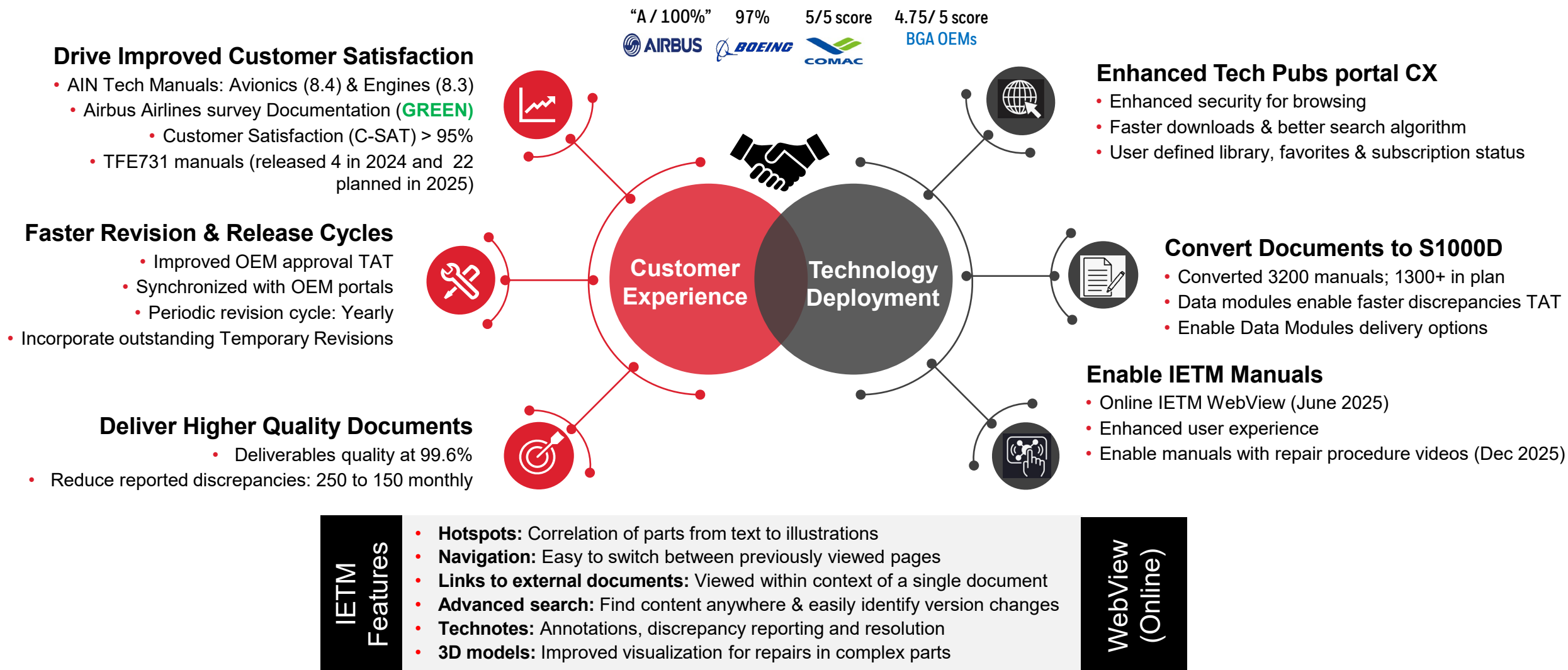


TECHNICAL PUBLICATIONS UPDATE

SURESH KANNAN

Honeywell

TECH PUBS | KEY IMPROVEMENT ELEMENTS



Improved Customer Experience | Adoption of Latest Technology

TECH PUBS | ENGINE MANUALS REVISION

Problem Statement

- **AIN Survey: Honeywell** low score (**8.3**) compared to **GE (9.0)**, **RR (8.5)** and **P&W (8.3)**
- **TFE manuals not revised** for years and in GCC/CPAB meet customers looking manuals with TRs & SBs incorporated
- Many outstanding Temporary Revisions (TR) and difficult to co-relate with the procedures
- Per industry specification (ATA 100/iSpec 2200/S1000D) TRs are to be incorporated within 90 days & SBs within 180 days to the respective manual

Driving factors and Implementation strategy

ATA / S1000D Guidelines

- Incorporate TRs within 90 days & SBs within 180 days in manual
- Enable quick revision in S1000D eliminate TRs

Engineering Requirements (Adhoc)

- Incorporate SBs / TRs for issues reported in field
- Incorporate after market requirements

Tech Pubs Strategy and go-forward plan

- Migration of legacy format to latest industry standard (iSpec 2200/S1000D)
- Timely incorporation of SBs, engineering updates & periodic revisions
- Enable Interactive features (IETM) for revised manuals

OEM / Customer Contract

- No contractual requirements for AS907 revision timeframe
- CFE manuals revised based on GE requirements

GCC / CPAB inputs

- Manuals not revised and latest updates not available
- Many TRs and unable to co-relate the procedures

Execution Plan

- Project schedule defined considering priorities and resource availability
- 35 TFE manuals (24 Classic & 11 NextGen) planned for revision
- Incorporate outstanding change drivers, TRs, SBs and publish manuals

Apply 80 / 20 concept to revise manuals | Improved customer experience and AIN scores

TFE731 ENGINE MANUALS REVISION STATUS - APR 2025

- **IPC Manuals**

- 8 Manuals published YTD. 3 in April (Classic TFE731-2/3/4/5)
- Incorporated 43 service bulletins, 14 temporary revisions & 31 discrepancies
- Targeting to publish balance (six) manuals by June 2025

- **Heavy Maintenance Manual (HMM)**

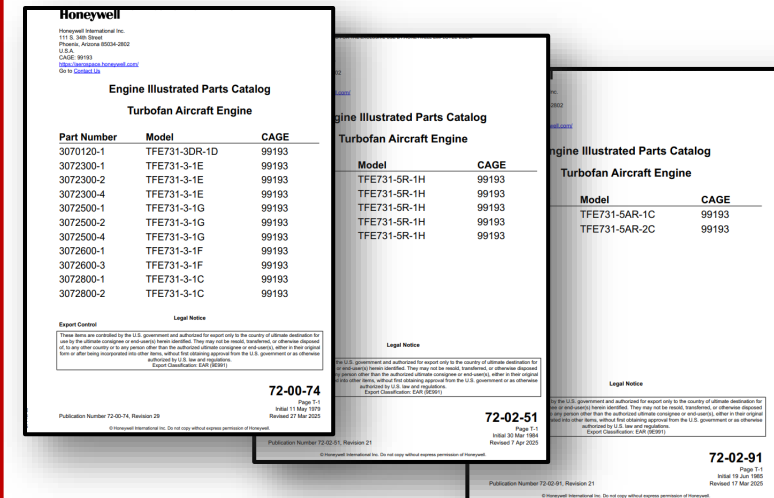
- 1 NextGen; ATA 72-03-07 review in final stage & target to publish by 5/15
- 2nd HMM (Classic) planned to be published in November 2025

- **YTD overall status**

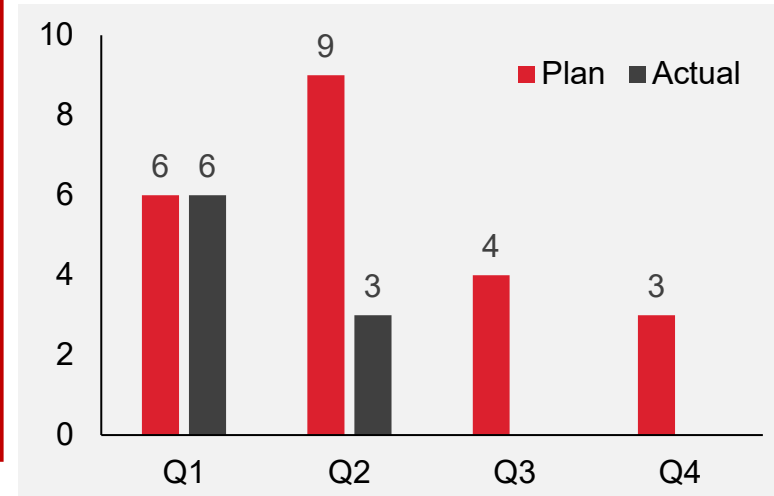
- Drafting : 2 manuals.
- Eng. review : 12 manuals.
- Published : 8 manuals.

- **Link to access published manuals is [Aero Technical Publications](#).**

3 Manuals Published in April



2025 Manual Revision Plan



All IPC Manual updates progressing to plan. 100% completion by June 2025

HTF7K MANUALS | ICA STRUCTURE RELEASED

Restructured HTF7K manuals to ensure compliance with the Instructions for Continued Airworthiness (ICA) and increased protection and control of Honeywell Intellectual Property (IP) by modifying where repair procedures are documented.



What is changing

- **Modification of Existing LMM & HMM Manuals:**
 - **Removal of Repair Instructions:** Removed repair procedures in the LMM and HMM created new repair manuals as described below
- **Renaming and Reorganization of New Manuals (LRM & HRM):**
 - Existing Repair Manual renamed as **Light Repair Manual (LRM)**. Select part level repair procedures removed from the LMM are integrated into the LRM
 - **New Heavy Repair Manual (HRM) with ATA number 72-05-28** is created and includes the remaining part repair procedures extracted from HMM
- **References Update:**
 - Removed CMM references from HMM & LMM. Relevant removal & installation instructions that were in CMMs are inserted into the LMMs.



Who has access to the manuals

- Owner / Operators: LMM
- Approved Line Service Centers | LMM & LRM
- Approved Heavy Maintenance Facilities | LMM, LRM, & HMM

