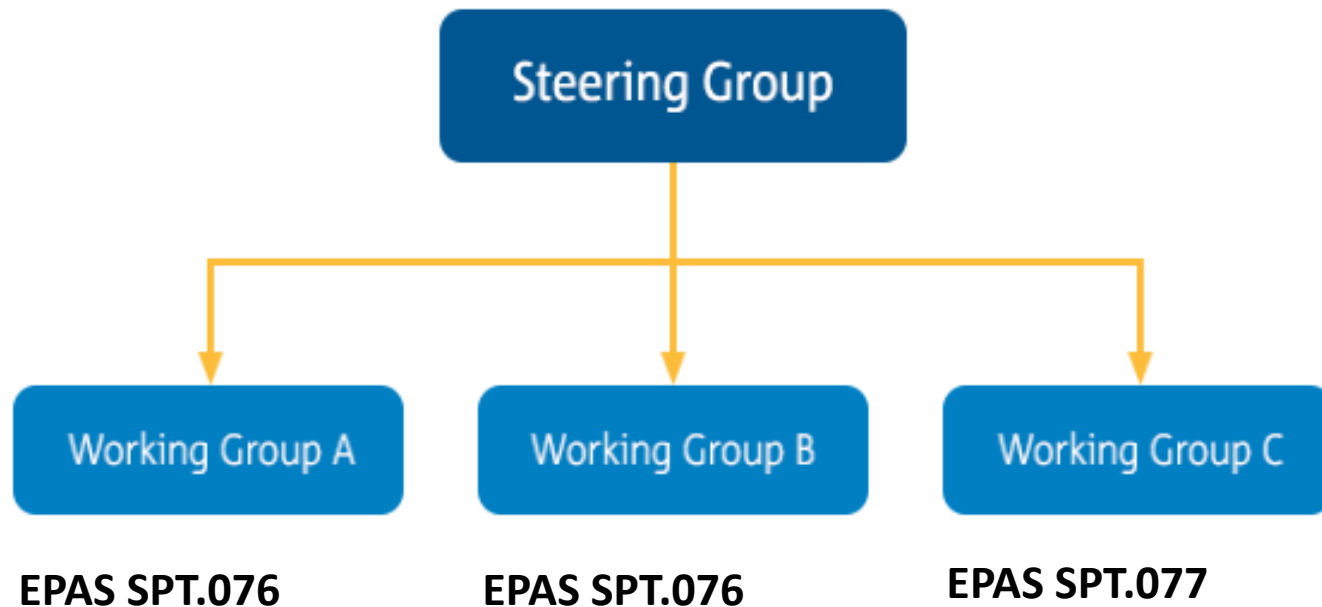


EOFDM Briefings

Organisation of EOFDM



EPAS - European Plan for Aviation Safety

EOFDM WG-A

Overview & Current Status

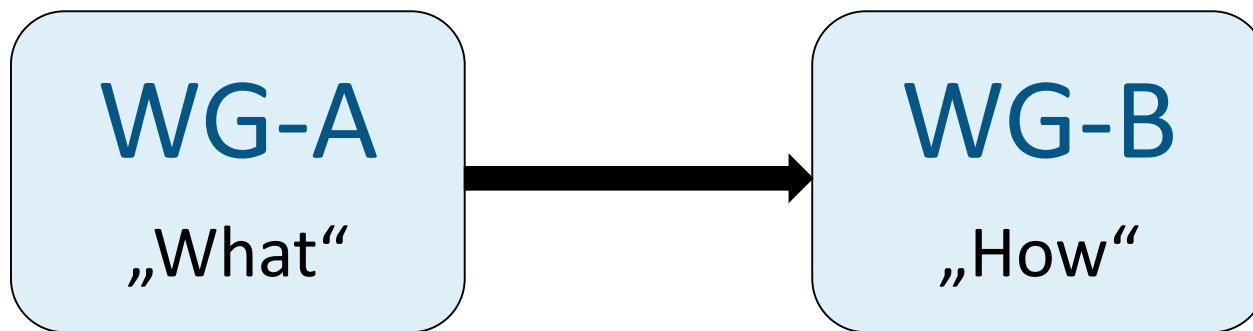
Lukas Höhndorf – Technical University of Munich
June 12th, 2017

Objectives WG-A

Define relevant

- common risks,
- safety defences, and
- related operational issues to be monitored by FDM programmes

in order to support operators SMS programmes.



