



**EASA**  
European Aviation Safety Agency

# RSOO experience supporting State AAIAs

Aircraft Accident & Incident Investigation Authority (AIIA) Workshop

Bangkok, 18-21 Feb 2020

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**Your safety is our mission.**

An agency of the European Union 



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Update on  
**ECCAIRS 2.0 – E2**



# Background - EASA

Established  
**2002**

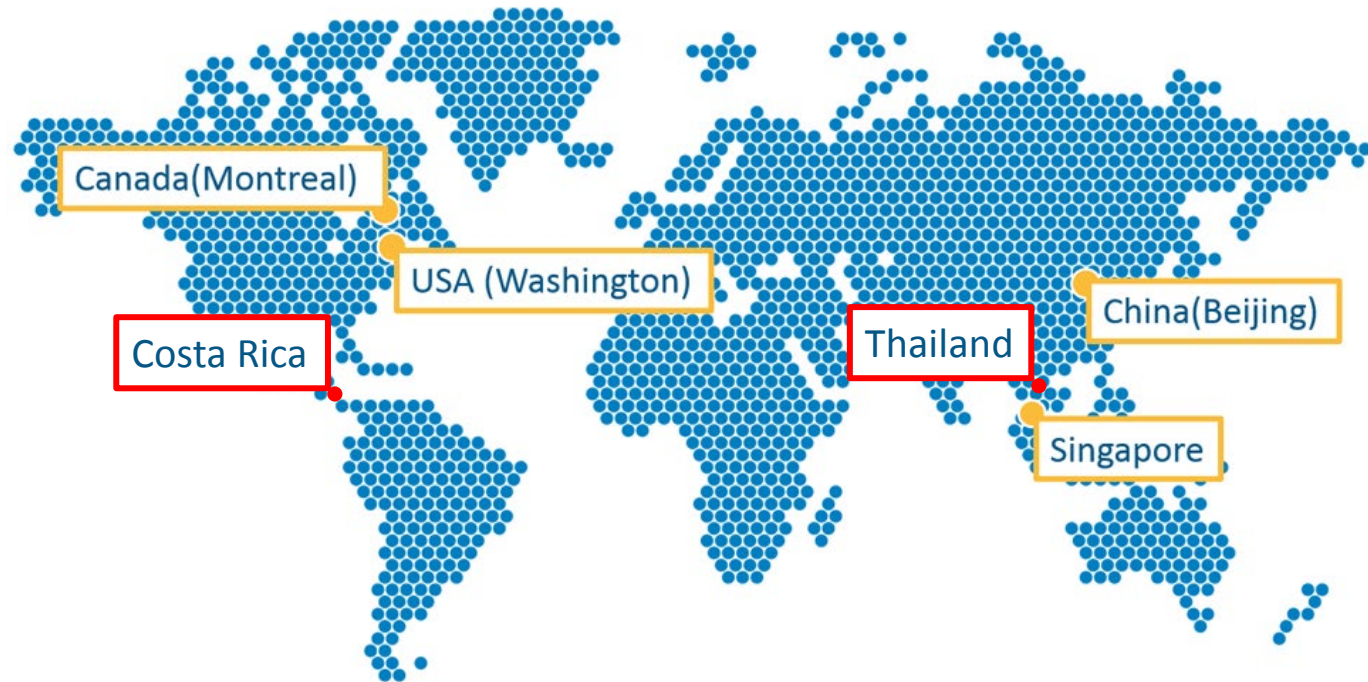
*15 years  
in operation*

**800+**

aviation experts  
& administrators

Headquarters in  
**Cologne**  
Office in  
**Brussels**

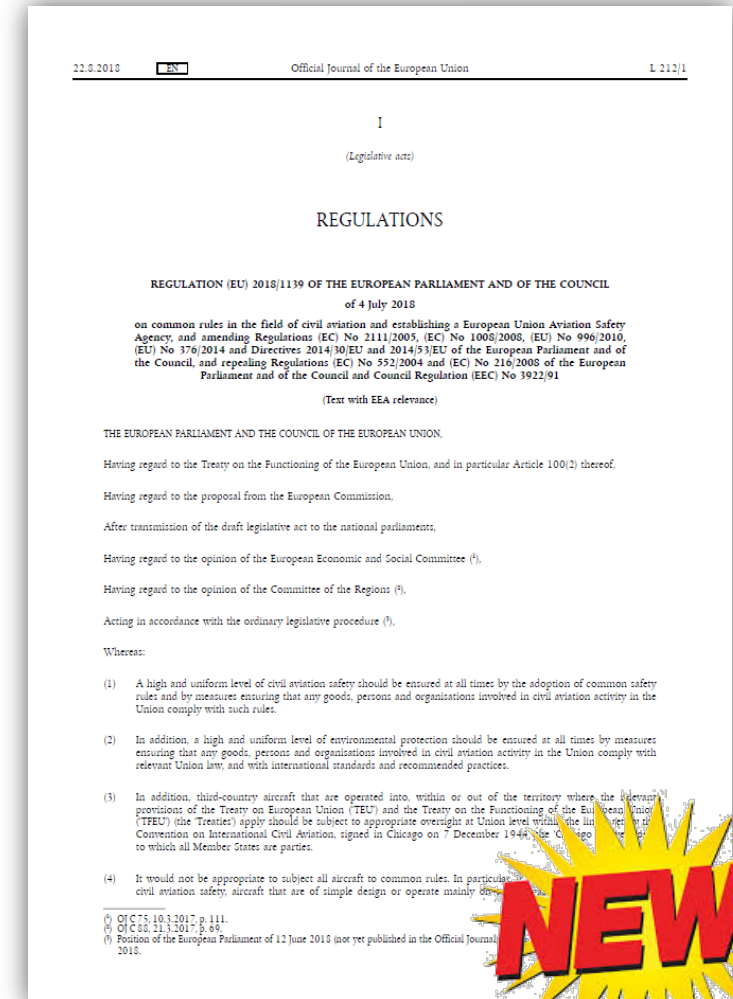
**32** EASA member states  
= 28 + 4  
EU + Switzerland, Norway  
Iceland, Liechtenstein





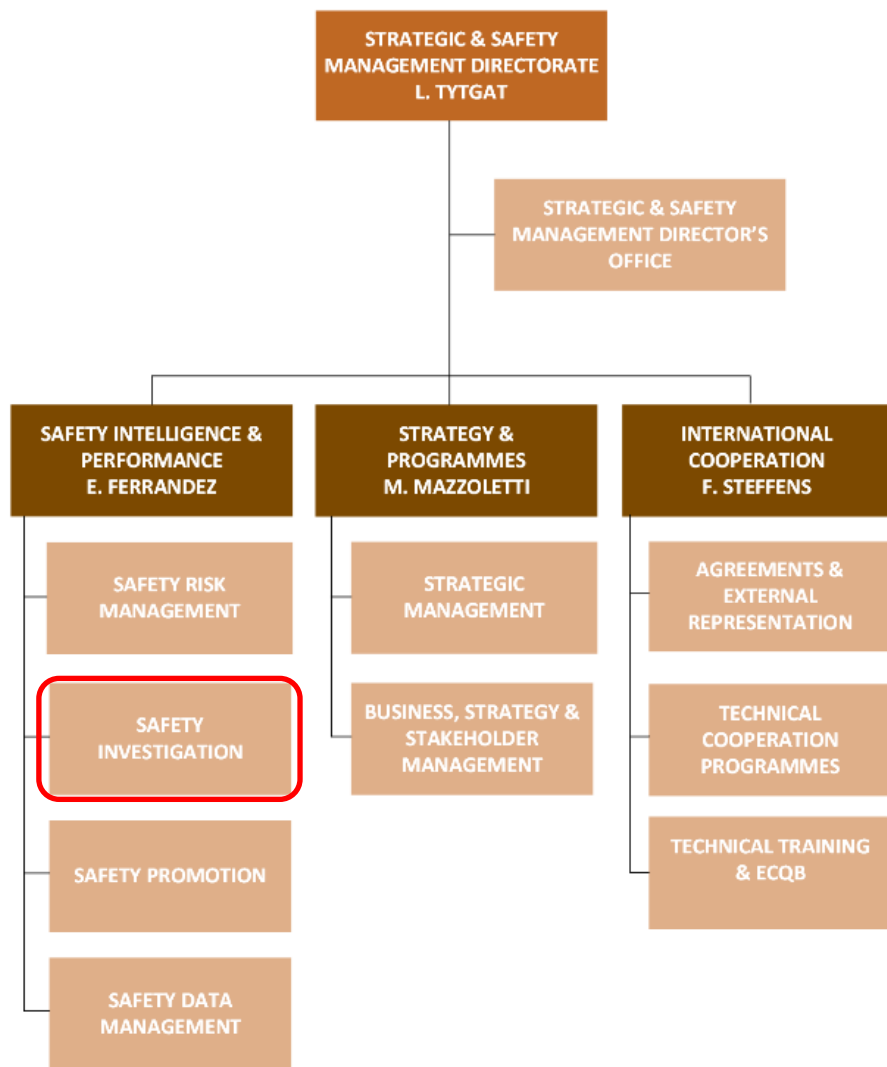
# Background - EASA “New” Basic Regulation

