analysis in the "Create Reasons for Removals" activity of the Common Masters component. For non-components of each aircraft in the reliability fleet, the system arrives at the sum of unscheduled removals in the following way.

For non-components of aircraft,

The Removal Basis parameter in the Set Options activity forms the basis for the inclusion of unscheduled removals in the report. If this parameter is set to "Component Replacements", the system counts the unscheduled removals from shop work orders and Aircraft Maintenance Execution packages that satisfy the following conditions,

Sum of unscheduled removals for each part from the Component Replacement with the Reason # identified for Reliability Analysis in the "Create Reasons for Removals" activity in the Common Masters.

The status must be Pre-closed / Closed for shop work orders, Closed / Completed for Aircraft Maintenance Execution packages.

If the Removal Basis parameter is set to "Maintenance Issue", the number of unscheduled removals will be the sum of the following, from Aircraft Maintenance Execution packages and shop work orders, the (Issue- Return) quantity of each part for a task or work order with the Planning Type attribute set to "Unplanned".

From Aircraft Maintenance Execution packages, the (Issue- Return) quantity of each part for a material request with the Planning Type attribute set to "Unplanned".

Computation of MTBUR

The NFF information pertaining to all components and non-components of each aircraft in the reliability fleet is retrieved from shop work orders and Repair orders, for the report.

From Shop work orders, the NFF for a part is counted for the report, if

The "Component Condition Changed to" in the "Record Inspection Findings" is "Serviceable".

The status of the shop work order is "Pre-closed" or "Closed". From repair orders, the NFF for a part is counted for the report, if

The "'Confirm Discrepancies Reported" is "No Fault Found".

The status of the repair order must be "Acknowledge", "Amended", "Authorized", "BER Closed", "Quoted", "Released" and "Shipped".

The NFF must occur in the reported month/months

The system adds the number of NFF from the shop work orders as well as repair orders for a part to ascertain the total number of NFF.

The actual MTBUR for a component is calculated in the following way,

Total FH of the part during the month / Total Number of unscheduled removals of the component during the month

The actual MTBUR for a non-component part is calculated in the following way,

Total FH of the part during the month * Quantity of parts per aircraft / Total Number of unscheduled removals of the component during the month

Retrieval of FH

The month-wise sum of the FH for every component with at least one unscheduled removal in the month is retrieved from the PV Update. Likewise for the non-components, the FH will be,

Total FH of the reliability fleet/ Number of aircrafts in the reliability fleet during the month

Engine shop visits computation

The basis of shop work order for shop visit calculation, which is defined in the "Set Options" activity.

If the basis of shop visits is "Main Core Issue", this attribute of the shop work order must be set to "Required". The status of shop work orders must be "Preclosed" or "Closed". However, if the Inspection Findings of the engine component is "BER", the work order is not counted as a shop visit.

If the basis of shop visits is "CoM", the basis of the shop work order must also be "CoM" and the status of the COM must be "Authorized". Additionally, the status of shop work orders must be "Preclosed" or "Closed".

The "Actual Start Date" of the component order must occur in the reporting month.

The status of the repair order must be "Acknowledge", "Amended", "Authorized", "BER closed", "Quoted", "Released" or "Shipped". However, if the Record Quotation of the engine component is "BER Closed", the repair order is not counted as a shop visit.

The "Release Date" of the repair order must occur in the reporting month.

✍ *Note: A repair order may pertain to multiple components.*

However, for each component, the repair order is counted as a shop visit.

To arrive at the monthly number of engine shop visits, the system sums up the number of shop work orders and repair orders for engine components of every active aircraft in the fleet, which satisfy the above-mentioned conditions. This count includes planned as well as unplanned shop visits.

Computation of Unscheduled removals

The unscheduled removals that satisfy the below-explained conditions only are considered for the report.

For components of every aircraft comprising the reliability fleet, the totaling of the unscheduled removals happens as follows,

Components retrieved from Aircraft Configuration.

Sum of Unscheduled and Basic removals for each component from the Component Replacement with the Reason # that is marked for Reliability Analysis in the "Create Reasons for Removals" activity of the Common Masters component. For non-components of each aircraft in the reliability fleet, the system arrives at the sum of unscheduled removals in the following way,

For non-components of aircraft,

The Removal Basis parameter in the Set Options activity forms the basis for the inclusion of unscheduled removals in the report. If this parameter is set to "Component Replacements", the system counts the unscheduled removals from shop work orders and Aircraft Maintenance Execution packages that satisfy the following conditions,

Sum of Unscheduled removals for each part from the Component Replacement with the Reason # identified for Reliability Analysis in the "Create Reasons for Removals" activity in the Common Masters.

The status must be Pre-closed / Closed for shop work orders, Closed / Completed for Aircraft Maintenance Execution packages.

If the Removal Basis parameter is set to "Maintenance Issue", the number of unscheduled removals will be the sum of the following, from Aircraft Maintenance Execution packages and shop work orders, the (Issue- Return) quantity of each part for a task or work order with the Planning Type attribute set to "Unplanned".

From Aircraft Maintenance Execution packages, the (Issue- Return) quantity of each part for a material request with the Planning Type attribute set to "Unplanned".

Computation of MTBUR

The NFF information pertaining to all components and non-components of each aircraft in the reliability fleet is retrieved from shop work orders and Repair orders, for the report. From Shop work orders, the NFF for a part is counted for the report, if The "Component Condition Changed to" in the "Record Inspection Findings" is "Serviceable".

The status of the shop work order is "Pre-closed" or "Closed". From repair orders, the NFF for a part is counted for the report, if

The "'Confirm Discrepancies Reported" is "No Fault Found".

The status of the repair order must be "Acknowledge", "Amended", "Authorized", "BER

The NFF must occur in the reported month/months

The system adds the number of NFF from the shop work orders as well as repair orders for a part to ascertain the total number of NFF.

The actual MTBUR for a component is calculated in the following way,

Total FH of the part during the month / Total Number of unscheduled removals of the component during the month

The actual MTBUR for a non-component part is calculated in the following way,

Total FH of the part during the month * Quantity of parts per aircraft / Total Number of unscheduled removals of the component during the month.

AIRCRAFT MONTHLY UTILIZATION REPORT

This report displays information on the monthly utilization of aircraft associated with a reliability fleet. The report put forth these information using graphs.

Total Flight Hours and Cycles since New:

‣ The cumulative value of FH for aircraft since induction into service till the month of the report

‣ The cumulative value of FC for aircraft since induction into service till the month of the report

Average Daily Aircraft Utilization – Flight Hours: computation formula

‣ Average Daily Aircraft Utilization (FH) = Total Number of FH for the month/ Number of In-Service Aircraft Days in the month

Average Daily Aircraft Utilization – Flight Cycles

‣ Average Daily Aircraft Utilization (FC) = Number of Departures for the month/ Number of In-Service Aircraft Days in a month

‣ Average Daily Aircraft Utilization – Flight Hours per Flight Cycles

‣ Average Daily Aircraft Utilization (FH per FC) = Total Number of FH for the month/ Number of Departures in a month

8.1.1 DATA COLUMNS (INDICATIVE OPERATIONAL PARAMETERS UNDER SUMMARY SHEET)

Monthly Number of Aircraft in the Fleet at end of	The number of aircraft associated in "Active" status with a reliability fleet, at the end of the month.
No. of Calendar Days this Month	The number of days in the month.
Average monthly Number of Aircraft in Service *	Number of In-Service Aircraft Days in a fleet / Number of calendar days in the month
Total monthly Flight	Aircraft-wise Total FH recorded in the month for the reliability fleet.
Total monthly Flight	Aircraft-wise Total FC recorded in the month for the reliability fleet.
Average daily Aircraft Utilization (Flight Hours)	Total FH of aircraft attached to the reliability fleet / Number of In-Service Aircraft Days of the reliability fleet.
Average daily Aircraft Utilization (Flight Cycles)	Total Number of FC of aircraft attached to the reliability fleet / Number of In-Service Aircraft Days for the fleet
Average monthly Flight Hours per Flight Cycle	Average Monthly FH for the reliability fleet/ Aircraft-wise Average Monthly FC for the reliability fleet.
Total monthly Revenue	Number of journey logs generated with the Flight Ops. Type as "Regular" for the reliability fleet.
12 months Aircraft Utilization	Running average of aircraft utilization for 12 months

8.1.2   DATA COLUMNS (INDIVIDUAL AIRCRAFT OPERATIONAL PARAMETERS)

Aircraft #	The registration # of the aircraft.
Model #	The model # of the aircraft.
MSN #	The manufacturer serial # of the aircraft.
Aircraft Group	The aircraft group to which the aircraft is mapped.
Configuration Class	The configuration class defined for the aircraft.
Engine Part #	The part # of the engine attached to the aircraft. If multiple parts are available, then all the part #s will be displayed separated by a semi-colon.
APU Part #	The part # of the APU attached to the aircraft. If multiple parts are available, then all the part #s will be displayed separated by a semi-colon.
Aircraft Induction Date	The date of induction of the aircraft into service.
ETOPS Capability	The ETOPS capacity defined for the configuration class of the aircraft: Yes or No.
Flight Hours	The cumulative FH recorded for the aircraft end of the month.
Flight Cycles	The cumulative FC recorded for the aircraft end of the month.
Landing Cycles	The cumulative landing cycles recorded for the aircraft end of the month. Note: The Landing Cycles column is shown or hidden depending on the value of the parameter "Display Landing Cycles?" in the Set Options activity of Reliability Analysis. See Set Options activity Help for more details.
Flight Hours for Month	The total FH recorded for the aircraft in the month.
Flight Cycles for Month	The total FC recorded for the aircraft in the month.
Landing Cycles for Month	The total landing cycles recorded for the aircraft in the month.
Service Days	The total number of service days for the aircraft in the month.

8.1.3   INDIVIDUAL AIRCRAFT DETAILED DATA

▸   Aircraft-wise Monthly Flight Hours and Flight

▸   Aircraft-wise Total Monthly Non–Revenue Departures (Note: **Fight Ops. Type** other than 'Regular' are deemed as Non-Revenue)

▸   Aircraft-wise Total Since New

ENGINE IN FLIGHT SHUT DOWNS REPORT

This report displays information on "Engine In-Flight Shut Downs" for aircraft in the reliability fleet.

8.1.4   DATA COLUMNS

Date	The date of occurrence of engine in flight shut down.
Aircraft Reg. #	The aircraft against which engine in flight shut down is reported.
Journey Log #	The journey log in which engine in flight shut down is recorded.
Station of departure	The station code from where the station aircraft has departed for the flight.
Remarks	Any comments/additional information on engine in flight shut down. This will be the remarks recorded in the "Report Flight Shut Down Hours" page of the Create Journey Log activity.

ENGINE MONTHLY RELIABILITY REPORT

This report displays information on reliability of engines of aircraft in the reliability fleet.

8.1.5   DATA COLUMNS

Total Monthly Engine Hours	The sum total of engine hours recorded against aircraft in the reliability fleet for the month

Note: If Engine Hours base parameter definition is not available in the Set Base Parameters activity of Aircraft, Engine Hours will be calculated for the number of engines defined for Model Configuration Class (formula: FH * # of Engines). Alternately, if the system is not able to compute Engine Hours as per the formula, this will be displayed in terms of FH. |
| 12 Months Average Monthly Engine Hours | The 12-month running average of engine hours for aircraft in the reliability fleet for the month.

For example, the 12 month running average for February 2016 will include the engine hours recorded for the months starting March 2015 to February 2016.