List of HTF7K Manuals

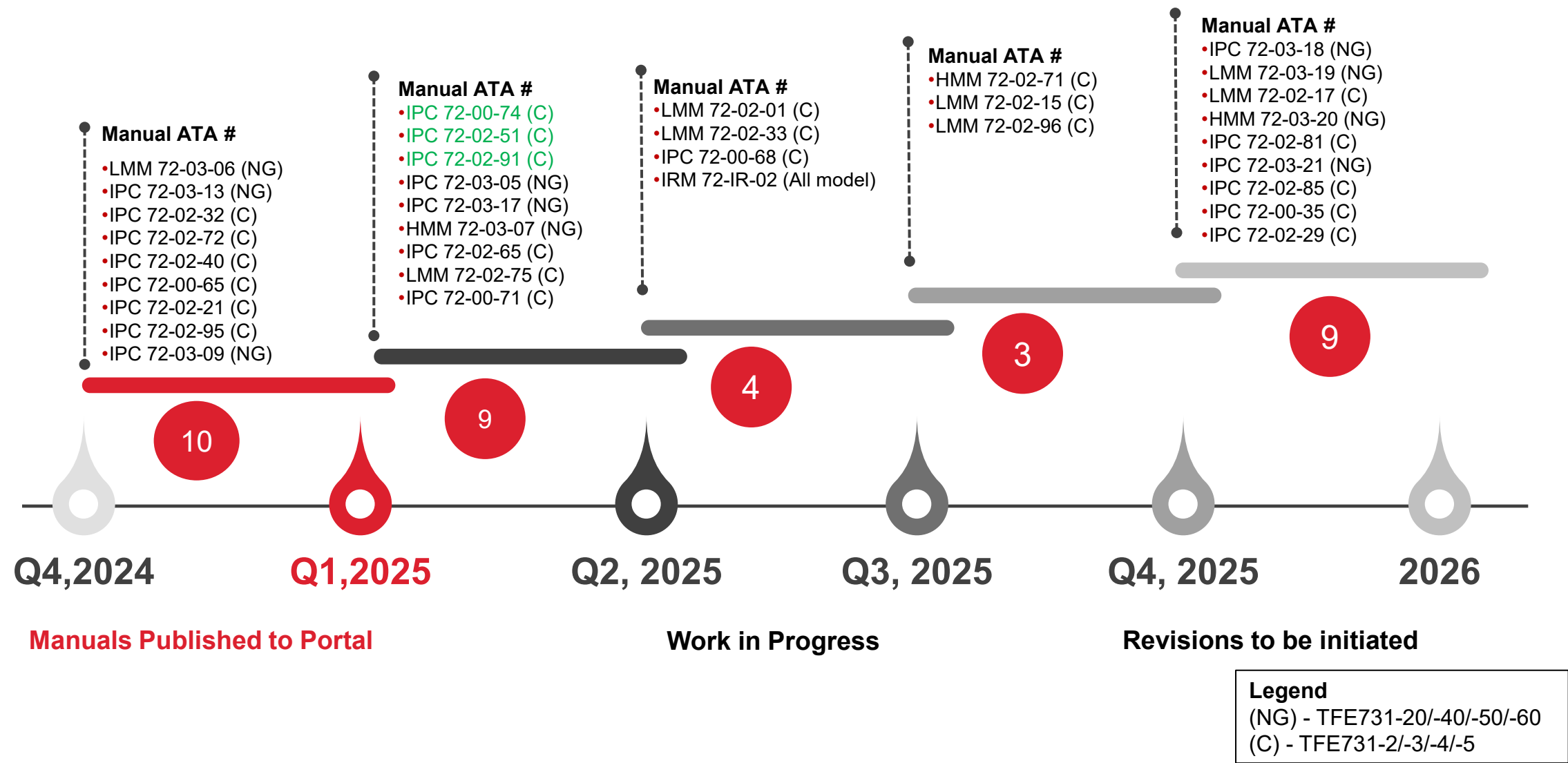
Manual	Model	ATA
HMM	AS907-1-1A	72-05-13
HMM	AS907-2-1A	72-05-23
HMM	AS907-2-1G	72-05-17
HMM	AS907-2-1S	72-05-26
HMM	AS907-3-1E	72-05-20
LMM	AS907-1-1A	72-05-12
LMM	AS907-2-1A	72-05-22
LMM	AS907-2-1G	72-05-16
LMM	AS907-2-1S	72-05-25
LMM	AS907-3-1E	72-05-19
LRM (RM)	ALL	72-05-27
HRM (new)*	ALL	72-05-28

*Note : * Heavy Repair Manual (HRM) is a new manual for heavy maintenance centers who have part repair capability. Currently this is only Standard Aero.*

Updated HTF7K manuals available in portal

APPENDIX

TFE731 MANUALS - TIMELINE AND PROGRESS



Revisions progressing to Plan, All manuals completion by 2026

TechPub Standard | ATA 100, ISPEC, S1000D



ATA 100	iSpec2200	S1000D
Provides basic ATA standards No support for digital content	Provided Digital Data Standard support Improve the document handling process within maintenance organization	Information are produced in Data Modules Enables quick revision; eliminates need of TRs. Support the Interactive Features (IETM)

Task Identification	No detail task identification system and available as a basic PDF.	Provides detailed task identification system and supports data retrieval using functional codes.	Maintenance procedures are created in a Data Module concept and identified using a Data Module Code numbering.
Tools / Equipment table	Tools / Equipment table covers the Nomenclature, Function and Part number information	Tools / Equipment table covers the Part number, description and sourcing information.	Tools and Consumables are available per data module covering Part number, Nomenclature and Sourcing information.
References / Hyperlinks	No internal references or hyperlinks to the related Figures, Tables or procedures.	Internal references and Hyperlinks to Figures, Tables and Related procedures as applicable are available.	Internal references and Hyperlinks to Figures, Tables, Related procedures, Hotspots, SBs and tool tips as applicable.
Figure Clarity	Low figure quality due to scanned images in PDF.	Figures are created in vector format; this enables the high graphics quality.	Provides advance feature such as Hotspots to co-relate the part with text (Procedural) and table (IPD) and to Pan / Zoom

NOTE: Refer to attached document for example on above



ATA 100 & Spec 2100 are matured; iSpec 2200 will continue to exist; S1000D will evolve

AERO TECH PUBS STRATEGY | 2024-2026

Strategic Pillar	Objectives / Strategies (3 years)	2023 (Baseline)	2026 (Goal)
CUSTOMER EXPERIENCE AIN, Airline, OEM Surveys	<ul style="list-style-type: none">• AIN survey score for Technical Manuals• AIRBUS Airlines survey - Technical Publications• Maintain top rating for OEM surveys & drive operator survey scores• Reduce Incoming DRs by 40% (170 to 100)• CSAT score >95% and participate in operators conferences• Revision of TFE Engine Manuals	Survey – Bottom Green Airbus-B,Boeing-97%,BGA-4.65 Incoming DRs >170 CSAT ~94% 0%	Survey - Top 3 Green Airbus-A,Boeing-100%,BGA-5.0 Incoming DR <100 CSAT >95% 90%
TECHNOLOGY DEPLOYMENT S1000D, IETM	<ul style="list-style-type: none">• 4500 Active manuals to S1000D, SBs to BGA customers in S1000D• Use of IETM manuals > 25% of customers• Implement web-based IETM manuals >300 manuals• Enable manuals with repair procedure videos and annotation• Automation / Self Help Order Management >30%	# manuals 3200 % of customers - 0% HTML manuals - 0 NA Self Help - 0%	# manuals 4500 % of customers - 25% HTML manuals – 300 Videos & Annotations Self Help - 30%
CYCLE TIME REDUCTION 30%(60 to 42 days)	<ul style="list-style-type: none">• Revision end to end cycle time reduction – 30% (60 days to 42 days)• Workflow management (Teamcenter centric) – 100%• Increase TechPubs reviews >55%	CT > 60 Days TC ~ 70% TP Reviews ~40%	CT < 42 Days TC ~ 100% TP Reviews >55%
PRODUCTIVITY IMPROVEMENT 30%(\$6.3M - \$4.5M)	<ul style="list-style-type: none">• Deploy Stylesheet / Automate CSDB – Auto Generate >30% content• Implement Data Module level authoring through CSDB	Auto Generation - 0% DM Authoring - 0%	Auto Generation >30% DM Authoring >20%
QUALITY <250 PPM	<ul style="list-style-type: none">• Improve quality – Internal <2500 PPM, external <250 PPM• Quality review automation – Reduce Manual checking by >50%• Improve periodic revision cycle (incorporation of SBs, TRs etc..) <180 Days	500 PPM Automation ~25% NA	< 250 PPM Automation >50% >75%

Scope:
TechPubs COE responsible for Development and Delivery of Technical Manuals for all Aerospace products of Honeywell

Type of Manuals:

- CMM / LMM / EM / AMM / EIPC
- Service Bulletins and Spare Parts Bulletin
- Service Information Letter and TRs

Repository:

- Total docs - 71K
 - Manuals - 17K
 - SBs - 46K
 - SILs - 7K
- Total Pages - 3.2M

Stakeholders:

- OEMs (Airbus, Boeing, BGA)
- Airlines, Operators (Delta, LHT etc.)
- ISE, Engineering (Engines, APU, Avionics etc.)
- ODA, FAA, R&O, Third Party Products
- Legal, Finance
- GBE, After Market
- Licensing, Export Control
- Regional team (CSPMs, FSEs...)
- ISC – Procurement, HGCLP
- Portal, IT
- Suppliers (SV, Cyient, Xerox etc.)
- Program, PP&C team (Program funded manuals)
- Divestments, Disputes

MAPERO UPDATES

JOE COLON

Honeywell

IN-SERVICE REPAIR MATERIALS

Honeywell

Honeywell Service Information Letter
(D202410004566) provides guidance for
procurement and distributors of Mapaero
Touch Up Kits (TUKs)

Integral Products (California, USA)

Small volume cases of Mapaero Topcoat in Stock

- Primer (SP 350) with (10) 45ml vials (9 months shelf life)
- Topcoat (XS 420) black (10) 45ml vials (3 months shelf life)



Coating, chemicals, tooling and
consumables are commercially available

IN-SERVICE MAPAERO REPAIR VALIDATION

Honeywell



RS on-wing (Mapaero Primer & Top-Coat brush-on) repair validation by Honeywell team at a service center

IN-SERVICE MAPAERO REPAIR VALIDATION – FOLLOW UP

Honeywell



Figure 1 - RS (November 2024)



Figure 2 - Post Repair (February 2025)

