RAAS Fleet Status Reporting and Defect Management Overview

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RAAS Fleet Status View

(A larger standalone jpeg graphic accompanies this document)

The RAAS Fleet Status view is available on demand, accessible at any time from the console home button located at the upper left of the RAAS screen (#1). The Fleet Status view is also available as a standalone webpage link accessible to users who do not have a RAAS login account, and is therefore easily distributed to Flight Operations and Charter Sales personnel who may not interact regularly with RAAS.

The output format of the RAAS Fleet Status view is somewhat customizable to customer requirements. Regardless of specific output format the objective of the Fleet Status view is to provide decision support relative to fleet availability by presenting all maintenance event and flight limitation data in a single comprehensive on-screen interactive report output. The Fleet Status view presents dynamic data, as current as is available in the RAAS database, and in this regard it is significantly more timely than an equivalent paper or PDF fleet status report that may be produced only periodically.

The information shown in the Fleet Status screen shot above is sorted first by Aircraft Type. Secondary sort criteria available includes “Aircraft SN”, “Most Hours Remaining”, “Most Landings Remaining” and “Most Calendar Remaining” (#2).

The colored sphere at the left of each aircraft row (#3) is intended to visually notify the user of the relative availability of each aircraft: Green indicates no immediate maintenance concerns. Yellow indicates the aircraft is considered serviceable and available but there is an airworthiness item outstanding. Red
indicates there is a due/overdue maintenance task or outstanding airworthiness item, or that the aircraft has been specifically identified as unserviceable.

The first line in each aircraft row displays the next due significant/drop dead maintenance task in terms of Calendar, Hours and Landings (#4). Note that the next due Calendar limited task will likely be different than the next due Hours limited task, and that the next due Landings limited task will likely be different than either the next due Calendar or Hours limited tasks. The Hours and Landings sections also display the “current” airframe hours and landings totals, which are always relative to the “As Of” date at the far left. (#5).

The Due data of each of the Calendar, Hours and Landings sections is linked to the task that is coming due next (#6). A user can click on the link to open a window, which in-turn will show the specific details of the maintenance task due. If the time remaining value in any of the Calendar, Hours and Landings sections is zero or less the time remaining value will be color coded red (#7). Any zero or less time remaining will also cause the colored sphere at the left of each aircraft row to turn red.

In each aircraft row there is an expandable/collapsible Outstanding Airworthiness Items section (#8). When this section is expanded it will show the list of outstanding airworthiness items for the aircraft as well as the relative time remaining of each. Click through links are available, which when clicked will open a window that showing the specific details of each outstanding airworthiness item. If the time remaining value for any airworthiness item is zero or less the time remaining value will be color coded red (#9).

Even if the Outstanding Airworthiness Items section is collapsed the title text of the section provides visual cues, including a sum-total of airworthiness items outstanding for the aircraft and the text itself will be colored yellow or red based on these conditions: Any time there is one or more outstanding airworthiness item the title text will turn yellow. If the time remaining value for any airworthiness item is zero or less the title text will turn red. In conjunction, the yellow and red colored title text will also cause the colored sphere at the left of each aircraft row to turn yellow or red accordingly.

Also in each aircraft row is an expandable/collapsible Scheduled Work Packs section (#10). When expanded this section will show the list of planned work packs for the aircraft, where a work pack is a collection of jobs and tasks scheduled for accomplishment by in-house maintenance production teams or perhaps a third-party MRO. Relative time remaining is shown for each event and click through links are available, which when clicked will open a window showing the contents of each work package. If the time remaining value for any scheduled work pack is zero or less the time remaining value will be color coded red (#11).

The title text of the Scheduled Work Packs section provides visual cues as well, including Days Remaining to the next work pack and status color coding. The title text will be colored yellow if there are one or more Scheduled Work Packs pending and will be colored red if the time remaining value for any Scheduled Maintenance Event is zero or less. The yellow and red colored title text has no effect on the colored sphere at the left of each aircraft row.
RAAS Discrepancy Console

The RAAS Discrepancy Console is essentially an “inbox” for defect reports. It is through this user interface that Maintenance Control and Tech Ops personnel are able to review defect reports, identify corrective action, and if necessary defer defects that are airworthiness or MEL status.

Defect reports are traditionally received via a flight journey log, radio communication or sometimes through verbal report. RAAS itself accommodates three methods of defect reporting including a) manual defect report creation directly via the RAAS Discrepancy Console, b) through flight journey log details input via the RAAS Flight Logs module and c) through the RAAS Electronic Maintenance Log tablet app for the cockpit.
RAAS Electronic Maintenance Log Tablet App

As an option RAAS offers Electronic Maintenance Log (EML) iOS/Android/Windows apps for the cockpit. Our EML apps are designed to allow defect reporting from the aircraft while inflight, closure and/or deferral of defects, display of recently accomplished work and cleared defects, and lists of next due items. The app is able to function in real-time or can work as an offline utility that will sync data to the main RAAS host once your tablet gains cellular or WiFi access.

Defect data is synchronized to the main RAAS host, which specifically will result in new defect reports arriving in the RAAS Discrepancy Console and status updates related to existing defects being pushed up to the tablet.
Discrepancy Escalation / Deferral

Once received, defect reports are typically evaluated to determine if the defect can be rectified through direct action, if the defect report is a nuisance report, if the reported defect is an airworthiness concern, and if rectification of the defect must be deferred to a later date.

In situations where the defect is either considered an airworthiness concern or must be deferred to a later date, then an appropriate RAAS user would escalate the defect report to the next level, referred to as a Job Card. The Job Card is essentially a work order line item that is assigned a number, allows for parts/material and human resource planning, and ultimately allows the RAAS user to schedule accomplishment of the defect rectification.

Full visibility of outstanding defects as well as planned scheduled maintenance is available in various areas in RAAS including Fleet Status Reporting.
**Historical Defect Reporting**

RAAS is approved for commercial aircraft maintenance operations under virtually all of the world’s significant regulatory authorities. A functional pre-requisite for the levels of approval RAAS has achieved is Continuous Airworthiness Monitoring, which is essentially a suite of reporting and analysis features that evaluate current and historical maintenance activities to help identify trends within the maintenance organization with a view to increasing fleet dispatch reliability while reducing maintenance costs. For these purposes defect management data in RAAS is accumulated into a historical data repository, and is continuously available for detail analysis.