Note: If Engine Hours base parameter definition is not available in the Set Base Parameters activity of Aircraft, Engine Hours will be calculated for the number of engines defined for Model Configuration Class (formula: FH * # of Engines). Alternately, if the system is not able to compute Engine Hours as per the formula, this will be displayed in terms of FH. |
| Total Monthly Engine Cycles | The sum total of engine cycles recorded against aircraft in the reliability fleet for the month.

Note: The Total Monthly Engine Cycles column is shown or hidden depending on the value of the parameter "Display Engine Cycles?" in the Set Options activity of Reliability Analysis. See Set Options activity Help for more details. |
| 12 Months Average Monthly Engine Cycles | The 12-month running average of engine cycles for aircraft in the reliability fleet.

For example, the 12 month running average for February 2016 will include the engine cycles recorded for the months starting March 2015 to February 2016.

Note: The 12 Months Average Monthly Engine Cycles column is shown or hidden depending on the value of the parameter "Display Engine Cycles?" in the Set Options activity of Reliability Analysis. See Set Options activity Help for more details. |
| Monthly Number of Engine In Flight Shut Downs | The count of engine in flight shut downs of aircraft in the reliability fleet. |
| Monthly Engine In Flight Shut Downs | Monthly Engine In Flight Shut down rate= [(Monthly number of In Flight Shut downs/Total |
| 12 Months Average Monthly Engine In Flight Shut Downs Rate | The 12-month running average of Engine In Flight Shut Downs for aircraft in the reliability fleet.

For example, the 12 month running average for February 2016 will include the Engine In Flight Shut Downs reported for the months starting March 2015 to February 2016. |

8.1.6   GRAPHIC DATA

The graph for IFSD rate for the reliability fleet displays the following data:

▸ Month-wise rate of IFSD

▸ 12 months running average of IFSD

▸ Alert levels for the set for the fleet.

ENGINE REMOVALS AND SHOP VISITS REPORT

This report displays information on removals and shop visits of engines pertaining to aircraft in the reliability fleet.

8.1.7   DATA COLUMNS

Monthly Number of Engine Removals (Scheduled and Unscheduled)	The sum total of engine removals both scheduled and unscheduled from aircraft in the reliability fleet for the month.
Monthly Number of Un- scheduled	The sum total of unscheduled engine removals from aircraft in the reliability fleet for the month
Monthly Engine Removal Rate	(Monthly Number of Engine Removals (Scheduled and Unscheduled) / Total Engine Hours of the fleet)* FH /FC Rate
Monthly Unscheduled Engine Removal	Number of Unscheduled Removals of the fleet for the month/ Total Engine Hours of the fleet for the month) * FH / FC Rate.
12 Months Running Engine Removal Rate	The monthly running average of the engine removal rate of the past 12 months. For example, the 12 month running average for February 2016 will include the engine removal rates (both scheduled and unscheduled) recorded for the months starting March 2015 to February 2016.
12 Months Running Unscheduled Engine Removal Rate	The monthly running average of the monthly unscheduled engine removal rate of the previous12 months. For example, the 12 month running average for February 2016 will include the unscheduled engine removal rates recorded for the months starting March 2015 to February 2016.
Monthly Number of Engine Shop Visits (Planned and	The total count of shop visits of engines pertaining to all aircraft in the fleet for the month.
Monthly Engine Shop	Number of Engine Shop Visits for the month / Total Engine Hours of the fleet)* FH or FC Rate for the
12 Months Running Engine Shop Visit Rate	The running average of the monthly engine shop visit rates of the previous12 months. For example, the 12 month running average for February 2016 will include the shop visits recorded for the months starting March 2015 to February 2016.

8.1.8   GRAPHIC DATA

Engine removal rate graph

▸   The running average of scheduled and unscheduled engine removal rates reported per Rate Calculation Factor engine hours, for the previous 12 months.

▸   The running average of unscheduled engine removal rates reported per Rate Calculation Factor engine hours, for the previous 12 months.

▸   The running average of scheduled and unscheduled engine removal rates reported per Rate Calculation Factor engine hours, for the previous 3 months.

▸   The running average of unscheduled engine removal rates reported per Rate Calculation Factor engine hours, for the previous 3 months.

Unscheduled engine removal rate graph

The running average of unscheduled engine removal rates reported per <1000/100> Engine hours, for the previous 3 months.

Engine shop visits rate graph

▸ The running average of planned and unplanned engine shop visit rates reported per Rate Calculation Factor

▸ Engine hours, for the previous 12 months.

▸ The running average of unplanned engine visit rates reported per Rate Calculation Factor Engine hours, for the previous 12 months.

Engine shop visits computation

The basis of shop work order for shop visit calculation, which is defined in the "Set Options" activity.

If the basis of shop visits is "Main Core Issue", this attribute of the shop work order must be set to "Required". The status of shop work orders must be "Preclosed" or "Closed". However, if the Inspection Findings of the engine component is "BER", the work order is not counted as a shop visit.

If the basis of shop visits is "CoM", the basis of the shop work order must also be "CoM" and the status of the COM must be "Authorized". Additionally, the status of shop work orders must be "Preclosed" or "Closed".

The "Actual Start Date" of the component order must occur in the reporting month.

The status of the repair order must be "Acknowledge", "Amended", "Authorized", "BER closed", "Quoted", "Released" or "Shipped". However, if the Record Quotation of the engine component is "BER Closed", the repair order is not counted as a shop visit.

The "Release Date" of the repair order must occur in the reporting month.

> ✍ *Note:: A repair order may pertain to multiple components. However, for each component, the repair order is counted as a shop visit. To arrive at the monthly number of engine shop visits, the system sums up the number of shop work orders and repair orders for engine components of every active aircraft in the fleet, which satisfy the above-mentioned conditions.*

FLEET OPERATIONAL STATISTICS REPORT

This report helps to analyze the operational statistics of a selected Reliability Report Group as well as individual aircraft. It displays details of FH, FC, In service days and other details of fleets mapped to the Reliability Report group as well as for every individual aircraft attached to the fleets in the fleet group.

The report would be for the month for which the report is generated. This report does not consider the period set in the Set Options activity. This report puts two summaries:

▸ Fleet Operations Statistics Summary

▸ Aircraft Operations Statistics Summary

8.1.9   DATA COLUMNS

Fleet Operations Statistics table

Reliability Fleet #	The identification number of the reliability fleet mapped to the reliability report group.
Number of Aircraft sin the Fleet for the Month	The count of Active aircraft mapped to the reliability fleet in the month.
Flight Hours for the Month	The sum total of flight hours reported against the Active aircraft in the reliability fleet.
Flight Cycles for the Month	The sum total of flight cycles reported against the Active aircraft in the reliability fleet.
Average Flight Dura-	Total Flight Hours / Total Flight Cycles
In Service Days	The sum of In Service days of the Active aircraft in the reliability fleet. Note: The In service Days of an aircraft would be the number of Flight dates in the month from Approved journey logs with FH > 0.
Daily Utilization	Total Flight Hours / Total In Service Days
Monthly	The number of departures reported against the Active aircraft in the reliability fleet.
Monthly PIREPS	The number of PIREP discrepancies reported against the Active aircraft in the fleet.
Monthly PIREP Rate	PIREPS of the fleet/ Flight Hours * Rate Calculation Factor

Aircraft Operations Statistics table

Reliability Fleet #	The identification number of the reliability fleet.
Aircraft Reg #	The identification number of the aircraft mapped to the fleet in the month.
Model #	The model of the aircraft.
Flight Hours for the Month	The number of flight hours reported against the aircraft.
Flight Cycles for the Month	The number of flight cycles reported against the aircraft.
FH/FC	Total Flight Hours / Flight Cycles
Total FH	The cumulative flight hours recorded against the aircraft since inception.
Total FC	The cumulative flight cycles recorded against the aircraft since inception.

In Service Days	The sum of In Service days of the aircraft in the month. Note: The In service Days of an aircraft would be the number of Flight dates in the month from Approved journey logs with FH > 0.
Daily Utilization	Total Flight Hours for the fleet/ Total In Service Days
Monthly Departures	The number of departures reported against the aircraft.
Monthly PIREPS	The number of PIREP discrepancies reported against the aircraft.
Monthly PIREP Rate	PIREPS of the fleet/ Flight Hours * Rate Calculation Factor

Discrepancy computation

The PIREP type of discrepancies that satisfy the following conditions are considered for reporting,

▸ The Status must not be Fresh, No Fault Found and Cancelled.

▸ The ATA of the discrepancy must be flagged for reliability reporting in the Set ATA Reporting Levels page of the

▸ Setup Reliability Fleet activity.

▸ The Reliability Analysis attribute of the discrepancy must be set to "Include" in the Analyze Discrepancy Details activity.

▸ The discrepancy must occur during the reported month.

Departures computation

The system checks the journey logs created for all aircraft in the fleet to arrive at the number of departures. The journey logs that satisfy the following conditions are considered for the report,

▸ Flight Status must "Approved"

▸ Flight Date must occur in the reporting month.

FLEET RELIABILITY REPORT

The Fleet Reliability Report displays the following critical information on a specific reliability fleet for a pre-defined period ending with the user-specified month in the Generate Reliability Report activity.

8.1.10   DATA COLUMNS IN THE REPORT

Report Columns	Displayed Data
Total Fleet Size	The total number of aircraft mapped to the reliability fleet.
Operating Fleet Size	The number of aircraft mapped to the reliability fleet with reported flight hours more than Zero hours.
Total Flight Hours	The sum of flight hours of aircraft of the reliability fleet.
Total Flight Cycles	The sum of flight cycles of aircraft of the reliability fleet.
Total Flight Cycles / Day	Total Flight Cycles / Total calendar days in the month.
Total Fleet Flight Hours/Day/Aircraft	Total Flight Hours / (Number of calendar days in the month * Total Fleet Size)
Operating Fleet Flight Hours/Day/Aircraft	Total Flight Hours / (Number of calendar days in the month * Operating Fleet Size)
Total Fleet Flight Cycles/Day/Aircraft	Total Flight Cycles / (Number of calendar days in the month * Total Fleet Size)
Operating Fleet Flight Cycles/Day/Aircraft	Total Flight Cycles / (Number of calendar days in the month * Operating Fleet Size)
Cycle Time (Flight Hours)	Total Flight Hours / Total Flight Cycles of aircraft of the reliability fleet.
Total Revenue Flight Hours	The sum of flight hours of aircraft mapped to the reliability fleet with Fight Ops Type as "Regular".
Total Revenue Departures	The sum of departures of aircraft mapped to the reliability fleet with Fight Ops Type as "Regular".
Aircraft Daily Utilization (Hours)	Total Flight Hours of the reliability fleet / Total In Service days of the reliability fleet
Aircraft Daily Utilization (Cycles)	Total Flight Cycles of the reliability fleet / Total In Service days of the reliability fleet
Flight Cancellations for Technical Reasons	Total Flight Cancellations of aircraft attached to the fleet due to technical reasons
Technical Cancellation Rate	(Flight Cancellations for Technical Reasons / Total Revenue Departures) * 100
Total Delays > Reportable Delay for Technical Reasons	Total Delays caused by technical reasons / Total number of aircraft of the reliability fleet.
Technical Delay Rate	(Total Delays > Reportable Delay for Technical Reasons / Total Revenue
In Flight Shut Downs	Total In Flight Shut Downs reported against aircraft attached to the fleet.

Air Turn Backs / Flight Diversions	Total Air Turn Backs and Diversions reported against aircraft attached to the fleet.
Ground Turn Backs	Total Ground Turn Backs reported against aircraft attached to the fleet.
Technical Dispatch Reliability	Total Flight Interruptions / Total Revenue Departures of aircraft attached to the fleet. Note: The flight interruption types are: • Delays • Cancellations • Substitutions • Air turn backs • Ground Turn backs • Diversions

MIREP MONTHLY RATE REPORT BY MAJOR SYSTEM ATA

This report displays information on the discrepancies of type 'MIREP' with reference to Major System ATAs in a reliability fleet.