- ❑ Regulation (EU) No 2018/1139
- ❑ Entered into force on Sept 11 2018
- ❑ EASA retains exclusive competencies in relation to certain fields (e.g. Design, Third Countries Operators approval, etc...)
- ❑ Opens up the range of Organisations Types for which EASA can act as Competent Authority (opt-in)
  - ❑ EU MSs based Operators,
  - ❑ EU MSs based Production Organizations,
  - ❑ EU MSs based Maintenance Organizations,
  - ❑ EU MSs based Training Organizations,
  - ❑ (...)





# Background - EASA organisation structure

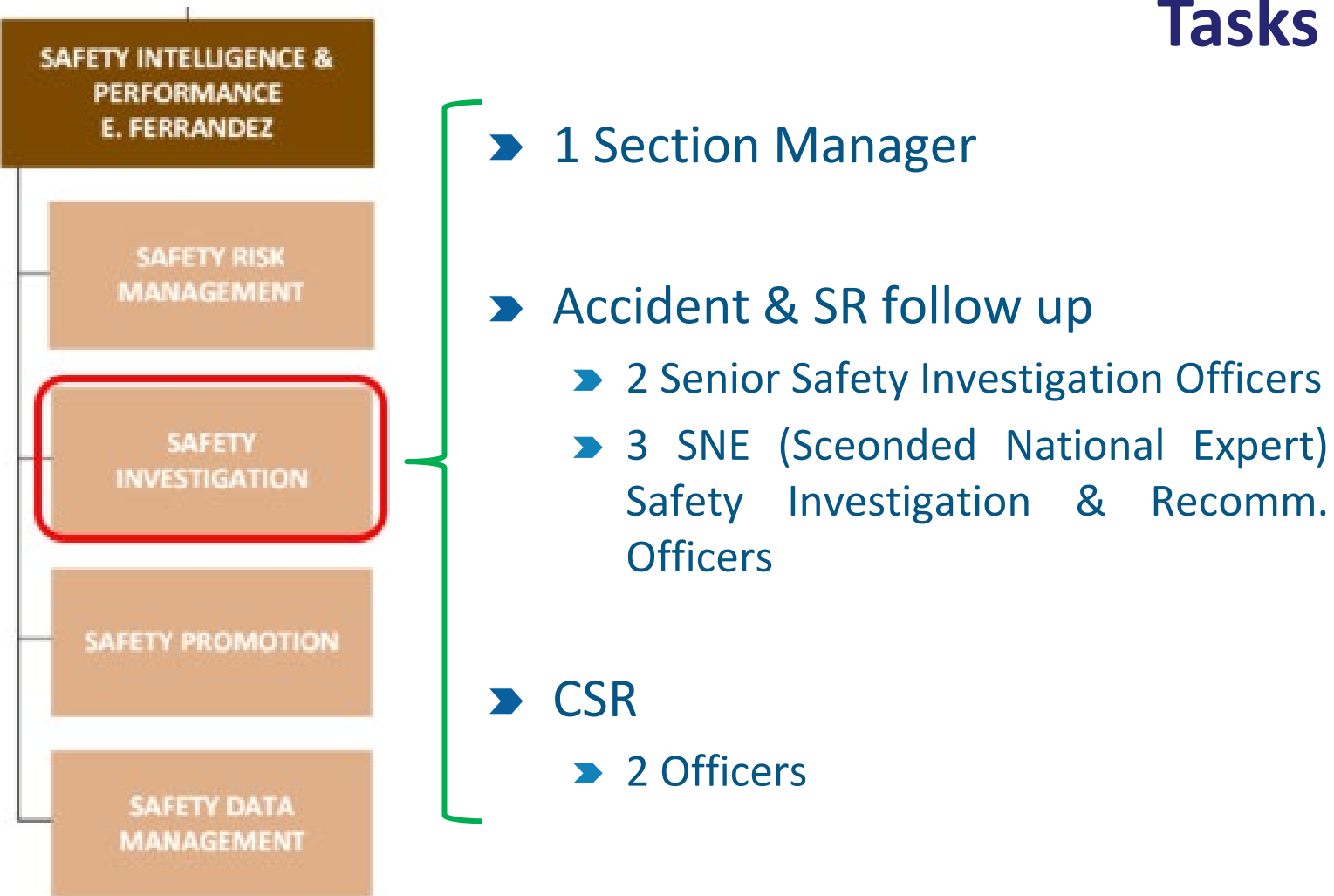


## EASA's tasks

- Draft implementing rules in all fields pertinent to the EASA mission
- Certify & approve products and organisations, in fields where EASA has exclusive competence (e.g. initial airworthiness/design)
- Provide oversight and support to Member States in fields where EASA has shared competence (e.g. Air Operations , Air Traffic Management)
- Promote the use of European and worldwide standards
- Cooperate with international actors in order to achieve the highest safety level for EU citizens globally (e.g. EU safety list, Third Country Operators authorisations)



# Background - EASA organisation structure



## Tasks

- ❑ To follow the progress of aircraft acc/incid investigations
- ❑ To represent EASA in investigations (also on site) and deliver technical expertise whenever needed
- ❑ To achieve the processing of SR addressed to EASA and monitor its follow-up
- ❑ To maintain a working coordination with EU (and non EU) Accident Investigation Bodies
- ❑ To be aware of safety deficiencies and disseminate related information for establishing corrective actions