**Follow-up of on-wing repair: three months
after RS field repair validation**

AS907 CAMP TRENDING UPDATE

JOHN PURSELL

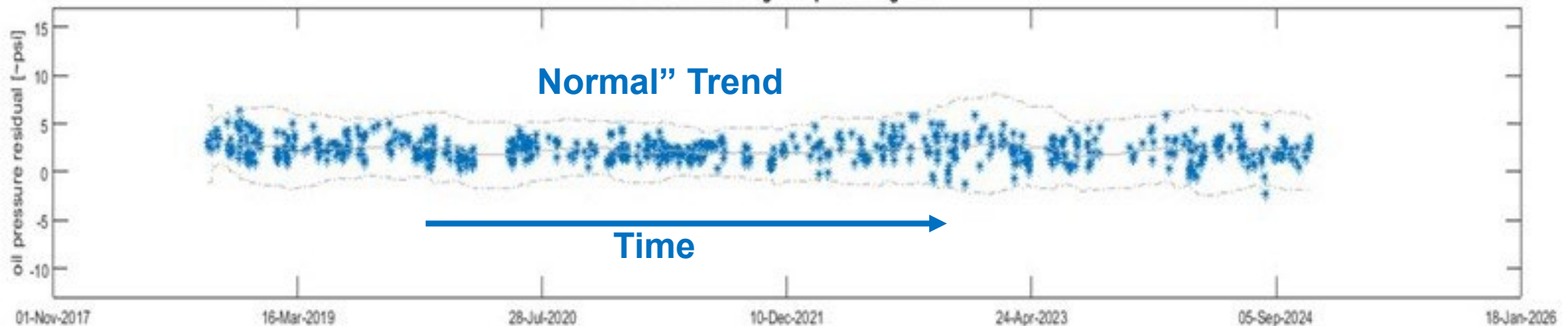
Honeywell

BI-MODAL ANALYSIS OPERATING SYSTEM

Bi-Modal Analysis – No. 4 Carbon Seal Health

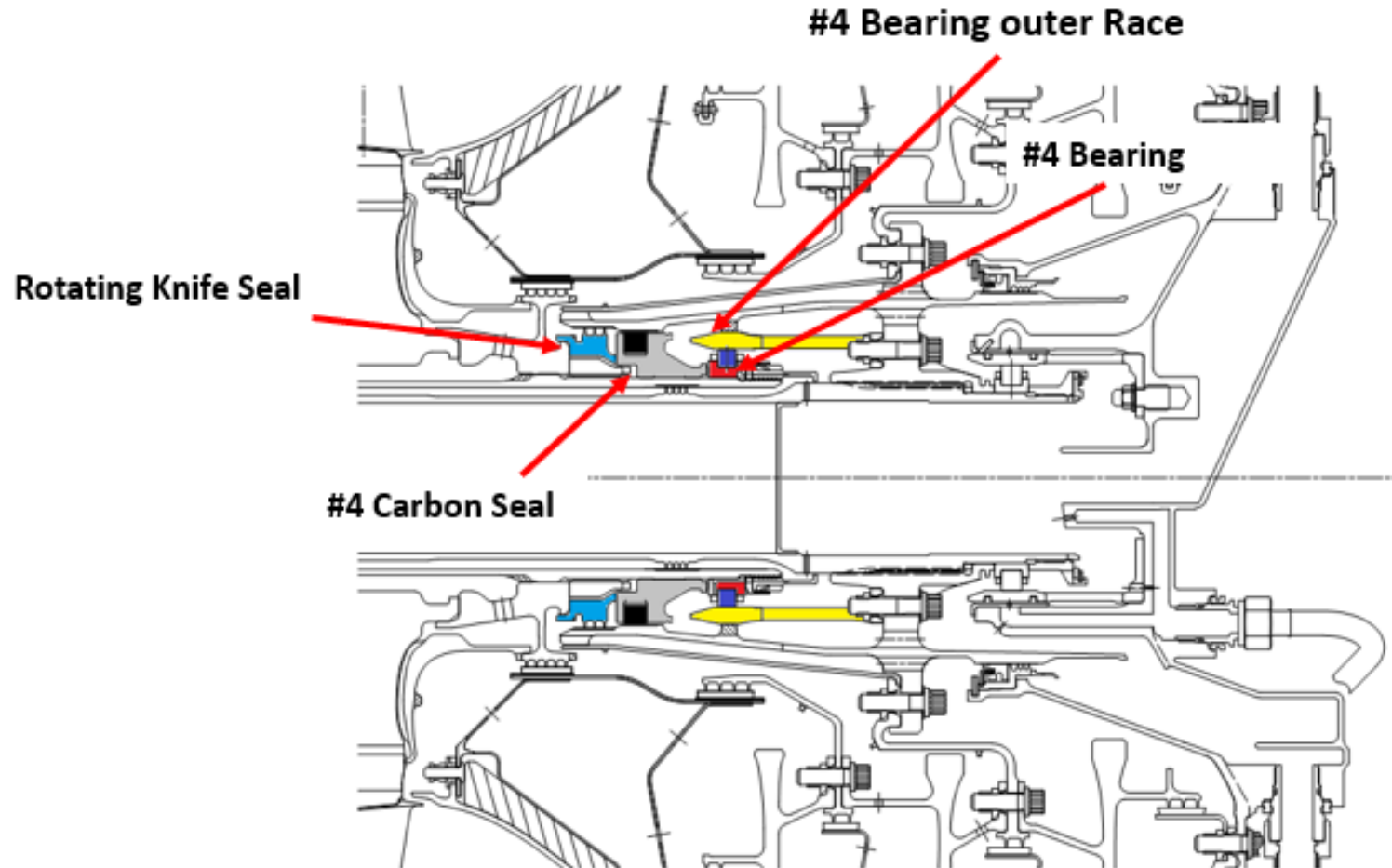
- With each take-off, the engine ECU takes a snapshot of multiple operating parameters
- Using an algorithm developed by Honeywell and CAMP the oil pressure values (at take-off) are trended
- This trend, known as “Bi-modality” is a scatter plot visualizing the take-off oil pressure differential
 - Pump output pressure / bearing sump pressure

• Indi



Bimodality Trending Provides Illustration of No. 4 Carbon Seal Health

BI-MODAL ANALYSIS OPERATING SYSTEM



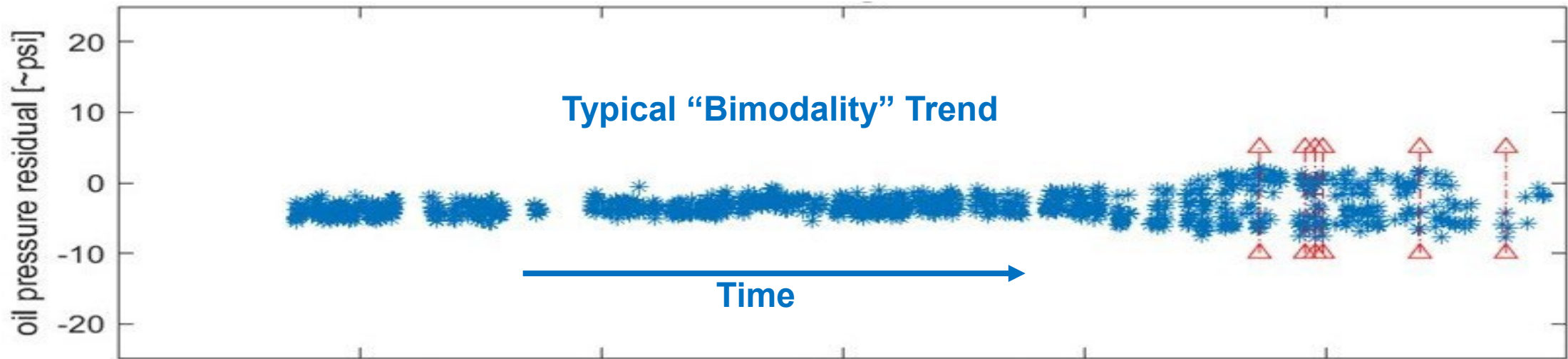
No. 4 Carbon Seal – Interstage Seal Design

BI-MODAL ANALYSIS OPERATING SYSTEM

Bimodality Application

- When an undesirable bimodality trend is observed, CAMP provides an alert to the operator
- Previously there was only one type of alert:

Alert 1 Replace No. 4 carbon seal within 90 days



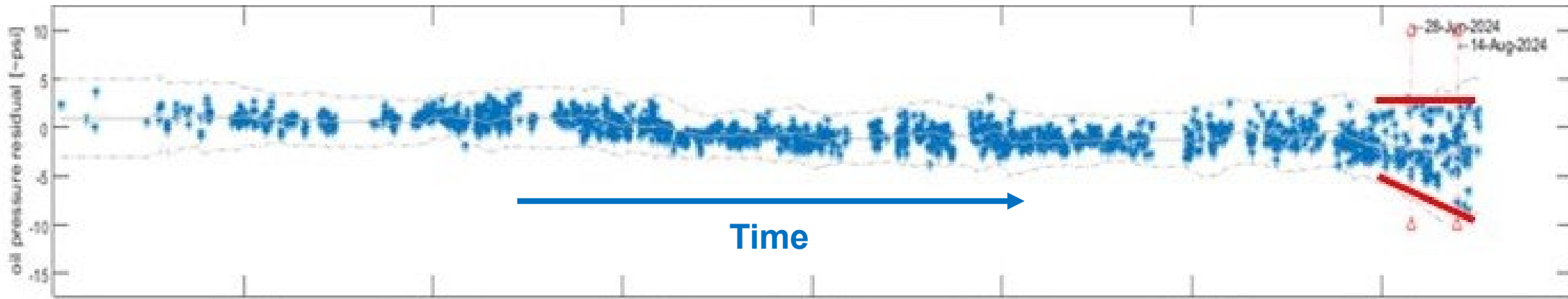
Alert 1 Replace No. 4 Carbon Seal Within 90 Days

BI-MODAL ANALYSIS OPERATING SYSTEM

Bimodality Application

- Based on field experience, a second type of alert may be issued (included in SIL AS907-3 update Feb 2025):

Alert 2 Replace No. 4 carbon seal within 10 operating hours may be issued when an accelerated increase in bimodality is observed



New Alert - Replace No. 4 Carbon Seal Within 10 Operating Hours

BI-MODAL ANALYSIS OPERATING SYSTEM

Bimodality Application

- Purpose of the two alerts is to prevent unscheduled down time / in-flight shutdown and extreme cost related to a No. 4 carbon seal issue
- When an alert is issued, Honeywell recommends the seal replacement occur as soon as possible within the recommended
- For example, try not to wait until day 89 in the 90 days
- Alert 2, while inconvenient, is designed to prevent costly in-flight shutdown events



Questions / Comments

Alerts Are to Prevent Unscheduled Maintenance Events

AS907 BYPASS DUCT HILOK ISSUE

JOHN PURSELL

Honeywell

AS907 BYPASS DUCT “HI-LOK” FASTENER ISSUE

Description:

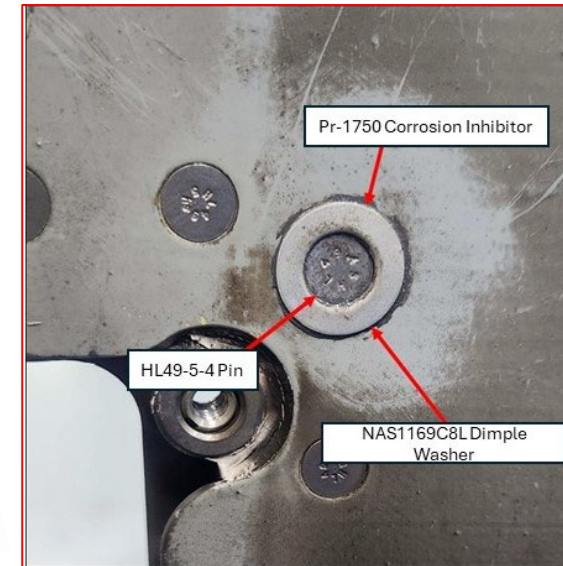
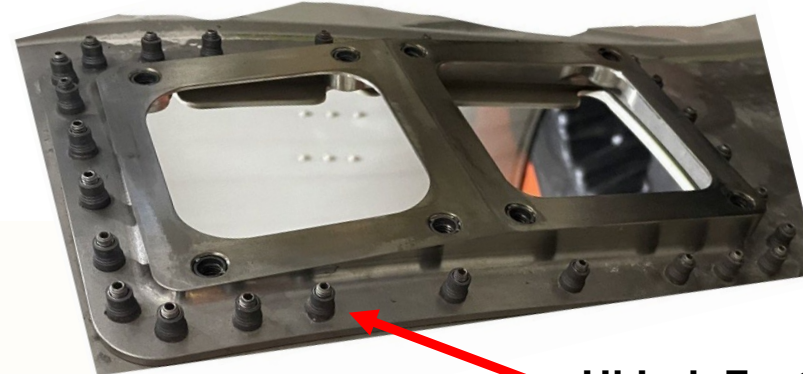
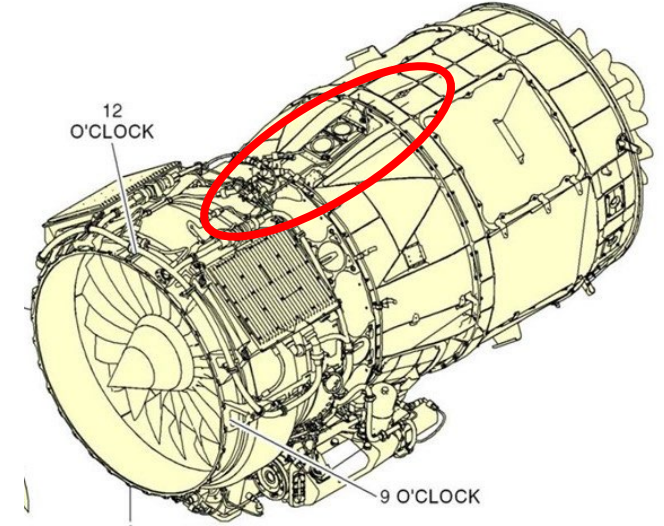
- Field reports indicate “Hi Lok” fasteners on outer fan bypass duct bleed port may loosen
- Does not result in any operational or safety condition