8.1.11   GRAPHIC DATA

Monthly Discrepancy Rate graph

The MIREP discrepancy rate of the reliability fleet for the month

(Number of discrepancies in a month /Total number of Flight Hours for the month) * Preset Analysis Factor. The value of Preset Analysis Factor may be 100 or 1000

Major System ATA Discrepancy Rate graph

The Major System ATA-wise MIREP discrepancy rate for the reliability fleet for the month

▸ Number of discrepancies in a month for the Major System ATA / Total number of Flight Hours for the month for the MajorSystem ATA) * Preset Analysis facator

The value of Preset Analysis Factor may be 100 or 1000.

> ✎ *Note: This report does not display graph for a Major System ATA, if no discrepancy is associated with any of the System ATAs mapped to the Major System ATA.*

8.1.12   DATA COLUMNS

ATA System	The names of the System ATAs mapped to the Major System ATA in the reliability fleet.
Alert Level	The predefined Alert levels for System ATA of the reliability fleet.
Months	The discrepancy rate for the System ATAs for months under the System ATA heads.

Discrepancy Rate Computation

The MIREP Report – Major System ATA shows the rate of discrepancies per 100/1000 FH on a month-wise basis at two levels,

▸ System ATA

▸ Major System ATA

For generating the above information, the system retrieves discrepancies solely of type "MIREP" reported against the System ATAs, from Discrepancy Processing component pertaining to all the aircraft in the fleet. Additionally, the MIREP discrepancies must also satisfy the following conditions for inclusion in the report,

▸ The record status must not be "Fresh, "No Fault Found" or "Cancelled".

▸ The discrepancy applicability must be "Aircraft".

▸ The System ATA must be set to "Yes" for analysis in the Set ATA Reporting Levels page of the Setup Reliability Fleet activity

▸ The Reliability Analysis attribute must be set to "Include", in the Analyze Discrepancy/MR Details activity.

> ✎ *Note: A discrepancy is not considered for reporting, if it does not possess ATA #.*

Monthly Discrepancy Rate for System ATA

▸ (Total number of MIREP discrepancies recorded against the System ATA for all the aircraft in the fleet / Total number of FH for all the aircraft in the fleet)* Rate Calculation Factor

Monthly Discrepancy Rate for Major System ATA

▸ (Total number of MIREP discrepancies recorded against the Major System ATA for all the aircraft in the fleet / Total number of FH for all the aircraft in the fleet)* Rate Calculation Factor

MIREP MONTHLY RATE REPORT BY SYSTEM ATA

This report displays information on discrepancies of type "MIREP" with reference to System ATAs in a reliability fleet. This includes MIREP type discrepancies reported by all aircraft in the fleet.

8.1.13   GRAPHIC DATA

▸   The month-wise MIREP discrepancy rate

▸   The three-month rolling MIREP discrepancy rate: calculation formula

(Sum of discrepancies for System ATA for the month / Total FH of the fleet for the month in the month) * Preset Analysis

    Factor

The value of Preset Analysis Factor may be 100 or 1000

8.1.14   DATA COLUMNS

System	The System ATA number of the MIREP discrepancy.
System Description	The name of the System ATA.
Major System	The major system to which the System ATA is mapped.
Major System Description	The name of the major system.
Alert Level	The Alert values defined for the System ATA in FH.
Months	The months as defined in the Set Options activity.
No	The total number of discrepancies reported in the month.
Rate per <1000> or	The rate of MIREP discrepancies per 1000 FH.
3 Month	The three-month rolling rate of MIREP discrepancies.
6 Month	The six-month rolling rate of MIREP discrepancies.
12 Month	The twelve-month rolling rate of MIREP discrepancies.

The user can record the following information.

Remarks	Any comments or supplementary information pertaining to the discrepancy/System ATA

MIREP REPORT – ATA

This report displays information on discrepancies of the type 'MIREP' for a reliability fleet pertaining to the month of the report.

8.1.15   DATA COLUMNS IN THE REPORT

Discrepancy #	The identification number of the discrepancy.
Discrepancy Description	The short name/description of the discrepancy.
Status	The status of the Occurrence report of the discrepancy.
ATA #	The ATA against which the discrepancy is reported.
Recurring	Indicates whether the discrepancy is recurring in nature.
System ATA #	The System ATA to which the ATA is mapped.
System Description	The short name/description of the System ATA.
Major System ATA	The Major System ATA to which the System ATA is mapped.
Major System Description	The short name/description of the major System ATA.
Aircraft #	The aircraft registration number.
Part #	The part associated with the discrepancy.
Serial #	The serial number of the part.
Reported By	The employee code of the person who reported the discrepancy.
Remedial Action	The action undertaken to resolve the discrepancy or mitigate the situation arising out of the discrepancy.
Remarks	Any comments /additional information on the discrepancy.
Resolved Date	The date on which the discrepancy is solved.
Source Discrepancy	The reference document for the discrepancy.

MONTHLY AIRCRAFT TECHNICAL DISPATCH RELIABILITY   REPORT

This report provides information on the technical dispatch reliability of a reliability fleet.

This report considers operational interruptions including Delays, Cancellations, Substitutions, Air Turn Backs, Ground Turn Backs, and Diversions for computing the month-wise rate of technical dispatch reliability of aircraft associated with the reliability fleet. Graphical representation of information is also available in the report.

8.1.16   D A T A COLUMNS

Departures	The total number of revenue departures made by all aircraft associated with the selected reliability fleet.
Delays–Non Technical	The count of Non – Technical Delays recorded against aircraft associated to the selected reliability fleet. Any delays with 'Delay Category' other than 'Technical & A/c Equipment' are considered for 'Delay – Non Technical'.
Delays-Technical	The count of Technical Delays recorded against aircraft associated to the selected reliability fleet for which the report is being generated. Any delays with 'Delay Category' as 'Technical & A/c Equipment' alone are considered for 'Delay – Technical'.
Cancellations	The sum total of journey log legs with 'Flight Status' as 'Cancelled' and journey log legs with Flight Status as "Delayed", with delay duration over the 'Delay Limit' specified in the 'Setup Reliability Fleet' activity.
Substitutions	The total number of journey log legs with 'Flight Status' as 'Substituted'.
Air Turn Backs	The total number of journey log legs with 'Flight Status' as 'Air Turned back'.
Ground Turn	The total number of journey log legs with 'Flight Status' as 'Ground Turned back'.
Diversions	The total number of journey log legs with 'Flight Status' as 'Diverted'.
Total Count	The sum of 'Delays–Technical', 'Cancellations', 'Substitutions', 'Air Turn Backs', 'Ground Turn Backs' and 'Diversions'.
Dispatch Reliability	The rate of technical dispatch reliability of the reliability fleet for the reported month. 100 - (Total Operational Interruptions * 100) / Number of Departures The following operational interruptions will be considered for computation of dispatch reliability: Delays, Cancellations, Substitutions, Air Turn Backs, Ground Turn Backs and Diversions with delay code category "'Technical & A/c Equipment'".
Target Dispatch	The target dispatch reliability for the reliability fleet, as defined in the 'Setup Reliability Fleet' activity

8.1.17   GRAPHIC DATA

Month-wise Technical Dispatch Reliability graph

Rate of technical dispatch reliability for the reliability fleet for the month derived as follows

▸ 100 - (Total Operational Interruptions * 100) / Number of Departures

Number of Technical Delays–System ATA-wise

The count of technical delays for the System ATAs with 'Flight Status' as 'Delayed'

Percentage of Technical Delays-System ATA-wise

The percentage of technical delays reported against System ATAs in the reported month computed. using the formula

▸ Count of Technical Delays per System ATA for the month for the Fleet / Count of Technical Delays for the month for the Fleet

Month-wise Rate of Technical Delays per <100> Departures

The rate of technical delays reported for the fleet for the month

▶ (Sum of count of delay for a fleet in the month / Count of revenue departures for a fleet in the month) * RateCalculation Factor for FH/FC

The six-month running rate of technical delays for the fleet

▶ (Sum of count of delay for a fleet for six months / Count of revenue departures for six months) * Rate Calculation

Factor for FH/FC

Month-wise Technical Delay Time

The total delay duration recorded against the fleet for the month.

▶ Count of technical delays for the fleet in a month / Count of Revenue FC recorded for the fleet for the month

PART MTBUR ANALYSIS REPORT

This report facilitates the MTBUR analysis of parts both components and non-components associated to aircraft of a reliability fleet.

Information in this report is segregated into these groups:

▸ Support agreement type
▸ Alert
▸ User defined parts

8.1.18   DATA COLUMNS

Support agreement type

Includes MTBUR details of parts with actual MTBUR less than the MTBUR specified by support agreement in the month of the report

ATA #	The ATA of the part.
Part #	The identification number of the part.
Description	The short name/ description of the part.
Manufacturer	The name of the manufacturer of the part.
Qty/Aircraft	Quantity of the part attached in aircraft in a fleet.
Past 1 Month	
Total Removals	The total number of removals of the part for the month of the report.
Unscheduled	The total number of unscheduled removals of the part for the month of the report
MTBUR [FH]	The actual MTBUR for the part for the month of the report
NFF Rate %	The number of NFF recorded for the parts for the month of the report
Past 3 Months	
Total Removals	The total number of removals of the part for 3 months preceding and including the month of the report.
Unscheduled Removals	The total number of unscheduled removals of the part for 3 months preceding and including the month of the report.
MTBUR [FH]	The actual MTBUR for the part for 3 months preceding and including the month of the report.
NFF Rate %	The number of NFF recorded for the part during 3 months preceding and including the month of the report.
Past 6 Months	
Total Removals	The total number of removals of the part for 6 months preceding and including the month of the report.
Unscheduled Removals	The total number of unscheduled removals of the part for 6 months preceding and including the month of the report.
MTBUR [FH]	The actual MTBUR of the part for 6 months preceding and including the month of the
NFF Rate %	The number of NFF recorded for the part during 6 months preceding and including the month of the report.

Past 12 Months	
Total Removals	The total number of removals of the part for 12 months preceding and including the month of the report.