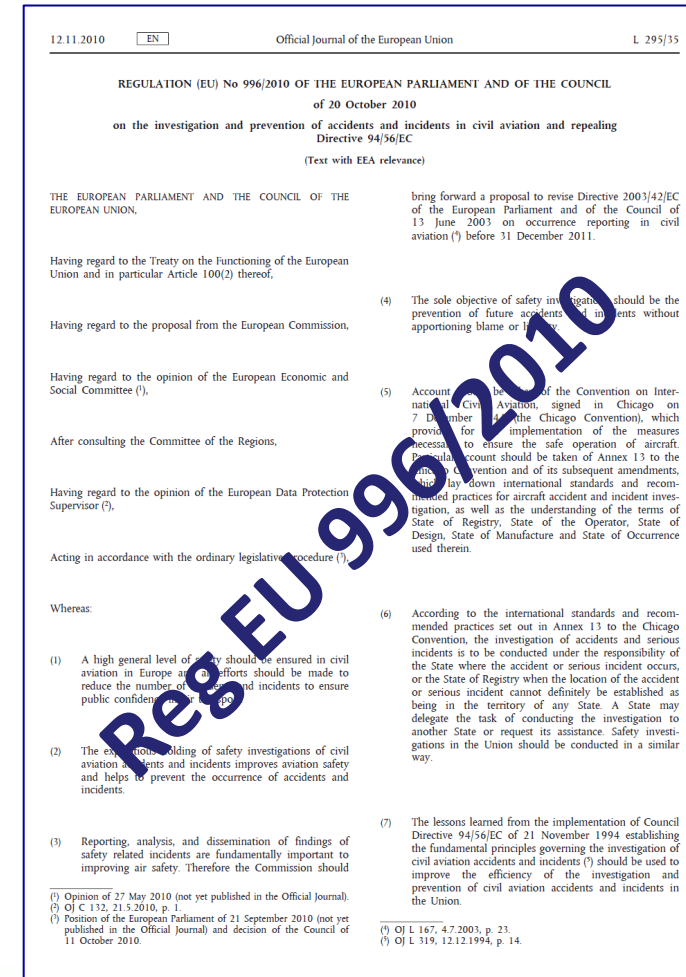


# Background – Reg EU 996/2010

- Standard & Recommended practices governing investigation of Acc. and Ser. Incident
  - One SIA per EU Member State to investigate (& notify EASA)
  - EASA to contribute without affecting the investigation's independent status

## Art. 8.2

- EASA representative is entitled to:
  - Assist the IIC
  - Assist EU AccRep for investigation led by Third C.
  - Receive docs to obtain relevant information
  - Participate in various off-scene investigation activity
  - Visit the accident site/examine the wreckage





# Extra EU Investigation with EASA direct involvement

## Extra EU Investigation with EASA direct involvement

- ❑ **Boeing 737-8 MAX, occurred on 10 March 2019 in Ethiopia**
  - ❑ Invitation to appoint an expert into the investigation received by Ethiopian SIA
  - ❑ A Senior Safety Investigation Officer travelled to Ethiopia to support the investigation
  
- ❑ **Agusta A109 Grand, occurred on 24 Dec 2018 in Mexico**
  - ❑ Request for a direct involvement and presence on site of the EASA Technical Advisor, received by Mexican SIA
  - ❑ The Safety Investigation Section Manager travelled to Mexico to support the investigation



# Progress investigation meetings

- ❑ Coordinated by SIA leading the investigation process
  - ❑ Conference Calls/Webex
  - ❑ Face by face meetings hosted by SIAs in their facilities
  - ❑ Face by face meetings hosted by one of the involved organizations
  
- ❑ Main scope
  - ❑ To share information/evidence/findings
  - ❑ To share way forwards in the investigation process
  - ❑ To ask for support to specific areas
  - ❑ To ask for sub-groups update on the ongoing analysis
  - ❑ To identify possible safety issues or discuss them
  - ❑ Any need for which an update on the investigation process could be beneficial