Status:

- Honeywell working with GKN to identify root cause and develop solution

Next Steps:

- Service bulletin created to add a dimpled washer repair
- Reinspect at scheduled 4800
- Bulletin in review / sign off
- Target Q2 for availability



ENSEMBLE – EDG-100 AND DIGITAL LOGBOOK

NAZAR JANABI

Honeywell

HONEYWELL CONNECTED ENGINES

ENSEMBLE

DIGITAL LOGBOOK

PRESENTED TO GCC- 04/30
NAZAR JANABI



EDG-100

Honeywell

Honeywell Confidentiality and IP Notice. The information disclosed by Honeywell on this New Feature Disclosure Form is the confidential and proprietary information of Honeywell International Inc. and is subject to copyright, contractual confidentiality and non-disclosure obligations and the following additional restrictions. The Honeywell intellectual property disclosed herein are Honeywell Core Technologies, are included in Honeywell's road map and engineering design documentation and may include Honeywell Features, patented technology and patent pending technology. Content must not be disclosed or used by the recipient in pursuit of patents or patent applications. All rights reserved.

Honeywell Confidential - ©2025 by Honeywell International Inc. All rights reserved.

HONEYWELL ENSEMBLE- CONNECTED ENGINE



Aircraft Mounted EDG-100
(Honeywell STC)



OEM Value:

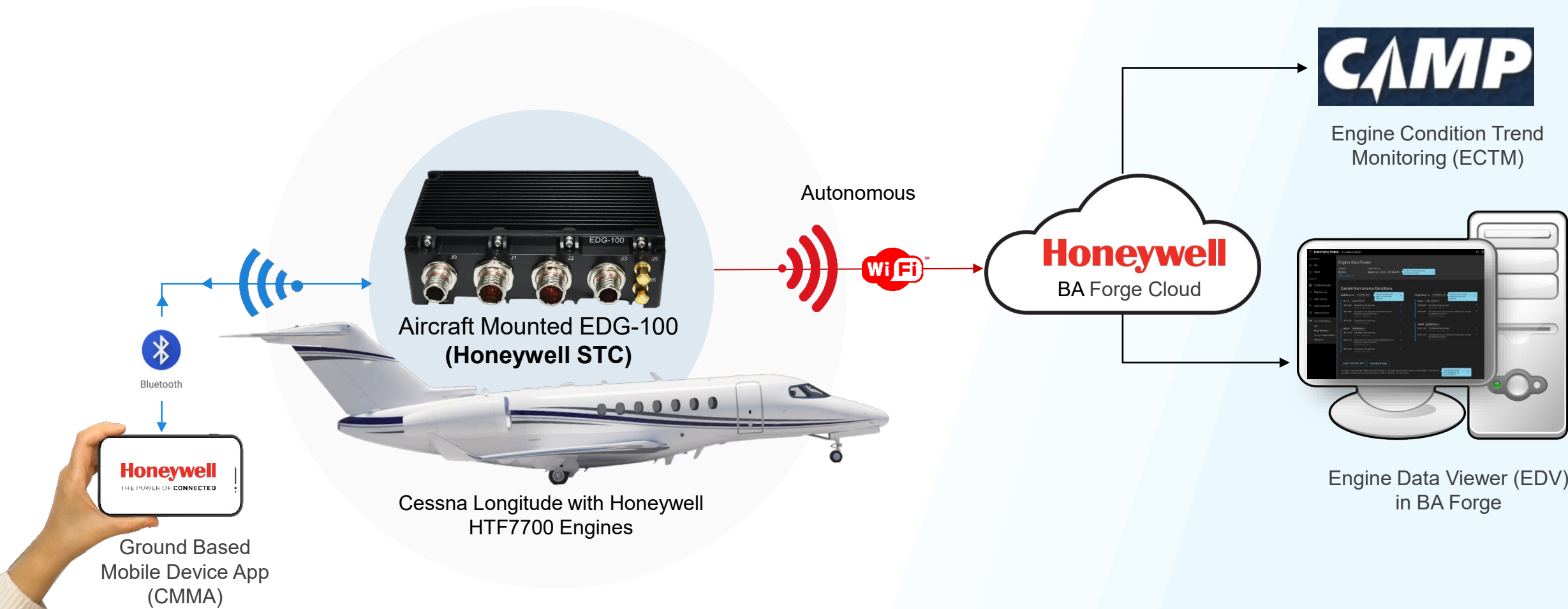
- Platform modernization
- Automation of FAA-required Engine data download
- Improve engine assurance

Aircraft mounted Engine Data Gateway (EDG) Edge node system automates transmitting data wirelessly via wi-fi from engine ECU to Forge and CAMP for Engine Health Monitoring

Principles	Description
Problem	HTF engine operators currently use a laptop and cable to manually perform engine data download. <u>No modern wireless system available</u>
Solution	Honeywell EDG-100 Connected Engines Service
Who is it for?	Business aviation operators using Honeywell's HTF7K turbofan engines
How will it be installed?	Via aircraft OEMs and Licensed engine service centers (Channel Partners) using Honeywell STC and PMA
What is the value?	<ul style="list-style-type: none">✓ Improve aircraft engine assurance✓ Enables advanced analytics/algorithms✓ Reduces engine maintenance burden.✓ Automated billing✓ Enables customer savings via Honeywell's Usage Based MSP program

Launched Ensemble Connected Engines Service in 2024

HONEYWELL ENSEMBLE ARCHITECTURE



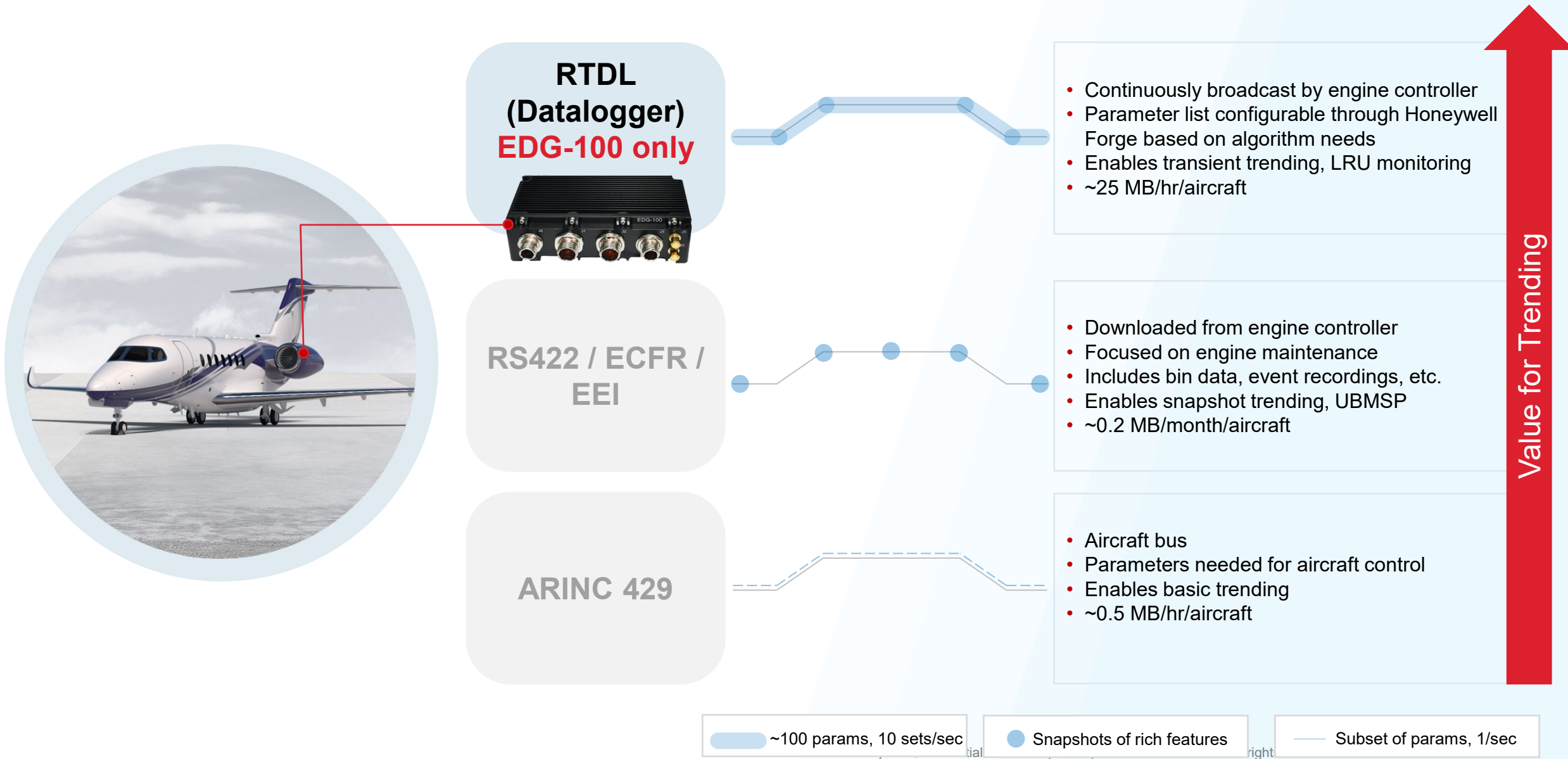
Type of HTF7K Data	ARINC 429	ECFR RS-422	RTDL RS-422
Available Data Parameters	~70	~700	~90,000

RS422 engine data critical for trending

FAA approval received for the STCs. Platforms completed:

- Bombardier - Challenger 300/350/3500
- Textron - Cessna Longitude
- Embraer - Legacy/Praetor