Unscheduled Removals	The total number of unscheduled removals of the parts for 12 months preceding and including the month of the report.
MTBUR [FH]	The actual MTBUR of the part for 12 months preceding and including the month of the report.
Completed Shop Visits	The total number of completed shop visits for the part during 12 months preceding and including the month of the report.
NFF Rate %	The number of NFF recorded for the part during 12 months preceding and including the month of the report.
Alert Value	The MTBUR (FH) specified for the Alert Value attribute in the 'Set Alert Levels' page.
Delta – Alert Value	The difference between the actual MTBUR for the past 12 months and the Alert value. For example if the MTBUR for the past 12 months is 10000 FH and Alert value is 12000 FH then the Delta Alert Value would be 10000-12000= 2000.
MTBUR since inception	The MTBUR of the part based on the data uploaded to the reliability analysis business component. Hence, the value displayed here may not necessarily indicate the MTBUR for the part since inception into service. For example, if data was uploaded for the period June 20015 to 30th June 2008, the MTBUR since inception for the part would pertain to this

Alert

Includes information on parts with actual MTBUR for the month of the report less than the MTBUR specified for Alert

ATA #	The ATA of the part.
Part #	The identification number of the part.
Description	The short name/ description of the part.
Manufacturer	The name of the manufacturer of the part.
Qty/Aircraft	Quantity of the part fixed to all the aircraft in a fleet.
Past 1 Month	
Total Removals	The total number of removals of the part for the month of the report.
Unscheduled	The total number of unscheduled removals of the part for the month of the report
MTBUR [FH]	The actual MTBUR for the part for the month of the report
NFF Rate %	The number of NFF recorded for the parts for the month of the report
Past 3 Months	
Total Removals	The total number of removals of the part for 3 months preceding and including the month of the report.
Unscheduled Removals	The total number of unscheduled removals of the part for 3 months preceding and including the month of the report.
MTBUR [FH]	The actual MTBUR for the part for 3 months preceding and including the month of the report.
NFF Rate %	The number of NFF recorded for the part during 3 months preceding and including the month of the report.
Past 6 Months	
Total Removals	The total number of removals of the part for 6 months preceding and including the month of the report.
Unscheduled Removals	The total number of unscheduled removals of the part for 6 months preceding and including the month of the report.
MTBUR [FH]	The actual MTBUR of the part for 6 months preceding and including the month of the

NFF Rate %	The number of NFF recorded for the part during 6 months preceding and including the month of the report.
Past 12 Months	
Total Removals	The total number of removals of the part for 12 months preceding and including the month of the report.
Unscheduled Removals	The total number of unscheduled removals of the parts for 12 months preceding and including the month of the report.
MTBUR [FH]	The actual MTBUR of the part for 12 months preceding and including the month of the report.
Completed Shop Visits	The total number of completed shop visits for the part during 12 months preceding and including the month of the report.
NFF Rate %	The number of NFF recorded for the part during 12 months preceding and including the month of the report.
Alert Value	The MTBUR (FH) specified for the Alert Value attribute in the 'Set Alert Levels' page.
Delta – Alert Value	The difference between the actual MTBUR for the past 12 months and the Alert value. For example if the MTBUR for the past 12 months is 10000 FH and Alert value is 12000 FH then the Delta Alert Value would be 10000-12000= 2000.
MTBUR since inception	The MTBUR of the part based on the data uploaded to the reliability analysis business component. Hence, the value displayed here may not necessarily indicate the MTBUR for the part since inception into service. For example, if data was uploaded for the period June 2007 to 30th June 2008, the MTBUR since inception for the part would pertain to this period even if the part was initialized into service in January 2007.

User Defined Parts

Includes total removals, unscheduled removals, MTBUR and NFF for parts in the Watch list

ATA #	The ATA of the part.
Part #	The identification number of the part.
Description	The short name/ description of the part.
Manufacturer	The name of the manufacturer of the part.
Qty/Aircraft	The quantity of the part fixed to all the aircraft in a fleet.
Past 1 Month	
Total Removals	The total number of removals of the part for the month of the report.
Unscheduled	The total number of unscheduled removals of the part for the month of the report.
MTBUR [FH]	The actual MTBUR of the part for the month of the report.
NFF Rate %	The number of NFF recorded of the part for the month of the report.
Past 3 Months	
Total Removals	The total number of removals of the part for 3 months preceding and including the month of the report.
Unscheduled Removals	The total number of unscheduled removals of the part for 3 months preceding and including the month of the report.
MTBUR [FH]	The actual MTBUR for the part during 3 months preceding and including the month of the report.
NFF Rate %	The number of NFF recorded for the part during 3 months preceding and including the month of the report.
Past 6 Months	

Total Removals	The total number of removals of the part for 6 months preceding and including the month of the report.
Unscheduled Removals	The total number of unscheduled removals of the part for 6 months preceding and including the month of the report.
MTBUR [FH]	The actual MTBUR for the part during 6 months preceding and including the month of the report.
NFF Rate %	The number of NFF recorded for the part during 6 months preceding and including the month of the report.
Past 12 Months	
Total Removals	The total number of removals of the part for 12 months preceding and including the month of the report.
Unscheduled Removals	The total number of unscheduled removals of the part for 12 months preceding and including the month of the report.
MTBUR [FH]	The actual MTBUR for the part for 12 months preceding and including the month of the report.
Completed Shop Visits	The total number of completed shop visits for the part during 12 months preceding and including the month of the report.
NFF Rate %	The number of NFF recorded for the part during 12 months preceding and including the month of the report.
Support Agreement Type	The MTBUR value defined for the part, supplier and support agreement type combination in the 'Set MTBUR Limits for Parts' activity. Note: If multiple Support Agreement Types are available, then the MTBUR against all the Support Agreement Types would be displayed in this report.
Alert Value	The value defined for the part against the MTBUR (FH) attribute in the 'Set Alert Levels' page.
MTBUR since inception	The MTBUR of the part based on the data uploaded to the reliability analysis business component. Hence, the value displayed here may not necessarily indicate the MTBUR for the part since inception into service. For example, if data was uploaded for the period June 2007 to 30th June 2008, the MTBUR since inception for the part would pertain to this period even if the part was initialized into service in January 2007.

8.1.19   GRAPHIC DATA

‣   Actual MTBUR with MTBUR (FH) set for part

‣   Unscheduled removals to completed shop visits and NFF

Computation of Unscheduled removals

The unscheduled removals that satisfy the below-explained conditions only are considered for the report.

For components of every aircraft comprising the reliability fleet, the totaling of the unscheduled removals happens as follows,

‣   Components retrieved from Aircraft Configuration.

‣   Sum of Unscheduled and Basic removals for each component from the Component Replacement with the Reason # that is marked for Reliability Analysis in the "Create Reasons for Removals" activity of the Common Masters component. For non-components of each aircraft in the reliability fleet, the system arrives at the sum of unscheduled removals in the following way,

For non-components of aircraft,

The Removal Basis parameter in the Set Options activity forms the basis for the inclusion of unscheduled removals in the report. If this parameter is set to "Component Replacements", the system counts the unscheduled removals from Aircraft Maintenance Execution and shop work orders that satisfy the following conditions,

▸ Sum of Unscheduled removals for each part from the Component Replacement with the Reason # identified for Reliability Analysis in the "Create Reasons for Removals" activity in the Common Masters.

▸ The status must be Pre-closed / Closed for shop work orders, Closed / Completed for Aircraft Maintenance Execution packages.

If the Removal Basis parameter is set to "Maintenance Issue", the number of unscheduled removals will be the sum of the following, from Aircraft Maintenance Execution packages and shop work orders, the (Issue-Return) quantity of each part for a task or work order with the Planning Type attribute set to "Unplanned".

From Aircraft Maintenance Execution packages, the (Issue-Return) quantity of each part for a material request with the Planning Type attribute set to "Unplanned".

Computation of MTBUR

The NFF information pertaining to all components and non-components of each aircraft in the reliability fleet is retrieved from shop work orders and Repair orders, for the report.

From shop work orders, the NFF for a part is counted for the report, if

The "Component Condition Changed to" in the "Record Inspection Findings" is "Serviceable".

The status of the shop work order is "Pre-closed" or "Closed". From repair orders, the NFF for a part is counted for the report, if "Confirm Discrepancies Reported" is "No Fault Found".

The status of the repair order must be "Acknowledge", "Amended", "Authorized", "BER Closed", "Quoted", "Released" and "Shipped".

The NFF must occur in the reported month/months

The system adds the number of NFF from the shop work orders as well as repair orders for a part to ascertain the total number of NFF.

The actual MTBUR for a component is calculated in the following way,

Total FH of the part during the month / Total Number of unscheduled removals of the component during the month

The actual MTBUR for a non-component part is calculated in the following way,

Total FH of the part during the month * Quantity of parts per aircraft / Total Number of unscheduled removals of the component during the month

Retrieval of FH

The month-wise sum of the FH for every component with at least one unscheduled removal during the month is retrieved from the PV Update. Likewise for the non-components, the FH will be,

Total FH of the reliability fleet/ Number of aircrafts in the reliability fleet during the month.

PART NFF ANALYSIS REPORT

This report provides NFF information of parts for a reliability fleet. The unscheduled removals, FH and NFF for part #-serials # attached to aircraft in the fleet are available in the report. A breakup of information in the following categories is provided in the report.

▸ NFF Analysis

▸ System ATA

▸ Major System ATA

8.1.20   DATA COLUMNS

NFF Analysis

ATA #	The ATA of the part.
Part #	The identification number of the part.
Serial #	The serial number of the part.
Description	The short name/description of the part.
Past 1 Month	
Unscheduled	The number of unscheduled removals during the month of the report.
NFF	The number of NFF recorded for the part during the month of the report.
FH	The FH of the part during the month of the report.
Past 3 Months	
Unscheduled Removals	The number of unscheduled removals of the part during three months prior to the date of the report.
NFF	The number of NFF of the part in three months prior to the date of the report.
FH	The FH for the part in three months prior to the date of the report.
Past 6 Months	
Unscheduled Removals	The number of unscheduled removals of the part in six months prior to the date of the report.
NFF	The number of NFF of the part in six months prior to the date of the report.
FH	The FH for the part in six months prior to the date of the report.
Past 12 Months	
Unscheduled Removals	The number of unscheduled removals of the part in 12 months prior to the date of the report.
NFF	The number of NFF of the part in12 months prior to the date of the report.
FH	The FH for the part in 12 months prior to the date of the report.
Since New	
Unscheduled Removals	The number of unscheduled removals of the part since inception.
NFF	The number of NFF of the part since inception.
FH	The FH for the part since inception.

System ATA

System ATA #	The System ATA to which the ATA of the part is mapped.
System ATA	The short name/description identification number of the System ATA.
Past 1 Month	
Unscheduled Removals	The number of unscheduled removals for the System ATA during the month.
NFF	The number of NFF recorded for the System ATA during the month of the report.
NFF %	The ratio of NFF to the Unscheduled Removals during the month.
Past 3 Months	
Unscheduled Removals	The number of unscheduled removals for the System ATA during three months prior to the date of the report.
NFF	The number of NFF for the System ATA during three months prior to the date of the
NFF %	The ratio of NFF to the Unscheduled Removals during three months prior to the date of the report.
Past 6 Months	
Unscheduled Removals	The number of unscheduled removals for the System ATA during six months prior to the date of the report.
NFF	The number of NFF shop visits for the System ATA during six months prior to the date of the report.
NFF %	The ratio of NFF to the Unscheduled Removals during six months prior to the date of the report.
Past 12 Months	
Unscheduled Removals	The number of unscheduled removals for the System ATA during 12 months prior to the date of the report.
NFF	The number of NFF shop visits for the System ATA during 12 months prior to the date of the report.
NFF %	The ratio of NFF to the Unscheduled Removals during 12 months prior to the date of the report.
Since New	
Unscheduled Removals	The number of unscheduled removals for the System ATA since inception.
NFF	The number of NFF shop visits for the System ATA since inception.
NFF %	The ratio of NFF to the Unscheduled Removals since inception.

8.1.21   MAJOR SYSTEM ATA

Major System ATA	The Major System ATA to which the ATA of the part is mapped.
Major System ATA Description	The short name/description identification number of the Major System ATA to which the ATA of the part is mapped.
Past 1 Month	
Unscheduled	The number of unscheduled removals during the month of the report.
NFF	The number of NFF recorded for the Major System ATA during the month of the report.
NFF %	The ratio of NFF to the Unscheduled Removals during the month.
Past 3 Months	

Unscheduled Removals	The number of unscheduled removals for the Major System ATA during three months prior to the date of the report.
NFF	The number of NFF for the Major System ATA during three months prior to the date of the report.
FF %	The ratio of NFF to the Unscheduled Removals during three months prior to the date of the report.
Past 6 Months	
Unscheduled Removals	The number of unscheduled removals for the Major System ATA during six months prior to the date of the report.
NFF	The number of NFF for the Major System ATA during six months prior to the date of the report.
NFF %	The ratio of NFF to the Unscheduled Removals during six months prior to the date of the report.
Past 12 Months	
Unscheduled Removals	The number of unscheduled removals for the Major System ATA during 12 months prior to the date of the report.
NFF	The number of NFF for the Major System ATA during 12 months prior to the date of the report.
NFF %	The ratio of NFF to the Unscheduled Removals during 12 months prior to the date of the report.
Since New	
Unscheduled Removals	The number of unscheduled removals for the Major System ATA since inception.
NFF	The number of NFF shop visits for the Major System ATA since inception.
NFF %	The ratio of NFF to the Unscheduled Removals since inception.