Group Members

- Aeroplane operators
- Aeroplane operator associations
- Aeroplane manufacturers
- Research and Education institutions
- Pilot associations
- EASA
- National aviation authorities and international aviation regulators

Previous WG-A Work

- 2016 – 2017

Controlled Flight Into Terrain (CFIT)

- 2013 – 2015

Loss of Control in Flight (LOC-I)

- 2012

Runway Excursion (RE)

Please refer to the documents on the EOFDM homepage!

www.easa.europa.eu/easa-and-you/safety-management/safety-promotion/european-operators-flight-data-monitoring-eofdm-forum

Previous WG-A Work

Controlled Flight Into Terrain (CFIT)

- Review existing safety analysis material to identify precursors
- Review precursors to identify the ones adaptable to FDM
- Collect ideas for analyses based on Terrain Awareness and Warning System (TAWS) alerts
- Consider analyses going beyond TAWS alerts (e.g. wrong altimeter settings, deviation below glideslope, utilization of terrain databases)
- Formulate clear recommendations about what to monitor to the industry in general and to the WG B in particular

Ongoing WG-A Work

Mid Air Collisions (MAC)

- Kick Off Teleconference WG A & B performed
- Investigate Ongoing MAC analyses
- To be continued ...

Working Group B update

David Barry – Cranfield University

Pedro Duarte – NetJets

Summary

- Objectives of WG-B
- Membership
- Latest progress
- Acknowledgements to the working group
- Work in progress and next steps

Objectives of WG-B

- Define and test FDM measurements to monitor precursors identified by WG-A
- Develop techniques for FDM data analysis
- Discuss techniques to handle issues with recording systems
- Improve interoperability between FDM hardware and software
- Explore innovative technical solutions

Membership

- Currently with 42 members comprising:
 - Operators
 - Aircraft Manufacturers
 - FDM Software vendors
 - Research and educational institutions
 - Regulators (NAAs and International aviation regulators)
 - European Aviation Safety Agency (EASA)

We are open to new members

Progress so far

- Revision and update of Runway Excursion (RE) documentation
- Loss of Control In Flight (LOC-I) created
- Integration of LOC-I and RE in a single document