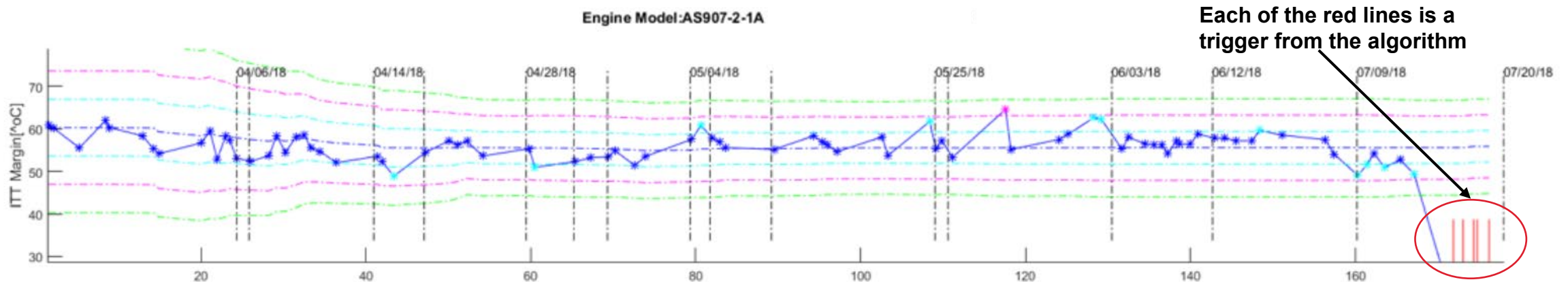
DATA SOURCE COMPARISON



WHY HONEYWELL ENSEMBLE

Rejected Take Off

- Pilot rejected takeoff on the runway because one engine began surging.
- Subsequent inspection revealed detached abradable material (used to ensure tight disc-shroud clearance).
- Algorithms had been previously developed to identify detached abradable before a compressor surge.
- Data received after the event confirmed that the signature of the detached abradable material was present **5 flights** before the rejected takeoff.
- **Had this aircraft been equipped with Honeywell Ensemble, early warning could have been communicated** to the operator, enabling them to borescope the compressor, see the missing abradable, and avoid the subsequent event.



Ensemble Provides Early Warning

KEY FEATURES OF HONEYWELL ENSEMBLE

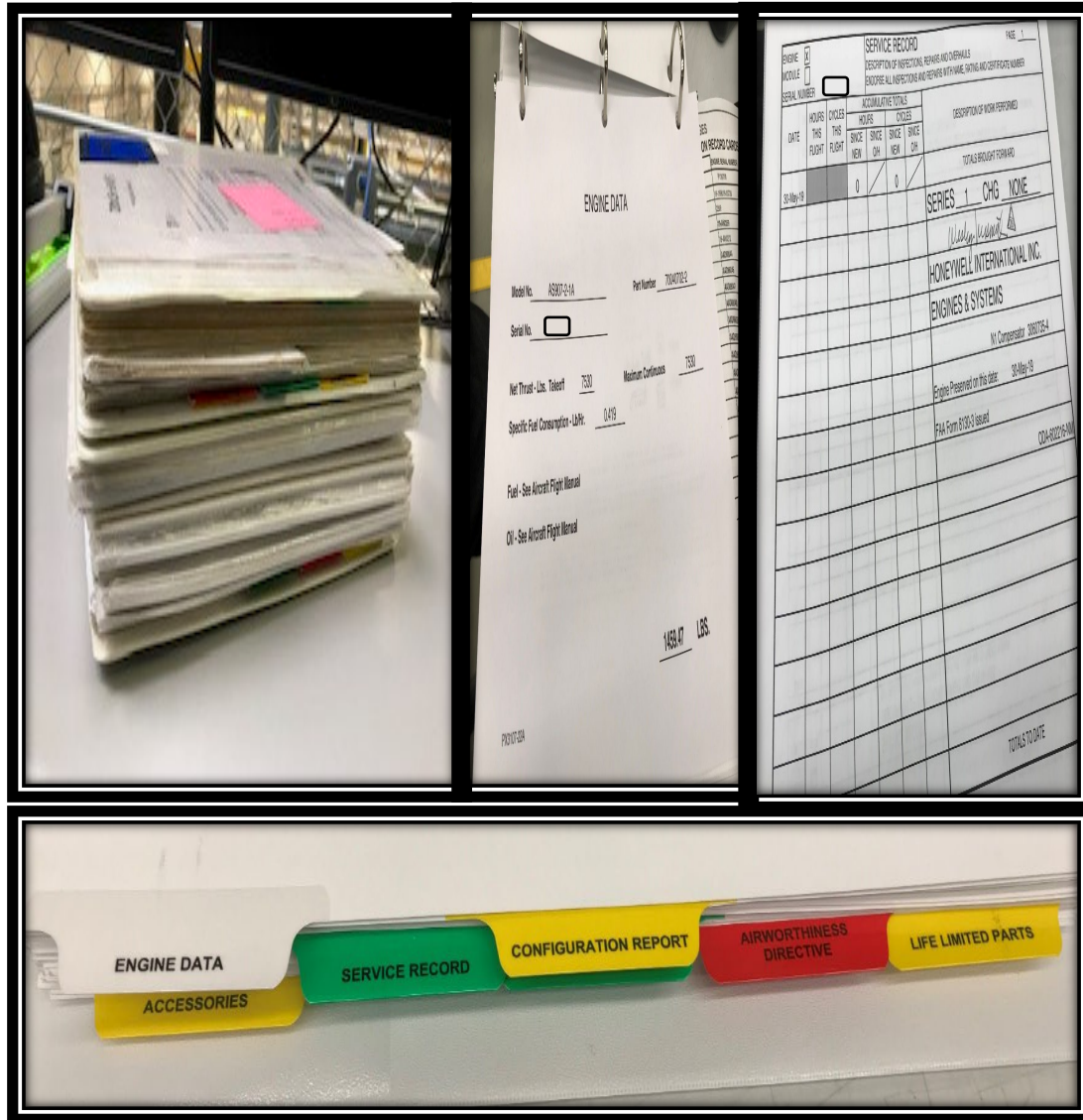
EDG-100 Edge Node



- Near Realtime access to engine parametric data (including data not available over ARINC429) for prognostic trending.
- Enables engine gas path and LRU prognostics to identify issues prior to a flight deck effect in the cockpit, avoiding operational disruption
- Connects via Wi-fi. Honeywell recommends pairing device to on-board aircraft wi-fi system
- Records real time engine data during flight, but transmits on the ground (only)
- STC only
- Data meets and exceeds requirements of Honeywell MSP program (ECFR and RTDL files)
- Wireless software upload capability
- Connects to RS422 port, allowing automatic download of the required engine ECFR snapshot data
- Captures timeseries engine data throughout entire flight
- Enables recording of any engine ECU software parameter, and over the air updates to parameter list
- Cyber Security tested and approved (DAL A Certified)

Improves access to engine data / Saves customers time and money

DIGITAL LOGBOOK- CONNECTED ENGINE



A block chain secured; cloud hosted, patented digital solution that improves security, searchability, and availability of the engine logbook.

Principles

Problem

Bulky, paper three-ring binders that is vulnerable to damage, loss and not searchable.

Solution

Honeywell Digital Engine Logbook

Who is it for?

Business aviation operators using Honeywell's HTF7K turbofan engines

How will it be deployed?

Via Honeywell MyAerospace Portal, customer signs up and upload scanned copy of their paper logbook.

What is the value?

24/7 web-based access to engine fleet using DLB:

- ✓ Quick review of engine configurations, service records, bulletins, and directives
- ✓ Detailed LLP and blade breakdowns
- ✓ Reduces technician/inspector review time, speeding up turnaround
- ✓ Easily transferable to customers, MROs, and new buyers
- ✓ Enhances audit-readiness and prevents lost logbooks

DIGITAL LOGBOOK – WHERE IS THE NEED?

Challenges – Paper Engine Logbook (current format)

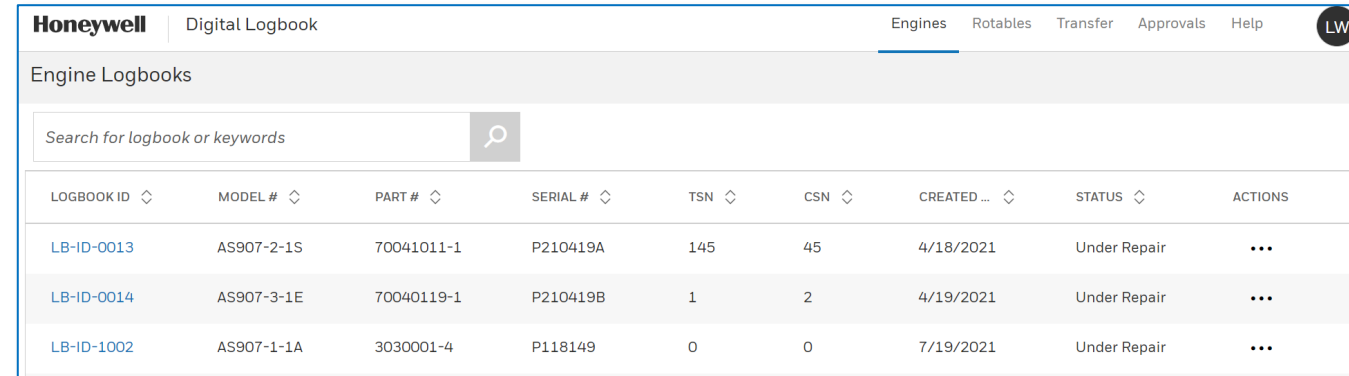


Goal:

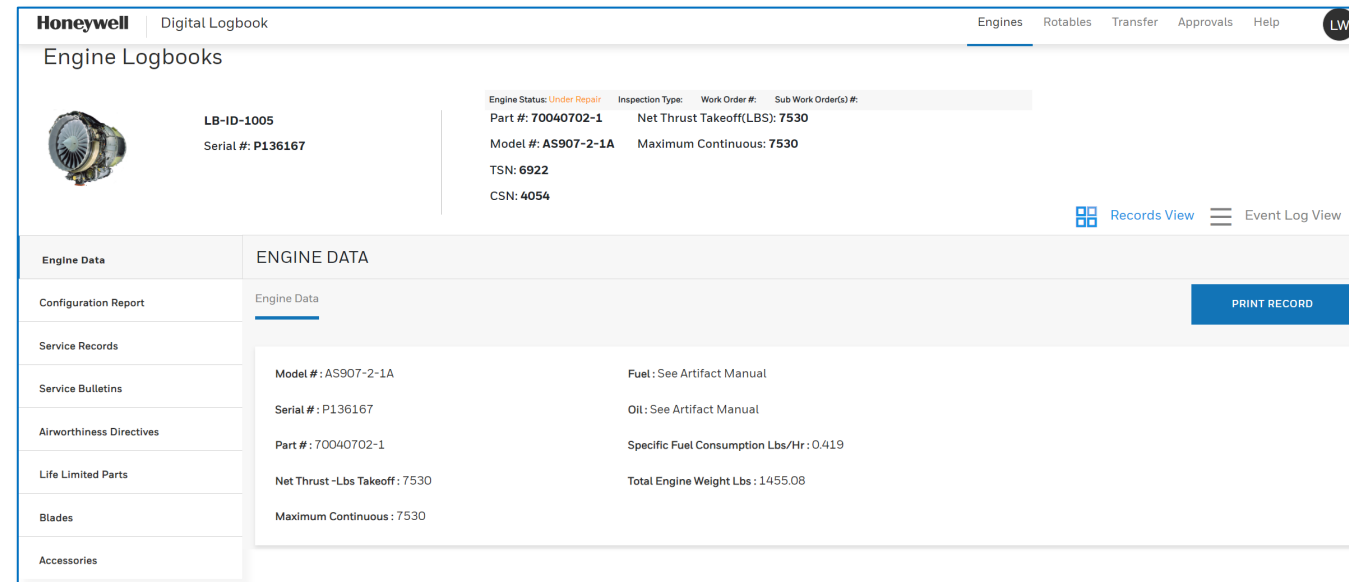
Establish new method to better maintain engine maintenance records throughout the life of the engine