PIREP MONTHLY RATE REPORT BY MAJOR SYSTEM ATA

This report displays information on discrepancies of type PIREP with reference to Major System ATAs in reliability fleet. This includes PIREP type discrepancies reported by all aircraft in the fleet.

8.1.22   GRAPHIC DATA

The PIREP discrepancy rate of the reliability fleet

The PIREP discrepancy rate for the Major System ATA of the reliability fleet

8.1.23   D AT A COLUMNS

ATA System	The names of System ATAs mapped to the Major System ATA for the reliability fleet.
Alert Level	The predefined Alert levels of each System ATA of the reliability fleet.
Months	The discrepancy rate of each System ATA is displayed against the months under the System

PIREP MONTHLY RATE REPORT BY SYSTEM ATA

This report displays information on discrepancies of type "PIREP" with reference to System ATAs in a reliability fleet. Comprehensive details as well as the month-wise rate of discrepancies for each System ATA are available in the report.

8.1.24   GRAPHIC DATA

- ▸ The month-wise PIREP discrepancy rate
- ▸ The three-month rolling PIREP discrepancy rate
- ▸ The pre-defined Alert value

8.1.25   DATA COLUMNS

System	The System ATA number of the PIREP discrepancy.
System Description	The name of the System ATA.
Major System	The major system ATA to which the System ATA is mapped.
Major System Description	The name of the major system.
Alert Level	The Alert values defined for the System ATA in FH.
Months	The months as defined in the Set Options activity.
No	The total number of discrepancies reported in the month.
Rate per <1000>	The rate of PIREP discrepancies per <1000> FH.
3 Month	The three-month rolling rate of PIREP discrepancies.
6 Month	The six-month rolling rate of PIREP discrepancies.
12 Month	The twelve-month rolling rate of PIREP discrepancies.

PIREP REPORT - ATA DETAILS

This report displays information on discrepancies of the type "PIREP" for a reliability fleet pertaining to the month of the report. This includes PIREP type discrepancies reported by all aircraft in the fleet.

8.1.26   DATA COLUMNS

Discrepancy #	The identification number of the discrepancy.
Discrepancy Description	The short name/description of the discrepancy.
Status	The record status of the of the discrepancy.
ATA #	The ATA against which the discrepancy is reported.
Recurring	Indicates whether the discrepancy is recurring in nature.
System ATA #	The System ATA to which the ATA is mapped.
System Description	The short name/description of the System ATA.
Major System ATA	The Major System ATA to which the System ATA is mapped.
Major System Description	The short name/description of the major System ATA.
Aircraft #	The aircraft registration number.
Part #	The part associated with the discrepancy.
Serial #	The serial number of the part.
Reported By	The employee code of the person who reported the discrepancy.
Remedial Action	The action undertaken to resolve the discrepancy or mitigate the situation arising out of the discrepancy.
Remarks	Any comments /additional information on the discrepancy.
Resolved Date	The date on which the discrepancy is solved.
Source Discrepancy	The reference document for the discrepancy.

PIREP-MIREP REPORT BY MAJOR SYSTEM ATA

This report displays information on discrepancies with reference to Major System ATAs in a reliability fleet. This includes both MIREP and PIREP discrepancies reported by all aircraft mapped to the reliability fleet.

8.1.27 GRAPHIC DATA

▶ Discrepancy Rate graph

▶ Major System ATA Discrepancy Rate graph

8.1.28 DATE COLUMNS

ATA System	The names of System ATAs mapped to particular Major System ATA in the reliability
Alert Level	The predefined Alert levels displayed under each System ATA of the reliability fleet.
Months	The discrepancy rate for the System ATAs under the System ATA heads.

PIREP-MIREP MONTHLY RATE REPORT BY SYSTEM ATA

This report displays information on discrepancies with reference to System ATAs in a reliability fleet. Comprehensive details as well as the month-wise rate of discrepancies (both PIREP and MIREP) for each System ATA are available in the report.

8.1.29   GRAPHIC DATA

Line graphs in the report represent the following information:

▶   The monthly discrepancy rate

▶   The three-month discrepancy rate

▶   The predefined Alert value

8.1.30   DATA COLUMNS

System	The System ATA number of the discrepancy.
System Description	The name of the System ATA.
Major System	The major system to which the System ATA is mapped.
Major System Description	The name of the major system.
Alert Level	The Alert values defined for the System ATA in FH.
Months	The months as defined in the Set Options activity.
No	The total number of discrepancies reported in the month.
Rate per <1000	The rate of discrepancies per 1000 FH.
3 Month	The three-month rolling rate of discrepancies.
6 Month	The six-month rolling rate of discrepancies.
12 Month	The twelve-month rolling rate of discrepancies.

PIREP-MIREP REPORT ATA DETAILS

This report displays information on discrepancies with reference to ATAs for a reliability fleet.

8.1.31   DATA COLUMNS

Discrepancy #	The identification number of the discrepancy.
Discrepancy Description	The short name/description of the discrepancy.
Status	The status of the Occurrence report of the discrepancy.
ATA #	The ATA against which the discrepancy is reported.
Recurring	Indicates whether the discrepancy is recurring in nature.
System ATA #	The System ATA to which the ATA is mapped.
System Description	The short name/description of the System ATA.
Major System ATA	The Major System ATA to which the System ATA is mapped.
Major System Description	The short name/description of the major System ATA.
Aircraft #	The aircraft registration number.
Part #	The part associated with the discrepancy.
Serial #	The serial number of the part.
Reported By	The employee code of the person who reported the discrepancy.
Remedial Action	The action undertaken to resolve the discrepancy or mitigate the situation arising out of the
Remarks	Any comments /additional information on the discrepancy.
Resolved Date	The date on which the discrepancy is solved.
Source Discrepancy	The reference document for the discrepancy.

AIRCRAFT INCIDENTS REPORT

This report displays information on the incidents reported at the reliability report group and reliability fleet levels.

8.1.32   GRAPHIC DATA

Rate of Incidents for aircraft in the reliability fleet

> ✍ *Note: The graph is not displayed for a fleet if no incidents are reported against any of its aircraft for the reporting period.*

The Monthly Rate of Incidents (FH) reported for Fleet Group

Formula = (Number of Incidents / Total number of Flight Hours for a month) * 1000

The Monthly Rate of Incidents (FH) reported against each Fleet

Formula = (Number of Incidents / Total number of Flight Hours for a month) * 1000

8.1.33   DATA COLUMNS IN THE REPORT

Report Columns	Displayed Data
Fleet	The fleets mapped to the reliability fleet group. Note: Only the fleets against which incidents are reported during the period of the report are displayed here. A fleet in the reliability fleet group is not listed, if no incidents are reported against any aircraft for the predefined period.
Date	The date of occurrence of the incident.
Aircraft Reg. #	The aircraft against which the occurrence was reported.
Reporting Station	The station at which the occurrence is reported.
Location	The physical location at which the incident occurred.
Phase of Operation	The phase of the operation during which the incident occurred.
ATA	The ATA chapter number related to the incident
ATA Description	The name or short description of the ATA chapter.
System	The system mapped to the ATA.
System Description	The description of the system.
Major System	The major system mapped to the ATA
Major System Description	The description of the major system
Incident Type	The category or type of the incident.
Incident	The identification number of the reported incident against the aircraft.
Incident	The description of the incident.
Occurrence Report #	The identification number of the occurrence report generated for the incident by the pilot
Occurrence Description	The description of the occurrence.
Remedial Action	A narrative on the corrective action undertaken to resolve or mitigate the incident.
Remarks	Any analysis or comments or description on the incident.

APU MONTHLY RELIABILITY REPORT

This report displays APU-related information for a reliability fleet.

8.1.34   DATA COLUMNS

Monthly Total Accumulated APU Hours of the Fleet	The sum total of APU hours of all aircraft in the reliability fleet.
12 Months Running Average of Monthly APU Hours	The running average of APU hours for 12 months of aircraft in the reliability fleet.
Monthly Number of	The sum total of scheduled removals of APU components from aircraft in the reliability fleet.
Monthly Scheduled APU Removal Rate	Monthly Number of Scheduled APU Removals for the reliability fleet / Total Accumulated Monthly APU Hours for the reliability fleet
12 Months Running Monthly Scheduled APU Removal Rate	The running average of the Monthly Scheduled APU Removal Rate for 12 months.
Monthly Number of Unscheduled APU Removals	The sum total of unscheduled removals of APU components from aircraft in the reliability fleet.
Monthly Unscheduled	The ratio of Monthly Number of Unscheduled APU Removals and Monthly Total Accumulated APU Hours of the fleet.
12 Months Running Monthly Unscheduled APU Removal Rate	The running average of the Monthly Unscheduled APU Removal Rate for 12 months.
Monthly Number of APU Removals (Scheduled and Unscheduled)	The sum of Monthly Number of Scheduled APU Removals and Monthly Number of Unscheduled APU Removals from aircraft in the reliability fleet.
Total Removals	The sum of removals of all types, namely Scheduled, Unscheduled and Others from aircraft in the reliability fleet.
Monthly Number of Shop Visits	The total count of shop visits of all APU components from aircraft of the reliability fleet

8.1.35   GRAPHIC DATA

APU removal rates both scheduled and unscheduled from aircraft in the reliability fleet

APU START DETAILS REPORT

This report provides information on APU starts for the aircraft in the reliability fleet.

8.1.36   DATA COLUMNS

Aircraft Reg. #	The aircraft against which APU starts are recorded in the journey log.
Date	The flight date of journey logs in which APU starts are recorded.
Journey Log #	The journey log in which APU starts recorded.
Component	The component # of the APU against which APU cycles were recorded in the journey log.
Part #	The part # of the component.
Serial #	The serial # of the component.
APU Starts	The APU cycles recorded against the component in the journey log.

DEFERRALS & OPERATIONAL INTERRUPTIONS ANALYSIS REPORT

This report displays information on discrepancy deferrals and operational interruptions due to technical reasons, reported against a reliability fleet. Information in this report is put forth in graphical and report format.

8.1.37 GRAPHIC DATA

Average number of daily open ADD

The month-wise count and the six months running average of daily open ADD for aircraft in the reliability fleet.

ADD:

(Count of ADD for aircrafts in the fleet) / ((Count of aircraft in the fleet) * (Count of Service days))

Six month running average of Open ADD for the month

(Count of ADD for aircrafts in the fleet) / ((Count of aircrafts in the fleet) * Count of Service days))

Count of aircraft in the fleet: Number of aircraft mapped to the reliability fleet at the end of the month.

> ✎ *Note: The status of the aircraft and the reliability fleet must be "Active".*

Average number of daily open MEL

This graph depicts the month-wise average number of daily open MEL's and the six months running average of MELs for all aircraft in the reliability fleet.

MEL:

(Count of MEL for aircrafts in the fleet) / ((Count of aircrafts in the fleet) * Count of Service days))

Six months running average of MEL:

Six month running average of MEL for the month

Monthly rate of cancellations and substitutions due to technical reasons – per FC

This graph depicts the month-wise rate of cancellations and substitutions of all aircrafts in the fleet, caused by technical snags per FC.