**European Operators Flight data Monitoring
Working Group B**

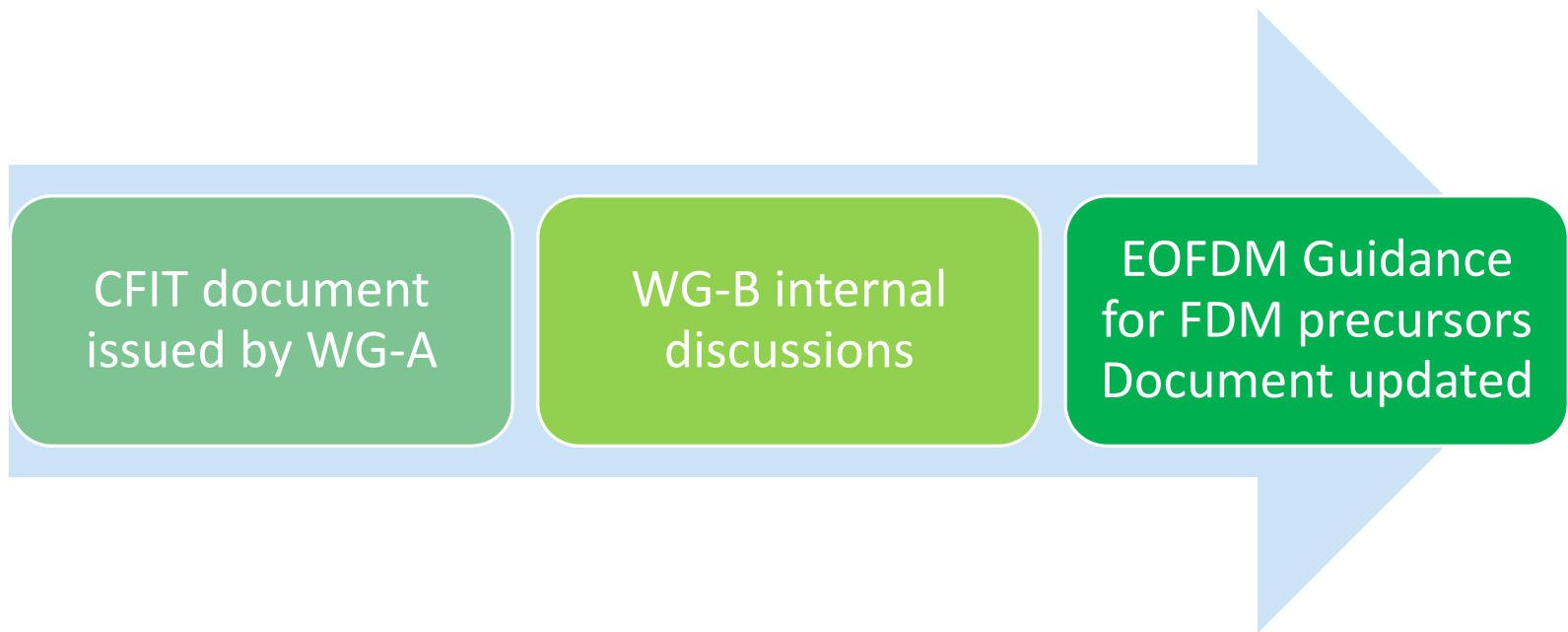
**Guidance for the Implementation of
FDM precursors**

Acknowledgements – LOC-I Contributors

Air Europe
ATR
British Airways
Brussels Airlines
Coventry University
EASA
Embraer

Emirates
Flight Data Services
NetJets
Taiwan CAA
TAP
Technische Universität München
UK CAA

Work in progress - CFIT



Next steps – Mid-Air Collision (MAC)



Kick-off meeting with
WG-A and WG-B

No immediate action
from WG-B

Working Group C update

Nuno Aghdassi – NetJets Europe

Guillaume Aigoïn – EASA

Objectives of WG-C

Scope = Integration of an FDM programme with the Operator's processes

- Integration of FDM into the Safety Management System (SMS)
- Help to manage:
 - Limited resources,
 - The application of “just culture” to the use of FDM data,
 - Dissemination of safety teachings of FDM,
 - Etc.
- Best practice related to data handling:
 - During day-to-day operation, and
 - On the long term (data storage, de-identification)

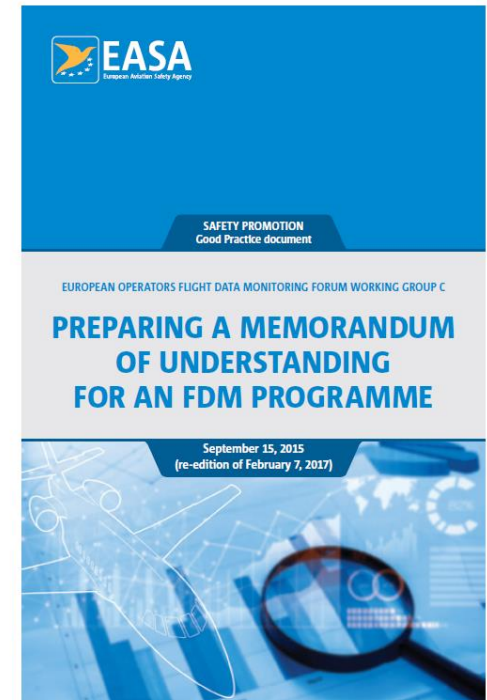
Safety action SPT.077 of the European Plan for Aviation Safety (EPAS)

WG-C is open to helicopter operators!