DIGITAL LOGBOOK: BENEFITS

- ✓ 24/7 web-based access to entire fleet of engines utilizing DLB
- ✓ Review and search engine configuration, Service Records, Service Bulletins, and Airworthiness Directives applicable to each engine in minutes instead of hours/days
- ✓ Detailed breakdown of LLPs and blades installed on each engine
- ✓ Reduces technician / inspector time to review and update engine logbook; leads to quicker turnaround time
- ✓ Digitally transferrable to customer/operators, MRO facilities for repairs, and new customers upon sale (easy to grant access)
- ✓ Improves audit-readiness
- ✓ Increases AC/Engine value at time of sale
- ✓ Eliminates lost logbooks



Honeywell Digital Logbook								
Engines Rotables Transfer Approvals Help LW								
Engine Logbooks								
Search for logbook or keywords								
LOGBOOK ID	MODEL #	PART #	SERIAL #	TSN	CSN	CREATED ...	STATUS	ACTIONS
LB-ID-0013	AS907-2-1S	70041011-1	P210419A	145	45	4/18/2021	Under Repair	...
LB-ID-0014	AS907-3-1E	70040119-1	P210419B	1	2	4/19/2021	Under Repair	...
LB-ID-1002	AS907-1-1A	3030001-4	P118149	0	0	7/19/2021	Under Repair	...



Honeywell Digital Logbook								
Engines Rotables Transfer Approvals Help LW								
Engine Logbooks								
 LB-ID-1005 Serial #: P136167								
Engine Status: Under Repair Inspection Type: Work Order #: Sub Work Order(s) #: Part #: 70040702-1 Net Thrust Takeoff(LBS): 7530 Model #: AS907-2-1A Maximum Continuous: 7530 TSN: 6922 CSN: 4054								
Records View Event Log View								
Engine Data								
ENGINE DATA								
Configuration Report								
Engine Data								
Model #: AS907-2-1A Fuel: See Artifact Manual								
Serial #: P136167 Oil: See Artifact Manual								
Part #: 70040702-1 Specific Fuel Consumption Lbs/Hr: 0.419								
Net Thrust -Lbs Takeoff: 7530 Total Engine Weight Lbs: 1455.08								
Maximum Continuous: 7530								
PRINT RECORD								
Service Records								
Service Bulletins								
Airworthiness Directives								
Life Limited Parts								
Blades								
Accessories								

DLB USER INTERFACE SCREENSHOTS (1 OF 3)

Honeywell | Digital Logbook

Honeywell's Digital Logbook is the modernized, integrated engine solution that brings the paper logbook into the future, delivering complete traceability, decreased downtime, and the potential for increased engine resale value.

Honeywell's Digital Logbook is here to help you take off into the future of engines.

GO TO APPLICATION

Step 1: Log in to DLB via Weblink (username and password required)

Engine Logbooks

Search for logbook or keywords

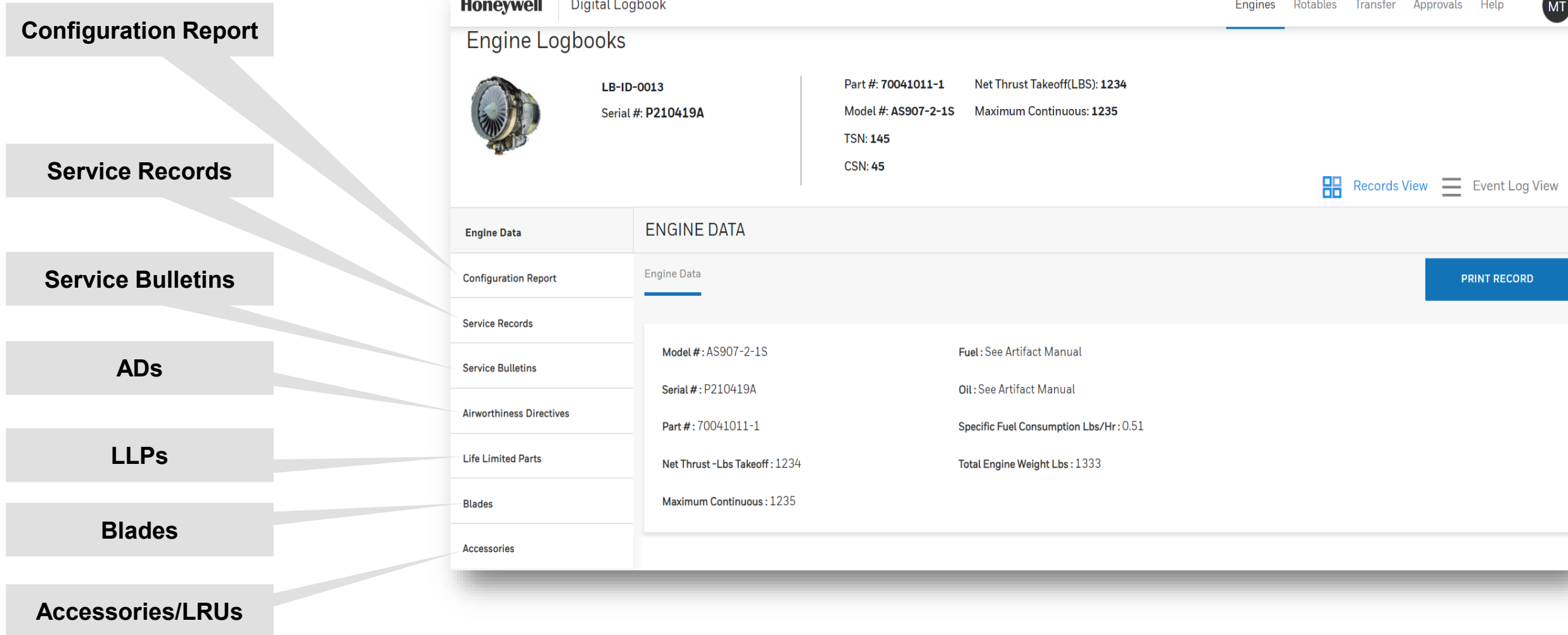


LOGBOOK ID ▾	MODEL # ▾	PART # ▾	SERIAL # ▾	TSN ▾	CSN ▾	CREATED ON ▾	STATUS ▾	ACTIONS
LB-ID-0013	AS907-2-1S	70041011-1	P210419A	145	45	4/18/2021	Under Repair	...
LB-ID-0014	AS907-3-1E	70040119-1	P210419B	1	2	4/19/2021		
LB-ID-1002	AS907-1-1A	3030001-4	P118149	0			Under Repair	...
LB-ID-1003	AS907-3-1E	70040119-1	P131102	1227.2	764	8/25/2021	Under Repair	...
LB-ID-1004	AS907-3-1E	70040119-1	P131102	2781.05	2490	9/23/2021	Under Repair	...
LB-ID-1005	AS907-2-1A	70040702-1	P136167	6922	4054	1/20/2022	Under Repair	...

Step 2: A list of the organization's engines will be shown. Select Engine SN to access DLB

Web based UI that is easy to access; intuitive to explore

DLB USER INTERFACE SCREENSHOTS (2 OF 3)



DLB USER INTERFACE SCREENSHOTS (3 OF 3)

Engine Logbooks



LB-ID-0013
Serial #: **P210419A**

Part #: **70041011-1** Net Thrust Takeoff(LBS): **1234**
Model #: **AS907-2-1S** Maximum Continuous: **1235**
TSN: **145**
CSN: **45**

Records View

Event Log View

- Engine Data
- Configuration Report
- Service Records
- Service Bulletins
- Airworthiness Directives
- Life Limited Parts
- Blades
- Accessories