Monthly rate of Technical cancellations for the reliability fleet =

(Number of technical cancellations per month for the fleet / Total number of FH per month for the Fleet) * Rate Calculation

Factor FC

Monthly rate of Technical substitutions for the reliability fleet =

(Number of technical substitutions per month for the fleet / Total number of FH per month for the Fleet) * Rate Calculation

Factor FC

Technical cancellation count: This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following

▸ Journey log Status is "Approved"

▸ The Flight Date must occur in the reported month

▸ Flight Status as "Cancelled"

Flight Status as "Delayed' with delay duration over the Delay Limit specified in the Setup Reliability Fleet activity.

▸ ~~Reason # of the cancellation / delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in~~ the "Record Operational Interruption Details" or "Regularize Operational Interruption Details" activity in the 'Flight Log' business component)

> ✎ *Note: If the Delay Limit is not specified in the Setup Reliability Fleet activity, regardless of the delay duration it would be considered as 'Delayed'.*

Technical substitution count: This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following

▸ Journey log Status is "Approved"

▸ The Flight Date must occur in the reported month

▸ Flight Status is "Substituted"

▸ Reason # of the cancellation / delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in the "Record Operational Interruption Details" or "Regularize Operational Interruption Details" activity in the'Flight Log' business component).

Monthly rate of cancellations and substitutions due to technical reasons – per FH

This graph depicts the month-wise rate of cancellations and substitutions of all aircrafts in the fleet, caused by technical snags per FH.

Monthly rate of Technical Cancellations for the reliability fleet =

(Number of technical cancellations per month for the fleet / Total number of FH per month for the Fleet) * Rate Calculation Factor FH

Monthly rate of Technical Substitutions for the reliability fleet =

(Number of technical substitutions per month for the fleet / Total number of FH per month for the Fleet) * Rate Calculation Factor FH

> ✎ *Note: The rate calculation factor would depend on the value specified for the Rate Calculation Factor for "FH/ FC" attribute in the Set Options activity.*

Technical cancellation count: This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following

▸ Journey log Status is "Approved"

▸ The Flight Date must occur in the reported month

▸ Flight Status as "Cancelled"

▸ Flight Status as "Delayed', with delay duration over the Delay Limit specified in the Setup Reliability Fleet activity.

▸ Reason # of the cancellation / delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in the "Record Operational Interruption Details" or "Regularize Operational Interruption Details" activity in the 'Flight Log' business component).

> ✎ *Note: If the Delay Limit is not specified in the Setup Reliability Fleet activity, regardless of the delay duration it would be considered as 'Delayed'.*

Technical substitution count: This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following

▸ Journey log Status is "Approved"

▸ The Flight Date must occur in the reported month

▸ Flight Status is "Substituted"

▸ Reason # of the cancellation / delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in the "Record Operational Interruption Details" or "Regularize Operational Interruption Details" activity in the 'Flight Log' business component).

Monthly rate of delays due to technical reasons – per FC

This graph depicts the month-wise rate of delays of aircraft in the fleet, caused by technical snags per FC.

Monthly rate of Technical Delays for the reliability fleet per FC

(Number of technical delays per month for the fleet / Total number of FC per month for the fleet) * Rate Calculation Factor

FC

Technical delay count: This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following

▸ Journey log Status is "Approved"

▸ The Flight Date must occur in the reported month

▸ Flight Status as "Delayed", with delay duration between the 'Reportable Delay' and 'Delay Limit' specified in the Setup Reliability Fleet activity.

▸ Reason # of the cancellation / delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in the "Record Operational Interruption Details" or "Regularize Operational Interruption Details" activity in the 'Flight Log' business component)

> ✎ *Note: If the Delay Limit is not specified in the Setup Reliability Fleet activity, regardless of the delay duration it would be considered as 'Delayed'.*

Monthly rate of delays due to technical reasons – per FH

This graph depicts the month-wise rate of delays of all aircrafts in the fleet, caused by technical snags per FH.

Monthly rate of Technical Delays for the reliability fleet per FH

▸ (Number of technical delays per month for the fleet / Total number of FH per month for the fleet) * Rate Calculation Factor FH

Technical delay count: This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following

▸ Journey log Status is "Approved"

▸ The Flight Date must occur in the reported month

▸ Flight Status as "Delayed", with delay duration between the 'Reportable Delay' and 'Delay Limit' specified in the Setup Reliability Fleet activity

▸ Reason # of the cancellation / delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in the "Record Operational Interruption Details" or "Regularize Operational Interruption Details" activity in the

▸ 'Flight Log' business component)

> ✎ *Note: If the Delay Limit is not specified in the Setup Reliability Fleet activity, regardless of the delay duration it would be considered as 'Delayed'. Monthly rate of cancellations due to technical reasons – per FC*

This graph depicts the month-wise rate of cancellations of all aircrafts in the reliability fleet, caused by technical snags per FC (Number of technical cancellations per month for the fleet / Total number of FC per month for the Fleet) * Rate Calculation Factor FC

Technical cancellation count: This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following

- Journey log Status is "Approved"

- The Flight Date must occur in the reported month

- Flight Status as "Cancelled"

- Flight Status as "Delayed', with delay duration over the Delay Limit specified in the Setup Reliability Fleet activity

- Reason # of the cancellation / delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in the "Record Operational Interruption Details" or "Regularize Operational Interruption Details" activity in the 'Flight Log' business component)

> ✍ *Note: If the Delay Limit is not specified in the Setup Reliability Fleet activity, regardless of the delay duration it would be considered as 'Delayed*

Monthly rate of cancellations due to technical reasons – per FH

- This graph depicts the month-wise rate of cancellations of all aircrafts in the reliability fleet, caused by technical snags per FH.

Monthly rate of Technical Cancellations for the reliability fleet, per FH

(Number of technical cancellations per month for the fleet / Total number of FH per month for the Fleet) * Rate Calculation

- Factor FH

Technical cancellation count: This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following

- Journey log Status is "Approved"

- The Flight Date must occur in the reported month

- Flight Status as "Cancelled"

- Flight Status as "Delayed', with delay duration over the Delay Limit specified in the Setup Reliability Fleet activity.

- Reason # of the cancellation / delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in the "Record Operational Interruption Details" or "Regularize Operational Interruption Details" activity in the

- 'Flight Log' business component).

> ✍ *Note: If the Delay Limit is not specified in the Setup Reliability Fleet activity, regardless of the delay duration it would be considered as 'Delayed".*

Monthly rate of substitutions due to technical reasons – per FC

This graph depicts the month-wise rate of substitutions of all aircrafts in the reliability fleet, caused by technical snags per FC.

Monthly rate of Technical Substitutions for the reliability fleet, per FC

(Number of technical substitutions per month for the fleet / Total number of FC per month for the fleet) * Rate Calculation

Factor FH

Technical substitution count: This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following

- Journey log Status is "Approved"

- The Flight Date must occur in the reported month

- Flight Status is "Substituted"

- Reason # of the cancellation / delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in the "Record Operational Interruption Details" or "Regularize Operational Interruption Details" activity in the 'Flight Log' business component)

Monthly rate of substitutions due to technical reasons – per FH

This graph depicts the month-wise rate of substitutions of all aircrafts in the reliability fleet, caused by technical snags per FH.

Monthly rate of Technical Substitutions for the reliability fleet, per FC

(Number of technical substitutions per month for the fleet / Total number of FH per month for the fleet) * Rate Calculation Factor FH

Technical substitution count: This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following

▸ Journey log Status is "Approved"

▸ The Flight Date must occur in the reported month

▸ Flight Status is "Substituted"

▸ Reason # of the cancellation / delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in the "Record Operational Interruption Details" or "Regularize Operational Interruption Details" activity in the 'Flight Log' business component)

8.1.38   DATA COLUMNS IN THE REPORT

Monthly Average daily open Acceptable Deferred Defects	The average count of open Acceptable Deferred Defects pertinent to aircraft of the reliability fleet for the month.
MEL	The average count of open defects of Deferral Type "MEL" pertinent to aircraft of the reliability fleet, for the month.
Six months running Aver- age of daily open ADDs	The six months running average of open Acceptable Deferred Defects of Deferral Type "MEL" pertinent to aircraft of the reliability fleet, for the month.
Monthly Total Number of Cancellations for Technical Reasons	The count of cancellations of aircraft of the reliability fleet classified under the Delay Category "Technical & A/C Equipment", for the month.
Monthly Total Number of Aircraft Substitutions for Technical Reasons	The count of substitutions of aircraft in the reliability fleet classified under the Delay Category "Technical & A/C Equipment", for the month.
Monthly Total Number of Technical Delays	The count of cancellations of aircraft in the reliability fleet classified under the Delay Category "Technical & A/C Equipment" for the month.
Monthly Rate of Technical Delays	The rate of technical delays of aircraft in the reliability fleet for the month.
Six months Running Aver- age of the monthly Rate of Technical Delays	The six months running average of technical delays of aircraft in the reliability fleet for the month. Monthly Rate of Technical Delays = (No. of Technical Delays per month for the Fleet / Flight Hours per month for the Fleet) * <100/1000>

DISCREPANCY REPORT IN ETOP AIRCRAFT

This report displays discrepancy-related details pertaining to the ETOP certified aircraft in the reliability fleet.

8.1.39   DATA COLUMNS

Aircraft Reg. #	The identification number of the aircraft
Flight #	The identification number of the flight
Reported Date	The date on which the discrepancy was reported for the ETOP aircraft
ATA #	The ATA against which the discrepancy is recorded
System ATA #	The System ATA to which the ATA is mapped
Major System ATA #	The Major System ATA to which the System ATA is mapped
Discrepancy #	The identification number of the discrepancy
Discrepancy	The description of the discrepancy
Remedial Action	The action undertaken to resolve the discrepancy
Resolved Date	The date on which the discrepancy is resolved

✎   *Note: Those aircraft with the configuration class as 'ETOP' are considered for the report. Further, the record status of the discrepancy reported against such aircraft must not be any of these: Fresh, No Fault or Canceled.*

AIRCRAFT INCIDENT ANALYSIS BY INCIDENT AND INCIDENT TYPE REPORT

This report provides details of incidents reported against all aircraft in a reliability fleet.

8.1.40 DATA COLUMNS IN THE REPORT

Monthly Rate of Technical Incidents (FC)	Monthly rate of technical incidents reported for the fleet for flying cycles. (Number of incidents reported for the month / Total number of FC for the month) * Rate Calculation Factor for FC'
Monthly Rate of Technical Incidents (FH)	Monthly rate of technical incidents reported for the fleet for flying hours. (Number of incidents reported for the month / Total number of FH for the month) * Rate Calculation Factor for FH
12 Months Running Rate of Technical Incidents (FC)	The 12 month rate of technical incidents reported for the fleet for flying cycles. (Number of incidents reported in the past 12 months / Total number of FC in the past 12 months) * Rate Calculation Factor for FC Note: The data of the past 11 months for the calculation of 12 month rate is derived from the published reliability data.
12 Months Running Rate of Technical Incidents (FH)	The 12 months rate of technical incidents reported for the fleet for flying cycles. (Number of incidents reported in the past 12 months / Total number of FH in the past 12 months) * Rate Calculation Factor FH Note: The data of the past 11 months for the calculation of 12 month rate is derived from the published reliability data.
12 Months Running Total of Technical Incidents	The running average of technical incidents for the past 12 months For example, the 12 months running total of technical incidents for March 2016 will include the count of technical incidents reported from April 2015 to March 2016.