- **To address:**
 - Expectations of helicopter operators and Authorities (AAIB UK, CAA UK)
 - New requirement on helicopter offshore operators
- **Terms of reference of WG-C modified** in April 2017
- **Composition on 8 June 2017:**
 - 10 aeroplane operators and associations
 - 6 helicopter operators
 - 1 aeroplane manufacturer and 1 helicopter manufacturer
 - 1 research and education

Past production

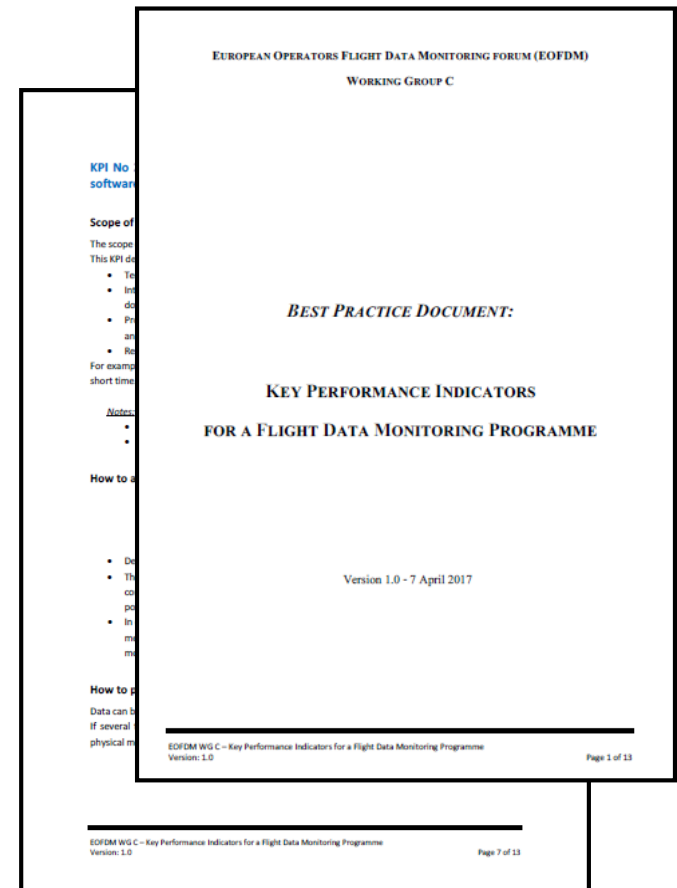
- Best Practice Document: ***Preparing a Memorandum of Understanding for an FDM programme***
- Topics:
 - Overview of the main issues
 - How to best prepare the MoU
- Published in 2015 and re-edited in 2017



*(a) The safety manager, as defined under AMC1 ORO.GEN.200(a)(1), should be responsible for the identification and assessment of issues and their transmission to the manager(s) responsible for the process(es) concerned. The

Achievements 2016-2017

- Best Practice Document: ***Key performance indicators for an FDM Programme***
- Topic: how to monitor the performance of the FDM programme?
 1. Flight collection rate
 2. Time between occurrence and detection by the FDM software
 3. Proportion of the risk register covered with FDM
 4. Rate of undesired event detections



What next?

- Short-listed topics:
 - « *Breaking the silos* »
 - combining FDM data with other sources
 - « *FDM analysis techniques* »
 - Creating meaningful outputs from FDM and analysing them
 - « *Targeting higher standards* »
 - staff, flight data, hardware, etc

One topic to be selected for the next 6 to 12 months.

Thank you for your attention!

More information on the EOFDM Forum webpage