CONFIGURATION REPORT

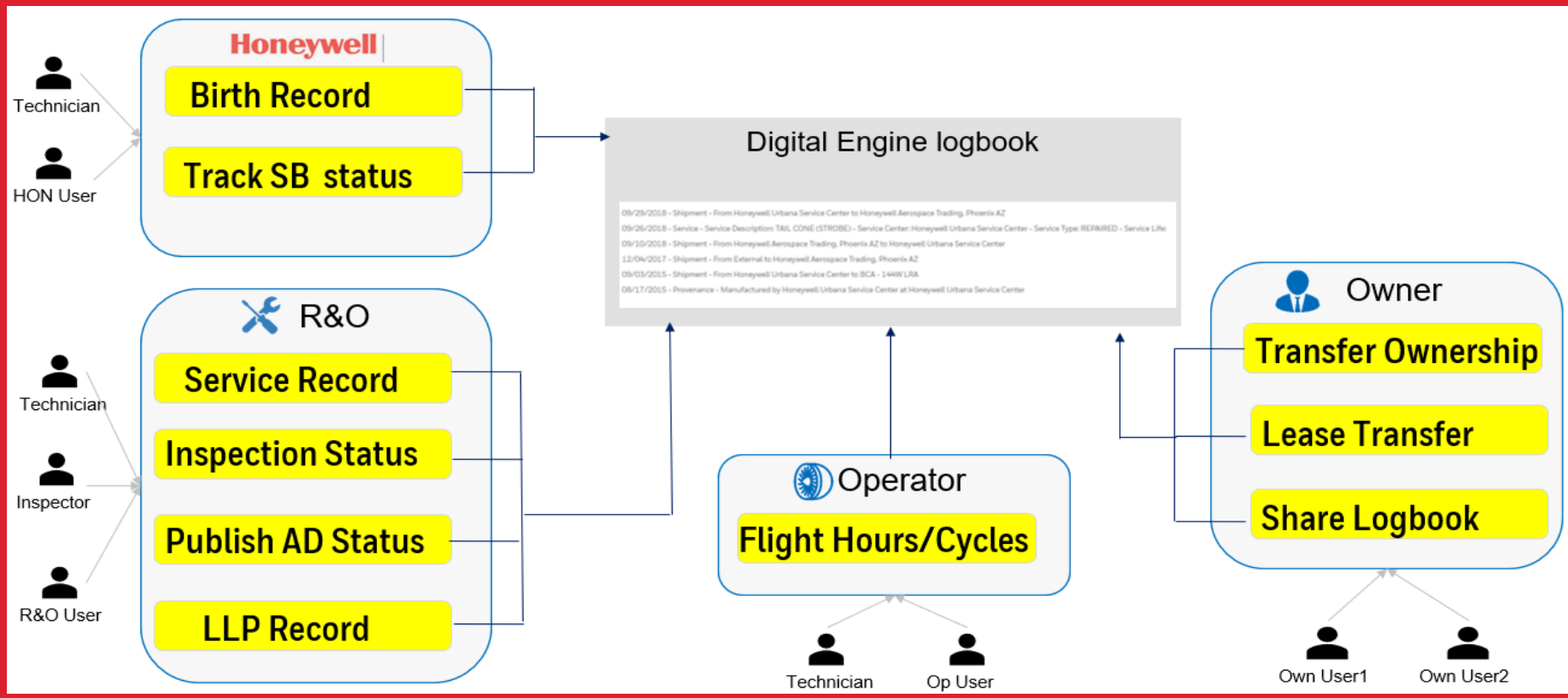
Search for document or keywords

PRINT RECORD

BOM	MATERIAL	MATERIAL DESCRIPTION	REV	SERIAL NUMBER	LOT NUMBER	BATCH	REF.DES	QUANTITY
1	321 5772-3	VALVE SHUTOFF. PRESS	-	2000		NEW		1
1	442322	MODU L E.FILTER ASSEMBLY INSTALLATION OF	C	FMJ 1 9 1 6		NEW		1
2	2688742	HOUSING ASSY FILTER MODULE	B	005 1 0 1 -X-2049				1
3	2687249	HOUSING F I L T E R M O D U L E (CSTG)						1
2	26872 1 0	VALVE & SLEEVE ASSY FILTER BYPASS (MATCH	B	1 50529-1 280				1
2	271 8964	SWITCH.FUEL DUAL FUNCTION	A	1 653				1
1	442324	H M U	D	FHC2005				1
2	2687693	VALVE & SLEEVE ASSY PRESSURIZING (MATCH	C	1 50529-1 484				1
2	2687957	VALVE & SLEEVE ASSY BYPASS(MATCHED)	E	1 50529-0631				1
2	2688032	BODY ASSEMBLY .MAIN	C	005 1 01 -0A3306				1

INTERACTING W/ DIGITAL LOGBOOK

DIGITAL LOGBOOK powered by TRUSTFLOW



US PATENT # 11368304

Blockchain Network



Questions: Ensemble@Honeywell.com

THANK YOU



Aircraft Mounted EDG-100
(Honeywell STC)



AS907 DUAL FUNCTION FUEL SWITCH RELIABILITY

YVAN LAJOIE

Honeywell

Dual Function Fuel Switch Reliability

Problem Description:

Increased number of unscheduled removals on the Challenger 3500 and Praetors. The dual function switch provides 1) impending bypass pressure of the filter assembly (FFM) and 2) the fuel filter inlet temperature.

Typical associated MCIDs 0105/0106 = Fuel temperature fault

MCIDs 0130/0131/0132 = Fuel temp/bypass fault

Related CAS message Challenger 300/350/3500

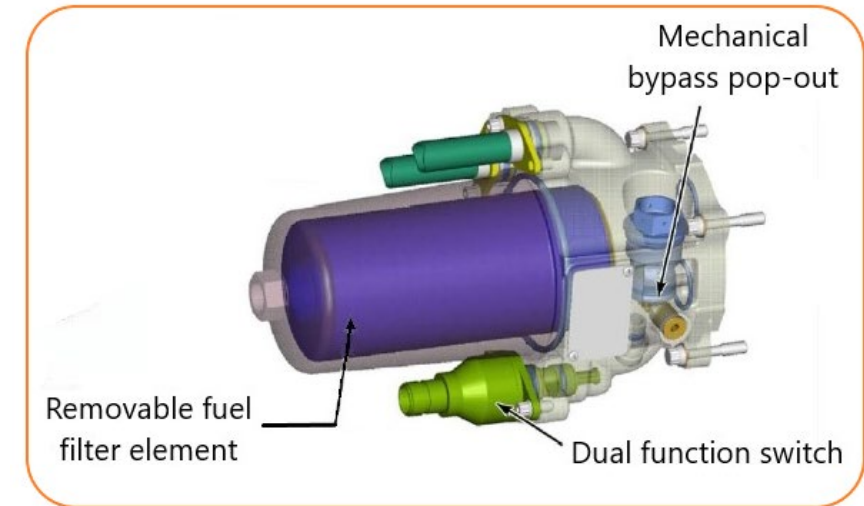
L/R ENG FUEL TEMP LOW
L/R ENGINE FUEL BYPASS
L/R ENGINE FAULT

Criteria to Close:

- Improve Dual function switch availability
- Root cause investigation

Status & Dates:

- Review usage history – Completed Q2
- Received failed switches – Need to send for material analysis – target Q2
- If needed work with the supplier



Fuel Filter Module (FFM) P/N 442282 or P/N 442322

FUEL DUAL FUNCTION SWITCH USAGE HISTORY & CONFIG

- Initial configuration P/N 2718859 Dual function fuel switch & kit P/N 351119
- SB AS907-73-9003 introduced P/N 2718964 Dual function fuel switch & kit P/N 648027 (May 2011)
- Alternate P/N 82010664-001 (Custom Control Sensors) via SPB D202406004402 and SB AS907-73-9003 rev 1

Usage history for P/N 2718964:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2022	1	0	1	0	0	0	0	1	0	1	0	0	4
2023	0	0	0	0	0	0	0	0	0	0	0	0	0
2024	0	0	0	0	1	0	3	2	1	2	1	4	14
2025	1	1	1	0									3

Usage history fo P/N 648027 (Kit)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2022	0	0	2	1	0	0	0	0	0	0	0	1	4
2023	0	0	1	1	1	0	0	0	1	0	1	0	5
2024	0	1	5	0	0	0	2	2	3	0	3	0	16
2025	3	1	2	1									7



Initial configuration
P/N 2718859
Hydra-Electric



Post SB
AS907-73-9003
P/N 2718964
Hydra-Electric

AS907-1-1A, AS907-2-1A, AS907-2-1G, AS907-2-1S and AS907-3-1E

Feb 6, 2025 - SPB D202406004402 – Introduce a new Fuel Impending Bypass Switch P/N: 82010664-001, as an alternate for the P/N: 2718964.

AS907-1-1A only - AS907-73-9003 rev 1 issued April 9, 2025 to add P/N 82010664-001 as alternate

Note: Either dual function switch, P/N 82010664-001 or P/N 2718964, will be included in the dual function fuel switch kit P/N 648027.

Quantity 30 Combined Orders for the Fuel Dual Function Switch and Kit for 2024

SWITCH P/N 2718964 OR 82010664-001 ARE BOTH USED IN PRODUCTION



Fuel Filter Module Assy



Custom Control Sensors LLC
Cage code 09049

New Fuel Impending Bypass Switch Alternate P/N 82010664-001 Now Available

AS907 TOWER SHAFT BEARING UPDATE

JOHN PURSELL

Honeywell

AS907 UPPER TOWER SHAFT BALL BEARING ISSUE – 3033024-6

Description

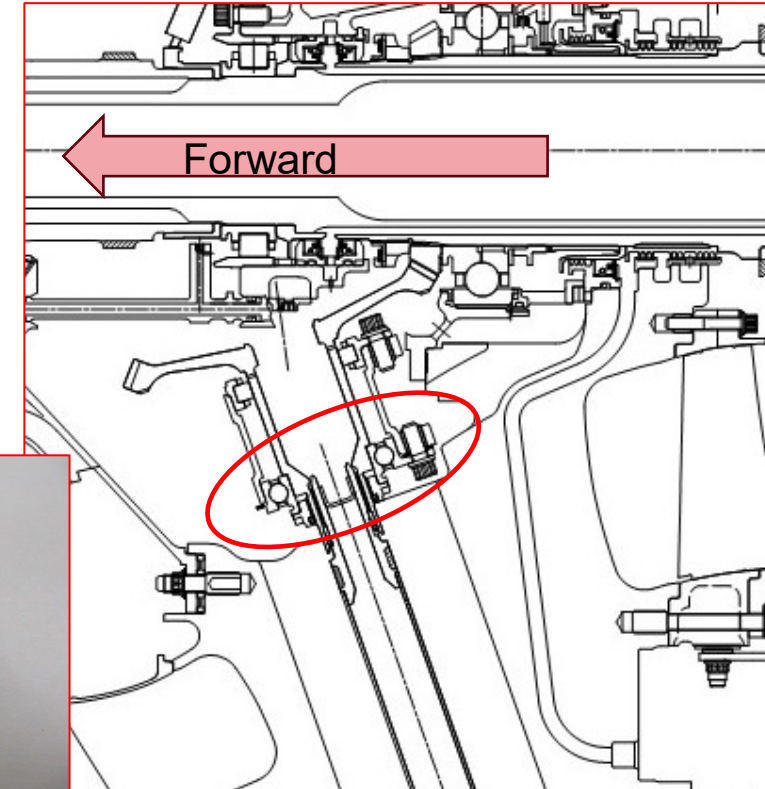
- Field reports of issues with upper tower shaft bearing 3033024-6
 - Chip CAS or oil filter analysis
 - No IFSD / operational issues

Background

- Introduced in 2011 via SB72-9045
 - Two-piece bronze separator
 - Secured by 10 hot-formed stainless steel rivets
 - When cool, applies ~ 4-500 lbs of compressive force
- No reported issues until ~2016

Next Steps

- Bearings in MA lab for analysis – est. Early June
- IRB to be held; request resources
- Removed bearings to be returned to supplier
 - Has something changed in mfg?



MSP AND FLY THE FLEET

DAVE LOPEZ

Honeywell

MSP AUTOMATION AND DIGITIZATION PROJECTS

2025

- 2024 Supervisors placed over;
 - Avionics, Entry/Contracts, Support, Collections
- Making portal robust: \$0 invoices, duplicate invoices, hours not recording, access questions
- New
 - Online **renewal** automation – live, working issues
 - Online **transfer** notification – live, working issues
 - Online **new** contract setup – May/June go live
 - Products this applies to;
 - HTF / TFE / APU
 - CFE/TPE manual
- AutoTSN reporting and auto billing
 1. Honeywell Ensemble– also performance trending
 - Applies to HTF / TFE NG, APUs at 60% TSN
 - January live - HTF contract renewals
 2. ADS-B TSN reporting – went live
 - Will be able to enter hours before pre-populating, or can cancel and populate

Honeywell AEROSPACE TECHNOLOGIES

PRODUCTS & SERVICES SUPPORT AND RESOURCES ABOUT US SUSTAINABILITY MYAEROSPACE

Contract 440129794

Contract Status ON PAR IN RENEWAL	Contract Number 440129794	Contract Type MSP Engines & APUs	Contract Start 01/25/2014	Contract End 10/25/2024	Account DCS AVIATION LLC	Address 5956 SHERRY LN STE 800 DALLAS Texas USA 75225
Phone 214-378-3600	Fax N/A	Email champs@honeywell.com				
Contract Notes 🔗	Covered Assets 🔗					

Contract Renewal Details

Customer Review Customer Accepted Honeywell Accepted

Waiting for Honeywell review and signature

Your maintenance service plan renewal needs to be reviewed and signed by Honeywell.

Chatbot

• No Logistical Support.