8.1.41 GRAPHIC DATA

Rate of Technical Incidents (FC)

Monthly rate of technical incidents (FC):

▸ (Number of incidents reported for the month / Total number of FC for the month) * Rate Calculation Factor FC

12 months running rate of technical incidents (FC):

▸ (Number of incidents reported in the past 12 months / Total number of FC in the past 12 months) * Rate Calculation Factor FC

Rate of Technical Incidents (FH)

Monthly rate of technical incidents (FH)

▸ (Number of incidents reported for the month / Total number of FH for the month) * Rate Calculation Factor FH

12 months running rate of technical incidents (FH)

▸ (Number of incidents reported in the past 12 months / Total number of FH in the past 12 months) * Rate Calculation Factor FH/FC

Incidents Analysis by Incident

A Pivot table and a graph depict the month-wise count of technical incidents, incident-wise.

Incidents Analysis by Incident Type

A Pivot table and a graph depict the month-wise count of technical incidents incident type-wise.

Incidents retrieval for reliability reporting

▶ The Occurrence Date and Time of the technical incident must span the month of reporting.

▶ The Status of the Occurrence Report must be "Confirmed" / "Approved" / "Processed".

▶ The Occurrence Type attribute of Occurrence reports must be set to "Required" in the Set Options activity.

For example, to solely include incidents of Occurrence Type "Tool / Equipment" in the reliability report, this Occurrence Type must be set to and all other Occurrence Types, such as "Aircraft Related- Maint", "Spill", "Aircraft Related- NonMaint", "Personnel Related", "Scheduled Maintenance", "Unscheduled Maintenance" and "Vehicle Related" must be set to 1 in the Set Options activity

DELAYS - CANCELLATIONS - SUBSTITUTIONS RATE REPORT – AN OVERVIEW

This report provides the system ATA-wise delay, cancellation and substitution rates reported for a reliability fleet. Information in this report is broken down into the following topics

- ▸ Delay-Cancellation rate graph
- ▸ Delay-Cancellation rate
- ▸ Delay-Cancellation-Substitution rate
- ▸ Delay rate
- ▸ Cancellation rate
- ▸ Substitution rate

8.1.42 GRAPHIC DATA

Delay / cancellation rate per Rate Calculation Factor FH or departures reported against the ATA by aircraft in the reliability fleet.

8.1.43 DATA COLUMNS

Delay-Cancellation rate

System ATA #	The System ATA against which delays/ cancellations are reported for a reliability fleet.
Description	The chapter description of System ATA.
Monthly Events	The number of delays/ cancellations reported against each System ATA in reliability fleet for
1 Month Rate	The rate of delays/ cancellations reported against each System ATA in reliability fleet, for the
3 Months Rate	The 3 months rate of delays/ cancellations reported against each System ATA in reliability fleet for the month of the report. The rate of delays and cancellations reported against the ATA by all the aircrafts in the reliability fleet for the previous three months. However, if the delay data for the past months is not available, the system displays "N/A"
12 Months Rate	The 12 months rate of delays/ cancellations reported against each System ATA in reliability fleet, for the month of the report. However, if the delay data for the past months is not available, the system displays "N/A"
Alert Value	The alert value for the Alert Type "Delay / Cancellation" for the System ATA as specified in the "Set Alert Level for Fleet" page in the "Setup Reliability Fleet" page.
Watch Value	The watch value for the Alert Type "Delay / Cancellation" for the System ATA as specified in the "Set Alert Level for Fleet" page in the "Setup Reliability Fleet" page.

`Delay-Cancellation-Substitution rate

System ATA #	The System ATA against which delays/ cancellations/substitutions are reported for a reliability fleet.
Description	The chapter description of System ATA.
Monthly Events	The number of delays/ cancellations/ substitutions reported against each System ATA in reliability fleet for the month of the report..
1 Month Rate	The rate of delays/ cancellations/ substitutions reported against each System ATA in reliability fleet, for the month of the report.

3 Months Rate	The 3 months rate of delays/ cancellations/ substitutions reported against each System ATA in reliability fleet, for the month of the report. However, if the delay data for the past months are not available, the system displays "N/A"
12 Months Rate	The 12 months rate of delays/ cancellations/ substitutions reported against each System ATA in reliability fleet, for the month of the report. However, if the delay data for the past months are not available, the system displays "N/A" in this field.
Alert Value	The alert value for the Alert Type "Delay / Cancellation / Substitution" for the System ATA
Watch Value	The watch value for the Alert Type "Delay / Cancellation / Substitution" for the System ATA

Delay rate

System ATA #	The System ATA against which delays/ cancellations are reported for a reliability fleet.
Description	The chapter description of System ATA.
Monthly Events	The number of delays reported against each System ATA in reliability fleet for the month of
1 Month Rate	The rate of delays reported against each System ATA in reliability fleet, for the month of the
3 Months Rate	The 3 months rate of delays reported against each System ATA in reliability fleet, for the month of the report. However, if the delay data for the past months are not available, the system displays "N/A"
12 Months Rate	The 12 months rate of delays reported against each System ATA in reliability fleet, for the month of the report. However, if the delay data for the past months are not available, the system displays
Alert Value	The alert value for the Alert Type "Delay" for the System ATA as specified in the "Set Alert
Watch Value	The watch value for the Alert Type "Delay" for the System ATA as specified in the "Set Alert

Cancellation rate

System ATA #	The System ATA against which delays/ cancellations are reported for a reliability fleet.
Description	The chapter description of System ATA.
Monthly Events	The number of cancellations reported against each System ATA in reliability fleet for the Month of the report.
1 Month Rate	The rate of cancellations reported against each System ATA in reliability fleet for the month
3 Months Rate	The 3 months rate of cancellations reported against each System ATA in reliability fleet, for
12 Months Rate	The 12 months rate of cancellations reported against each System ATA in reliability fleet, for the reported month. However, if the delay data for the past months are not available, the system displays

Alert Value	The alert value for the Alert Type "Cancelled" for the System ATA as specified in the "Set Alert Level for Fleet" page in the "Setup Reliability Fleet" page.
Watch Value	The watch value for the Alert Type "Cancelled" for the System ATA as specified in the "Set

Substitution rate

System ATA #	The System ATA against which delays/ cancellations are reported for a reliability fleet.
Description	The chapter description of System ATA.
Monthly Events	The number of substitutions reported against each System ATA in reliability fleet for the month of the report.
1 Month Rate	The 1 month rate of substitutions reported against each System ATA in reliability fleet for
3 Months Rate	The 3 months rate of substitutions reported against each System ATA in reliability fleet, for the month of the report. However, if the delay data for the past months are not available, the system displays
12 Months Rate	The 12 months rate of substitutions reported against each System ATA in reliability fleet, for the month of the report. However, if the delay data for the past months are not available, the system displays
Alert Value	The alert value for the Alert Type "Substitution" for the System ATA as specified in the "Set
Watch Value	The watch value for the Alert Type "Substitution" for the System ATA as specified in the "Set

✍ *Note: The substitution information is available only for System ATAs for which the 'Analysis Required?' attribute is set to "Yes" for the associated ATA in the "Set ATA Reporting Levels" page in the Setup Reliability Fleet.*

Count of delays, cancellations and substitutions for the report

Count of delays: This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following;

▸ Journey log Status is "Approved"

▸ The Flight Date must occur in the reported month

▸ Flight Status as "Delayed", with delay duration between the 'Reportable Delay' and 'Delay Limit' specified in the Setup Reliability Fleet activity.

▸ The 'Flight Ops Type' must be flagged for reliability analysis in the Set Options activity.

▸ The ATA # of the delay must be flagged for reliability analysis in the "Set ATA Reporting Levels" page in the Set Reliability Analysis activity.

▸ Delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in the Regularize Delay Record activity in the 'Flight Log' business component).

✍ *Note: Delay # should be flagged for reliability analysis in the 'Create Flight Delay Codes' page of the Common Masters business component.*

Count of cancellations:

This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following;

- Journey log Status is "Approved"
- The Flight Date must occur in the reported month
- Flight Status as "Cancelled"
- Flight Status as "Delayed', with delay duration over the Delay Limit specified in the Setup Reliability Fleet activity.

    > *Note: If the Delay Limit is not specified in the Setup Reliability Fleet activity, regardless of the delay duration it would be considered as 'Delayed".*

- The 'Flight Ops Type' must be flagged for reliability analysis in the Set Options activity.
- The ATA # of the Reason # of the cancellation / Delay # of the delay must be flagged for reliability analysis in the "Set ATA Reporting Levels" page in the Set Reliability Analysis activity.
- Reason # of the cancellation / Delay # of the delay is mapped to the Delay Category "Technical & A/C Equipment" (in the Regularize Delay Record activity in the 'Flight Log' business component).

    > *Note: Reason #/ Delay # should be flagged for reliability analysis in the 'Create Flight Delay Codes' page of the Common Masters business component.*

Count of substitutions:

This is equal to the number of journey log legs for all the aircrafts in the reliability fleet that satisfy the following;

- Journey log Status is "Approved"
- The Flight Date must occur in the reported month
- Flight Status as "Substituted"
- The 'Flight Ops Type' must be flagged for reliability analysis in the Set Options activity.
- The ATA # associated to the Reason # for substitution must be flagged for reliability analysis in the "Set ATA Reporting Levels" page in the Set Reliability Analysis activity.
- Reason # for the substitution is mapped to the Delay Category "Technical & A/C Equipment" (in the Regularize
- Delay Record activity in the 'Flight Log' business component).

    > *Note: Reason # should be flagged for reliability analysis in the 'Create Flight Delay Codes' page of the Common Masters business component.*

Delay rate computation

The Delay-Cancellations-Substitutions Rate report helps to analyze the delay rates for durations of one month, three months and 12 months.

The following parameters you specify in the Set Options activity (in the Reliability Analysis component) determine the way the delay rate for the month of the report.

- Basis for Rate Computation of Delay
- Rate Calculation Factor for FC/FH
- Rate Calculation Factor for No. of Departures

One Month delay rate is computed for the month of the report as shown below,

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 100", the delay rate will be,

- (Number of delays by the fleet in the month /Flight Hours by the fleet in the month) * 100

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 1000", the delay rate will be,

▶ (Number of delays by the fleet in the month /Flight Hours by the fleet in the month) * 1000

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of Departures is "Per 100", the delay rate will be,

▶ (Number of delays by the fleet in the month / No. of departures by the fleet in the month) * 100

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of

Departures is "Per 1000", the delay rate will be,

▶ (Number of delays by the fleet in the month / No. of departures by the fleet in the month) * 1000

Three months delay rate is computed for the previous three months including the reporting month, as follows, If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 100", the delay rate will be,

▶ (Number of delays by the fleet for three months /Flight Hours by the fleet for three months) * 100

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 1000", the delay rate will be,

▶ (Number of delays by the fleet for three months / Number of Flight Hours by the fleet for three months) * 1000

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of Departures is "Per 100", the delay rate will be,

▶ (Number of delays by the fleet for three months / No. of departures by the fleet for three months) * 100

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of Departures is "Per 1000", the delay rate will be,

▶ (Number of delays by the fleet for three months / No. of departures by the fleet for three months) * 1000

12 months: delay rate is computed for the previous 12 months including the reporting month, as follows,

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 100", the delay rate will be,

▶ (Number of delays by the fleet for 12 months /Flight Hours by the fleet for 12 months) * 100

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 1000", the delay rate will be,

▶ (Number of delays by the fleet for 12 months / Number of Flight Hours by the fleet for 12 months) * 1000

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of Departures is "Per 100", the delay rate will be,

▶ (Number of delays by the fleet for 12 months / No. of departures by the fleet for 12 months) * 100

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of Departures is "Per 1000", the delay rate will be,

▶ (Number of delays by the fleet for 12 months / No. of departures by the fleet for 12 months) * 1000

Cancellation rate computation

The Delay-Cancellations-Substitutions Rate report helps to analyze the cancellation rates for durations of one month, three months and 12 months.

The following parameters you specify in the Set Options activity (in the Reliability Analysis component) determine the way the cancellation rate for the month of the report.

