

The ATR logo is displayed in white, italicized, sans-serif font on a solid orange rectangular background.

Flight Safety Conference

29th – 30th November 2023

Customer Support for Safety

Domenico MELCHIORRE

HO Customer Support





*“Tutto il nostro sapere ha origine dalle
nostre percezioni”*

Leonardo DA VINCI

A background image of Leonardo da Vinci's Vitruvian Man sketch, showing the figure inscribed within a circle and a square, with various lines and annotations around it.

“All our knowledge has its origins in our perceptions”

Leonardo DA VINCI

*“All our knowledge **relies upon you**”*

Domenico MELCHIORRE

ATR

Certification



Quality



Sustainability



Customer Support



Continuous Airworthiness



Human resources



You, we, **US** are SAFETY

Research & development



Design



Performance



Manufacturing



Training



Suppliers & Subcontractors



Finance



Why occurrence reporting is key?



Boost our collective Knowledge

Complement & Enhance Maintenance & Operational procedures



Improve product & services

Improve aviation safety



ATR

Significant Event Notifications (SEN)



**Pure
Occurrence
Reporting
EASA AMC 20-8
criteria**



**Event detection
through
Customer request**

Reporting Trends

4537

(2019-2023)

Events were reported
from 186 Operators

48%

Originated from
Occurrence Report (OR)

ATR

Reporting Trends

9

Report
100% OR

Report
<50% OR

78

186

Operators

Do not
Report OR

46

53

Report
>50% OR

**1/3 Operators report in accordance with
AMC 20-8**

ATR

Continued Airworthiness



Screening by Continued
Airworthiness teams to identify
Technical Incidents (TI)

Airworthiness Directive (AD)
could be issued to drive a change

ATRactive

FOCUS Groups

AMM Improvements

Operator Information Messages (OIM)

Service Bulletins (SB)

Service Letters (SL)

Technical Learning Process

Retrofit Information Letters (RIL)

Continuously communicating enabled by **continuously reporting**

Tech Connections

Operator Conferences

Maintenance Working Groups

Airworthiness Operator Messages (AOM)

Technical Progress Status (TPS)

Flight Operations Information
Messages (FOIM)

ATR

Safety improvement examples

Static Inverter



Unapproved Leading-edge repair



Starter Generator Speed sensor



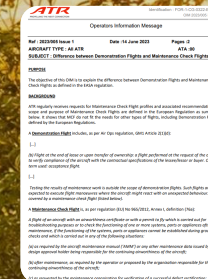
Operations Engineering Bulletins (OEB) reduction



Tie Bolt



OIM 2023/005



Unapproved Leading-edge repair



Background & Impact

- Unapproved repairs will cause unpredictable failures and/or changes in aircraft characteristics.

Recommendations

- **Referring to AMM, CMM and OEM recommendations** is an integral part of Flight Safety;
- **Maintenance Documentations** are continuously updated on ATRnavX. **Please ensure your technical teams have access to the latest version;**
- **AOM 42/2015/08 issue 1.**



Main Wheel - Tie Bolts



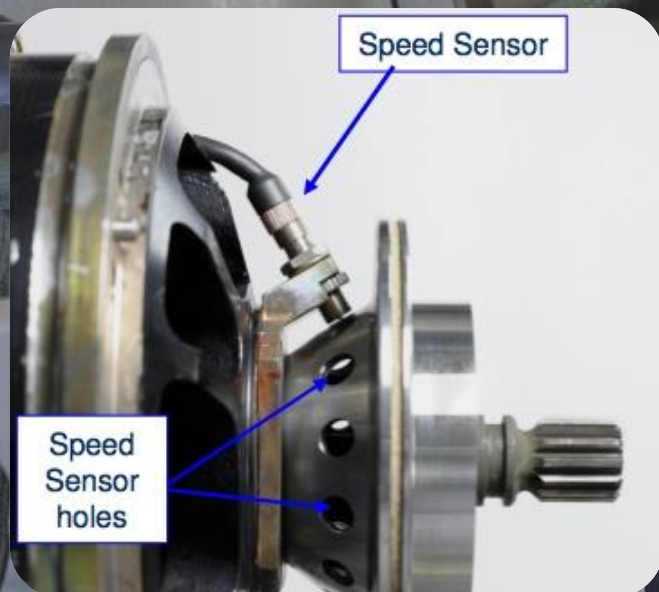
Background & Impact

- Fatigue rupture due to an improper tracking of the main wheel tie-bolt cycles & Rupture due to an improper maintenance practice.

Recommendations

- **Strictly follow all instructions** (general & particular) **provided by the Main wheel OEM** in the technical publication;
- **Report** all Tie Bolt events alongside with **the last wheel shop report and last main wheel tie-bolt NDT inspection report**;
- **OIM 2023-011 ISSUE 1.**

Starter generator -123 speed sensor



Background & Impact

- In service experience evidenced that the Speed Sensor failure can be the cause of unscheduled Starter Generator removal;
- DUs Loss events were reported.

Recommendations

- TAES **VSB 8260-12X-24-017** for Retrofit application;
- TAES **SIL 8260-12*-24-012** for Speed Sensor Installation and Torque Values;
- **TPS 24-32-001**.

Static inverter



Background & Impact

- Premature failure of Static Inverter P/N 1-002-0102-2173 (sometimes associated with smoke emission and/or burn smell in the cockpit) have been experienced.