No MSP Gold coverage

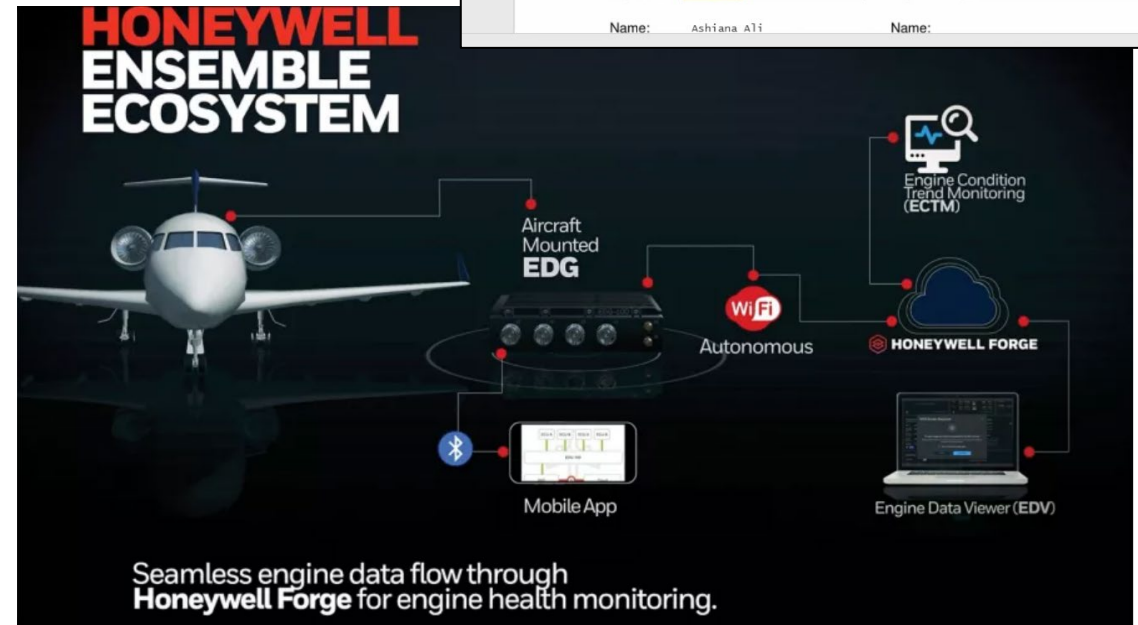
HONEYWELL INTERNATIONAL SARL
Aerospace

Signature: Sign

Name: Ashiana Ali

Signature:

Name:



MSP CASE MANAGEMENT TRACKING

Refreshed On:

April 8, 2025

MSP Scorecard

Report Date

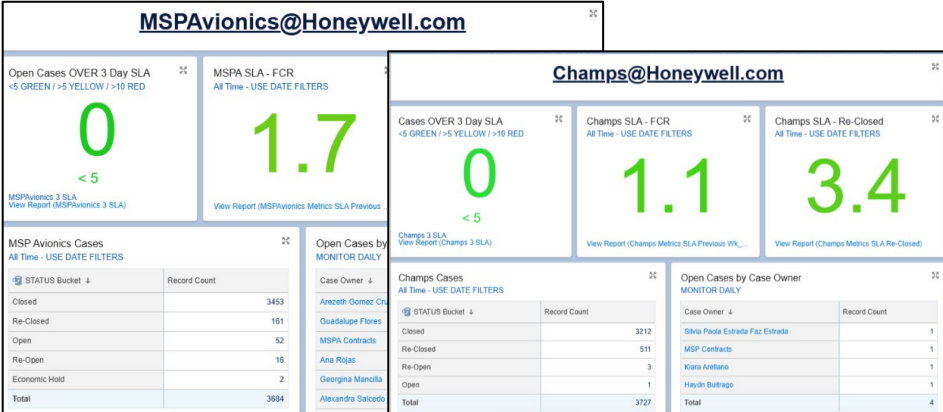
1/1/2025 to 12/31/2025

MSP Engines & APU

Category	KPI Names	Metric	UoM	Jan				Feb				Mar				Apr	
				wk-2	wk-3	wk-4	wk-5	wk-6	wk-7	wk-8	wk-9	wk-10	wk-11	wk-12	wk-13	wk-14	wk-15
MSPE Entry	MSPE Enrollment SLA	Green+3, Yellow+5, Red+5	Days		2.1	2.9	2.2	0.0	1.8	2.6	2.7	1.0	2.3	2.4	2.0	0.0	1.8
	MSPE Enrollment Backlog	Green+10, Yellow+20, Red+20	Days	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	MSPE Customer Master backlog	Green+5, Yellow+10, Red+10	Open Cases	4	3	0	0	0	0	0	1	1	0	1	0	0	0
	MSPE Renewals Backlog	Green+10, Yellow+20, Red+20	Open Cases	12	0	2	0	0	0	2	1	1	0	1	0	3	2
	MSPE Transfer Backlog	Green+10, Yellow+20, Red+20	Open Cas.	1	2	0	0	0	0	5	3	3	1	2	1	6	4
MSPE Customer Support	MSPE Champs Backlog	Watch Volume	Open Cases	117	99	44	41	105	177	80	25	59	29	37	15	72	39
	MSPE Champs Inquiries received	Watch Volume	Open Cases	63	506	507	392	349	614	598	485	434	506	589	507	774	425
	MSPE Champs Inquiries Closed	Watch Volume	Open Cases	64	486	427	512	396	538	688	618	470	506	497	537	785	475
	MSPE Champs Inquiries SLA	Green+3, Yellow+5, Red+5	Days	1.1	7.9	9.4	5.3	6.8	5.2	4.7	8.4	3.1	2.4	5.8	7.0	3.4	3.1
	MSPE Credit application requests	Watch Volume	Open Cases	3	24	3	5	1	2	11	3	6	10	4	0	0	3
	MSPE Operator Change Req SLA	Watch Volume	Open Cases	7.0	6.6	9.0	6.0	7.2	9.0	9.5	4.6	0.8	1.0	5.5	3.0	3.0	3.0
	MSPE Operator Change Req Completed	Watch Volume	Open Cases	1	7	6	10	5	2	6	7	6	3	6	3	4	1
MSPE Customer Support	MSPE Contracts Backlog	Watch Volume	Open Cases	29	55	17	24	21	98	45	26	26	25	43	31	42	26
	MSPE Inquiries received	Watch Volume	Open Cases	16	279	317	248	222	328	397	253	235	241	284	252	392	181
	MSPE Inquiries Closed	Watch Volume	Open Cases	13	232	344	265	232	285	416	301	234	223	272	258	408	192
	MSPE Inquiries SLA	Green+3, Yellow+5, Red+5	Days	2.0	2.2	2.5	1.9	1.5	1.5	2.4	3.5	2.5	1.4	1.4	1.5	2.1	3.8

Case Management (Email and Phone)

- Networked through Salesforce.com & InContact Phone
- Cust Sat Survey 85%, First Call Resolution 85%, Agent Sat 89%
 - ~1600 cases per month
- Similar set of metrics for Avionics, mainly dealer related
- Continuing to refine case routing and tracking
- Response time - 3 days is green
- 11/24 releasing SFDC Escalation path for aging
 - 4 days supervisor
 - 6 days Director
 - 8 days VP



MSP Contacts

Question or Issue	Email address	Phone Number
MSP Engine & APU Contracts for related items such as rates, renewals, transfer of ownership	MSPContracts@honeywell.com	1-602-365-6442 Option 3
MSP Engine & APU support related to adding a new contract / aircraft to your account, reporting, hours issues	Champs@honeywell.com	1-602-365-6442 Option 2
MSP Engine & APU payment issues	MSPPayments@Honeywell.com	
MSP Avionics and Mechanical Components questions or support	MSPAvionics@honeywell.com	1-602-365-6441 Option 2

Include Contract # in the email Subject Line, David.lopez2@honeywell.com

TFE

Past Event
Data Used

Bill of Material by Model / Event

- 20 of each engine. What are the parts going into a repair
- New, exchange, repair

Average RH													C21 250 Abracable		
MSF without USCH													C24 Monthly Avera		
Total	C2170	C2173	C2175	HS170	HS173	HS175	HS177	UNSC	UNSC	UNSC	UNSC	UNSC	Avent	Part-Labor Num	
6.00 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	184%	1%	0%	10%	P57A0001-05	
235.00 6.7%	18%	0%	0%	138%	97%	0.0%	5.3%	458%	50%	356%	230%	0%	304047-1		
50.00 1.5%	283%	290%	70%	172%	100%	0.0%	14%	78%	0%	152%	2%	0%	136230-1		
41.00 1.1%	0%	0%	15%	0%	2%	6%	0%	32%	32%	61%	83%	1340	200	0.01	
0.00 2.2%	2%	0%	6%	2.2%	2%	0%	0%	46%	18%	3%	0%	27%	7044056-1		
50.00 1.5%	0%	0%	27%	0%	0%	0%	0%	100%	100%	0%	0%	0%	6915483-2		
34.00 0.9%	96%	100%	96%	82%	86%	0.0%	100%	100%	0%	25%	70%	651	535	9602	
20.00 0.6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	182320-01-P	
28.00 0.8%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	18%	7044931-2		
8.00 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	303540-5	
3.00 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	1E19-01-P		
3.00 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	21%	7040941-1		
395.00 3444%	5555%	0%	451%	5723%	5780%	4741%	6.00%	851%	0%	94%	689%	3155%	303650-2		
3.00 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1E15-01-P	
34.00 0.9%	90%	100%	96%	93%	101%	94%	100%	24%	1%	26%	9%	0%	651	535	9603
54.00 0%	0%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	103%	1E12-01-P		
1.00 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	P57A0001-00	
7.00 0%	9.26%	0%	0%	0%	77%	0%	0%	0%	0%	954%	0%	18%	7040871-1		
233.00 6.3%	91%	100%	98%	77%	82%	97%	100%	274%	439%	107%	14%	0%	7044126-2		
47.00 1.3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1E15-01-P	
0.00 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13K125-01U	
23.00 0%	283%	0%	0%	0%	99%	32%	0%	0%	0%	17%	47%	53%	7044955-1		
1.00 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1E15-01-P	
0.00 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2187676-5202	
25.00 0%	18%	0%	0%	15%	26%	24%	50%	42%	5%	85%	38%	20%	303321-1		
1.00 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7044940-2	
8.00 0%	0%	0%	27%	0%	21%	8%	0%	71%	0%	0%	0%	0%	0%	3030047-3	
4.00 0%	2%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%	3030004-3	
230.00 6.5%	0%	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3030045-9	
1.00 0%	0%	0%	0%	0%	0%	3%	0%	5%	2%	3%	2%	2%	0%	3033023-2	
12.00 38%	0%	0%	0%	0%	0%	0%	0%	3%	0%	4%	0%	4%	0%	3035030-1	
2.00 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3030045-1	

Replacement Rates

- Combustor P/N 123 **New** replacement rate
- Combustor P/N 123 **Exchange** replacement rate
- Rework new details needed for exchange combustor

On
order

- On order aligned to events
- Increase / Decrease on order
- Supplier or Internal Honeywell

Honeywell Confidential - ©2025 by Honeywell International Inc. All rights reserved.