▸ Basis for Rate Computation of Delay
▸ Rate Calculation Factor for FC/FH
▸ Rate Calculation Factor for No. of Departures

One Month cancellation rate is computed for the month of the report as shown below,

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per100", the cancellation rate will be,

▸ (Number of cancellations by the fleet in the month /Flight Hours by the fleet in the month) * 100

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per1000", the cancellation rate will be,

▸ (Number of cancellations by the fleet in the month /Flight Hours by the fleet in the month) * 1000

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of

Departures is "Per 100", the cancellation rate will be,

▸ (Number of cancellations by the fleet in the month / No. of departures by the fleet in the month) * 100

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of Departures is "Per 1000", the cancellation rate will be,

▸ (Number of delays by the fleet in the month / No. of departures by the fleet in the month) * 1000

Three months cancellation rate is computed for the previous three months including the reporting month, as follows,

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 100", the cancellation rate will be,

▸ (Number of cancellations by the fleet for three months /Flight Hours by the fleet for three months) * 100

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per

1000", the cancellation rate will be,

▸ (Number of cancellations by the fleet for three months / Number of Flight Hours by the fleet for three months) * 1000

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of

Departures is "Per 100", the cancellation rate will be,

▸ (Number of cancellations by the fleet for three months / No. of departures by the fleet for three months) * 100

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of

Departures is "Per 1000", the cancellation rate will be,

▸ (Number of cancellations by the fleet for three months / No. of departures by the fleet for three months) * 1000

12 months: cancellation rate is computed for the previous 12 months including the reporting month, as follows,

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per

100", the cancellation rate will be,

- (Number of cancellations by the fleet for 12 months /Flight Hours by the fleet for 12 months) * 100

    If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 1000", the cancellation rate will be,

- (Number of cancellations by the fleet for 12 months / Number of Flight Hours by the fleet for 12 months) * 1000

    If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of Departures is "Per 100", the cancellation rate will be,

- (Number of cancellations by the fleet for 12 months / No. of departures by the fleet for 12 months) * 100f the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of

Departures is "Per 1000", the cancellation rate will be,

- (Number of cancellations by the fleet for 12 months / No. of departures by the fleet for 12 months) * 1000

Substitution rate computation

The Delay-Cancellations-Substitutions Rate report helps to analyze the cancellation rates for durations of one month, three months and 12 months.

The following parameters you specify in the Set Options activity (in the Reliability Analysis component) determine the way the substitution rate for the month of the report.

Basis for Rate Computation of Delay

Rate Calculation Factor for FC/FH

Rate Calculation Factor for No. of Departures

One Month substitution rate is computed for the month of the report as shown below,

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 100", the substitution rate will be,

- (Number of substitutions by the fleet in the month /Flight Hours by the fleet in the month) * 100

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 1000", the substitution rate will be,

- (Number of substitutions by the fleet in the month /Flight Hours by the fleet in the month) * 1000

  If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of

    Departures is "Per 100", the substitution rate will be,

- (Number of substitutions by the fleet in the month / No. of departures by the fleet in the month) * 100

    If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of

Departures is "Per 1000", the substitution rate will be,

- (Number of substitutions by the fleet in the month / No. of departures by the fleet in the month) * 1000

Three months substitution rate is computed for the previous three months including the reporting month, as follows,

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 100", the substitution rate will be,

- (Number of substitutions by the fleet for three months /Flight Hours by the fleet for three months) * 100

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 1000", the substitution rate will be,

▶ (Number of substitutions by the fleet for three months / Number of Flight Hours by the fleet for three months) * 1000

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of Departures is "Per 100", the substitution rate will be,

▶ (Number of substitutions by the fleet for three months / No. of departures by the fleet for three months) * 100

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of

Departures is "Per 1000", the substitution rate will be,

▶ (Number of substitutions by the fleet for three months / No. of departures by the fleet for three months) * 1000

12 months: substitution rate is computed for the previous 12 months including the reporting month, as follows,

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 100", the substitution rate will be,

▶ (Number of substitutions by the fleet for 12 months /Flight Hours by the fleet for 12 months) * 100

If the Basis for Rate Computation of Delay is set to "Flying Hours" and the Rate Calculation Factor for FC/FH is "Per 1000", the substitution rate will be,

▶ (Number of substitutions by the fleet for 12 months / Number of Flight Hours by the fleet for 12 months) * 1000

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of

Departures is "Per 100", the substitution rate will be,

▶ (Number of substitutions by the fleet for 12 months / No. of departures by the fleet for 12 months) * 100

If the Basis for Rate Computation of Delay is set to "No. of Departures" and the Rate Calculation Factor for No. of Departures is "Per 1000", the substitution rate will be,

▶ (Number of substitutions by the fleet for 12 months / No. of departures by the fleet for 12 months) * 1000

OPERATIONAL INTERRUPTIONS DETAILS

This report displays information on the operational interruptions reported against all aircrafts mapped to the fleet.

‣ Summary of interruptions

‣ Summary of delays

‣ Summary of interruptions other than delays

‣ Delays graph

‣ Cancellations graph

8.1.44 DATA COLUMNS

Summary of interruptions

ATA #	The ATA associated with the interruption.
System ATA #	The System ATA to which the ATA # is mapped.
System ATA # Description	The name of the System ATA.
Major System ATA	The major system to which the System ATA is mapped.
Major System ATA # Description	The name of the major system.
Month	The month of the report.
Fleet	The identification number of the reliability fleet.
Aircraft	The registration number of the aircraft.
Number of Delays	The number of delays reported against the ATA during the month of the report.
Number of Cancellations	The number of cancellations reported against the ATA during the month of the report.
Number of Operational Interruptions other than (Delays and	The number of interruptions other than delays and cancellations reported against the ATA during the month of the report.

Summary of delays

ATA #	The ATA against which the delay is reported.
System ATA #	The identification number of the System ATA to which the ATA is mapped.
Major System ATA #	The major system to which the System ATA is mapped.
Major System ATA	The name of the major system ATA.
Delay Recorded	The flight date of the delay.
Fleet	The identification code of the reliability fleet.
Aircraft	The aircraft registration number.
Model	The model # of the aircraft.
MSN	The manufacturer serial number of the aircraft.
Journey Log #	The identification number of the journey log in which the delay is recorded.
Line #	The line number of the multiline in the Leg Details tab of the "Create Journey Log " page, where the delay details are recorded.

Flight #	The identification number of the flight associated with the journey log.

Leg #	The identification number of the leg of the journey in which the delay occurred.
Station	The code of the departure station where the delay occurred.
Delay Time (Min)	The duration of delay in minutes.
Delay Code	The delay code of the delay.
Delay Description	A short description of the delay.
Reason	The reason as recorded against the delay.
Action Taken	Any remedial action undertaken to resolve the delay.
Remarks	Any comments or additional information on the delay.
ATA #	The ATA against which the delay is reported.
System ATA #	The identification number of the System ATA to which the ATA is mapped.
Major System ATA	The major system to which the System ATA is mapped.
Major System ATA	The name of the major system ATA.
Delay Recorded	The flight date of the delay.
Fleet	The identification code of the reliability fleet.
Aircraft	The aircraft registration number.
Model	The model # of the aircraft.
MSN	The manufacturer serial number of the aircraft.
Journey Log #	The identification number of the journey log in which the delay is recorded.
Line #	The line number of the multiline in the Leg Details tab of the "Create Journey Log" page, where the delay details are recorded.
Flight #	The identification number of the flight associated with the journey log.
Leg #	The identification number of the leg of the journey in which the delay occurred.
Station	The code of the departure station where the delay occurred.
Delay Time (Min)	The duration of delay in minutes.
Delay Code	The delay code of the delay.
Delay Description	A short description of the delay.
Reason	The reason as recorded against the delay.
Action Taken	Any remedial action undertaken to resolve the delay.
Remarks	Any comments or additional information on the delay.

Summary of interruptions other than delays

ATA #	The ATA against which the delay is reported.
Operational Interruption	The name of the System ATA to which the ATA is mapped.
Recorded Date	The flight date of the interruption.
Fleet	The identification code of the reliability flight.
Aircraft	The registration number of the aircraft.
Journey Log #	The identification number of the journey log in which the delay is recorded.
Line #	The line number of the multiline in the Leg Details tab of the "Create Journey Log " page, where the delay details are recorded.
Flight #	The identification number of the flight associated with the journey log.
Leg #	The identification number of the leg of the journey in which the delay occurred.
Station	The code of the departure station where the delay occurred.
Reason	The reason as recorded against the delay.

Action Taken	The remedial action undertaken to resolve the delay.

Remarks	Any comments or additional information on the delay.

8.1.45   GRAPHIC DATA

▶   Delays graph: Systems ATA-wise delays and ATA-wise delays for each System ATA.

▶   Cancellations graph: Systems ATA-wise cancellations and ATA-wise cancellations for each System ATA.

OPERATIONAL INTERRUPTIONS DETAILS BY SYSTEM ATA

This report displays month-wise information on operational interruptions with reference to System ATAs for a reliability fleet.

Information in the report is segregated in these areas:

- Delays per System ATA
- Cancellations per System ATA
- Delays and Cancellations
- Other than Delay and Cancellations
- Graph-Delay by System ATA
- Graph-Delay by Major System ATA

8.1.46   DATA COLUMNS

Delays per System ATA

System ATA #	The System ATA against which delays are reported for a reliability fleet.
System ATA	The chapter description of System ATA.
Major System ATA	The Major System ATA against which delays are reported for a reliability fleet.
Major System ATA Description	The chapter description of Major System ATA.
No. of delays	Monthly count of delays recorded against the system ATA.
Total Time	Monthly total delay duration against the system ATA

Cancellations per System ATA

ATA #	The ATA against which the delay is reported.
Operational Interruption	The name of the System ATA to which the ATA is mapped.
Recorded Date	The flight date of the interruption.
Fleet	The identification code of the reliability flight.
Aircraft	The registration number of the aircraft.
Journey Log #	The identification number of the journey log in which the delay is recorded.
Line #	The line number of the multiline in the Leg Details tab of the "Create Journey Log " page, where the delay details are recorded.
Flight #	The identification number of the flight associated with the journey log.
Leg #	The identification number of the leg of the journey in which the delay occurred.
Station	The code of the departure station where the delay occurred.
Reason	The reason as recorded against the delay.
Action Taken	Any remedial action undertaken to resolve the delay.
Remarks	Any comments or additional information on the delay.

Delays and Cancellations

Provides month-wise count of delays and cancellations for each System ATA of the reliability fleet

Other than Delay and Cancellations

Provides month-wise count of operational interruptions for each System ATA of the reliability fleet

8.1.47   GRAPHIC DATA

▸   Delay by System ATA

▸   Delay by Major System ATA

DELAYS BY WEEK – ATA – DISPATCH RELIABILITY BY STATION REPORT

This report displays information on delays and the dispatch reliability for a reliability report group/ reliability fleet, reported during a month. Information in the report is displayed under following heads:

▶ Delay by Week

▶ Delay by System ATA

▶ Delay by Major System ATA

▶ Delay by Station

▶ Dispatch Reliability by departure stations

8.1.48   DATA COLUMNS

Delay by Station

Fleet	The reliability fleets associated with the reliability report group or the selected reliability fleet
Station	All the departure stations of reliability fleets against which delays are reported for the month.
Total	The sum total of delays in the month for a reliability fleet.
Departures	The total number of departures made by all aircrafts associated to the reliability report group/ reliability fleet.
Dispatch Reliability	100 – ((Total number of operational interruptions * 100) / Number of departures))

8.1.49   GRAPHIC DATA

A Dispatch Reliability for departure stations graph is also available for the specified month

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