Recommendations

- AVIONIC INSTRUMENTS VSB 1-002-0102-2573-24-44 for Retrofit application;
- RIL-2017-06 for Retrofit information;
- OIM 2017/002;
- AOM 42/72/2017/08;
- ATR SL ATR42-24-5034 & ATR 72-24-6026 for interchangeability information;
- TPS 24-21-001.

Operations Engineering Bulletins (OEB) reduction

OEB 7 - VHF emitting

OEB 28 - MFC1B and/or MFC2B fault

ATR	OPERATIONS ENGINEERING BULLETINS	OEB 7/1
75 FCOM	OEB 7	Page n°35
OEB 7 Issue 1 Associated with QRH OEB Proc N°: OEB 7/1 VHF Emitting (R)		
[DocCode=1100-4007-0004-00101009200]		3.1 06760
Approved by: Head of Flight Tests (EV)		
<ul style="list-style-type: none"> - This OEB covers a significant operational issue. Non-compliance with this OEB may have a significant impact on the operations of the aircraft. ATR recommends that operators apply this OEB without delay. - The procedural part of this OEB is provided for insertion into the QRH. - ATR recommends that all operators rapidly incorporate the corrective Service Bulletins/ actions that cancel this OEB when they become available. 		
Reason for Issue:	If for any reason one VHF has been emitting for more than thirty seconds, the emission is interrupted by the system, and a Caution is raised by the FWS (amber VHF).	
Applicable to:	All aircraft fitted with Mod 6760.	
Canceled by:	The Corrective Action for this OEB is Mod 7245	

ATR	OPERATIONS ENGINEERING BULLETINS	OEB 28/1
75 FCOM	OEB 28	Page n°77
OEB 28 Issue 1 Associated with QRH OEB Proc N°: OEB 28/1 MFC 1B and/or MFC 2B Fault		
[DocCode=1100-4007-0004-00101009200]		5.0 04571 or 04599
Approved by: Head of Flight Tests (EV)		
<ul style="list-style-type: none"> - This OEB covers a significant operational issue. Non-compliance with this OEB may have a significant impact on the operations of the aircraft. ATR recommends that operators apply this OEB without delay. - The procedural part of this OEB is provided for insertion into the QRH. - ATR recommends that all operators rapidly incorporate the corrective Service Bulletins/ actions that cancel this OEB when they become available. 		
Reason for Issue:	This OEB is issued to provide operators with operational recommendations about in-service events of single or dual MFC module B fault.	
Applicable to:	All aircraft fitted with Mod 4599 or 4571 or 4569	
Canceled by:	The Corrective Action for this OEB is Mod 7400.	

Canceled by: The Corrective Action for this OEB is Mod 7245 → **SB 72-23-1126**

Canceled by: The Corrective Action for this OEB is Mod 7400. → **SB 72-31-1097**

OIM 2023/005

Difference between Demonstration Flights and Maintenance Check Flights (MCF)



Identification : FOR-1-CG-0322-EN - A.Z
OIM 2023/005 issue 01

Operators Information Message

Ref : 2023/005 Issue 1 Date :14 June 2023 Pages :2
AIRCRAFT TYPE : All ATR ATA :00
SUBJECT : Difference between Demonstration Flights and Maintenance Check Flights

PURPOSE

The objective of this OIM is to explain the difference between Demonstration Flights and Maintenance Check Flights as defined in the EASA regulation.

BACKGROUND

ATR regularly receives requests for Maintenance Check Flight profiles and associated recommendations. The scope and purpose of Maintenance Check Flights are defined in the European Regulation as summarized below. It shows that MCF do not fit the needs for other types of flights, including Demonstration Flights as defined by the European Regulations.

A **Demonstration Flight** includes, as per Air Ops regulation, GM1 Article 2(1)(d):

[...]

(b) Flight at the end of lease or upon transfer of ownership: a flight performed at the request of the operator to verify compliance of the aircraft with the contractual specifications of the lessee/lessor or buyer. Other term used: acceptance flight.

[...]

Testing the results of maintenance work is outside the scope of demonstration flights. Such flights are not expected to execute flight manoeuvres where the aircraft might react with an unexpected behaviour. This is covered by a maintenance check flight (listed below).

A **Maintenance Check Flight** is, as per regulation (EU) No 965/2012, Annex I, definition (76a):

A flight of an aircraft with an airworthiness certificate or with a permit to fly which is carried out for troubleshooting purposes or to check the functioning of one or more systems, parts or appliances after maintenance, if the functioning of the systems, parts or appliances cannot be established during ground checks and which is carried out in any of the following situations:

(a) as required by the aircraft maintenance manual ('AMM') or any other maintenance data issued by a design approval holder being responsible for the continuing airworthiness of the aircraft;

(b) after maintenance, as required by the operator or proposed by the organization responsible for the continuing airworthiness of the aircraft;

(c) as requested by the maintenance organization for verification of a successful defect rectification;

Background

- MCFs **do not fit** the needs for other types of flights including Demonstration Flights (EU regulation No 965/2012).

Recommendations

- Flight profiles are ruled by EASA Part 21;
- Maneuvers and systems for **Demonstrations Flights must comply with ATR FCOM**;
- **In Service Aircraft Technical Flight Manual (ISATFM)** to help Operators & Lessors – **released in Q2 2023**;



What are the benefits?





To enhance
Safety margin **TOGETHER**

ATR