# Progress investigation meetings

## □ Participants

- All the involved Organizations or Specific stakeholders (AccReps, TAs, Experts):
  - SIAs
  - EASA/FAA
  - NAAs
  - Design/Manufacture Organizations
  - Operators
  - Others as per request/need of SIAs leading the investigation



## □ Main outcomes (EASA experience)

- Information (confidential) to feed the CAW process
- Possibility to share safety actions already in the pipe
  - ADs/EADs/SIB
  - Safety Promotion
- Possibility to involve EASA experts specifically for that event
- Other



# Progress investigation meetings

- ❑ Progress meeting on CRJ200, SE-DUX, 20/01/2016:
  - ❑ All stakeholders invited (Accredited Representatives and Technical Advisors)
    - ❑ Aviation Authorities: **EASA, FAA, TCCA, CAA Norway, CAA Sweden**
    - ❑ SIAs: **AIBN, BEA, TSB, NTSB, CIAIAC**
    - ❑ Industry: **Bombardier, Honeywell, Rockwell Collins, Northrop Grumman**
- ❑ Main final findings were openly shared before issuance of the draft report
- ❑ Proposal of Safety Recommendations: content and addressee
  - ❑ Open discussion on them (FAA/EASA/TCCA around the same table)
- ❑ All the discussions were coordinated by the Swedish IIC/team in a very collaborative and open-minded way



## EU Reg 996/2010, art 16.4

*Before publication of the final report, the safety investigation authority shall solicit comments from the authorities concerned, including EASA, ... [omissis]...*

*In soliciting such comments, the safety investigation authority shall follow the international standards and recommended practices.*



# Draft final report consultation

## Amount of investigation information processed at EASA

	Yr 2017	Yr 2018
Notifications	825	946
Interim Reports	33	38
Draft Reports	170	172
Final Reports	579	542

**2019**

**2018**

**2017**

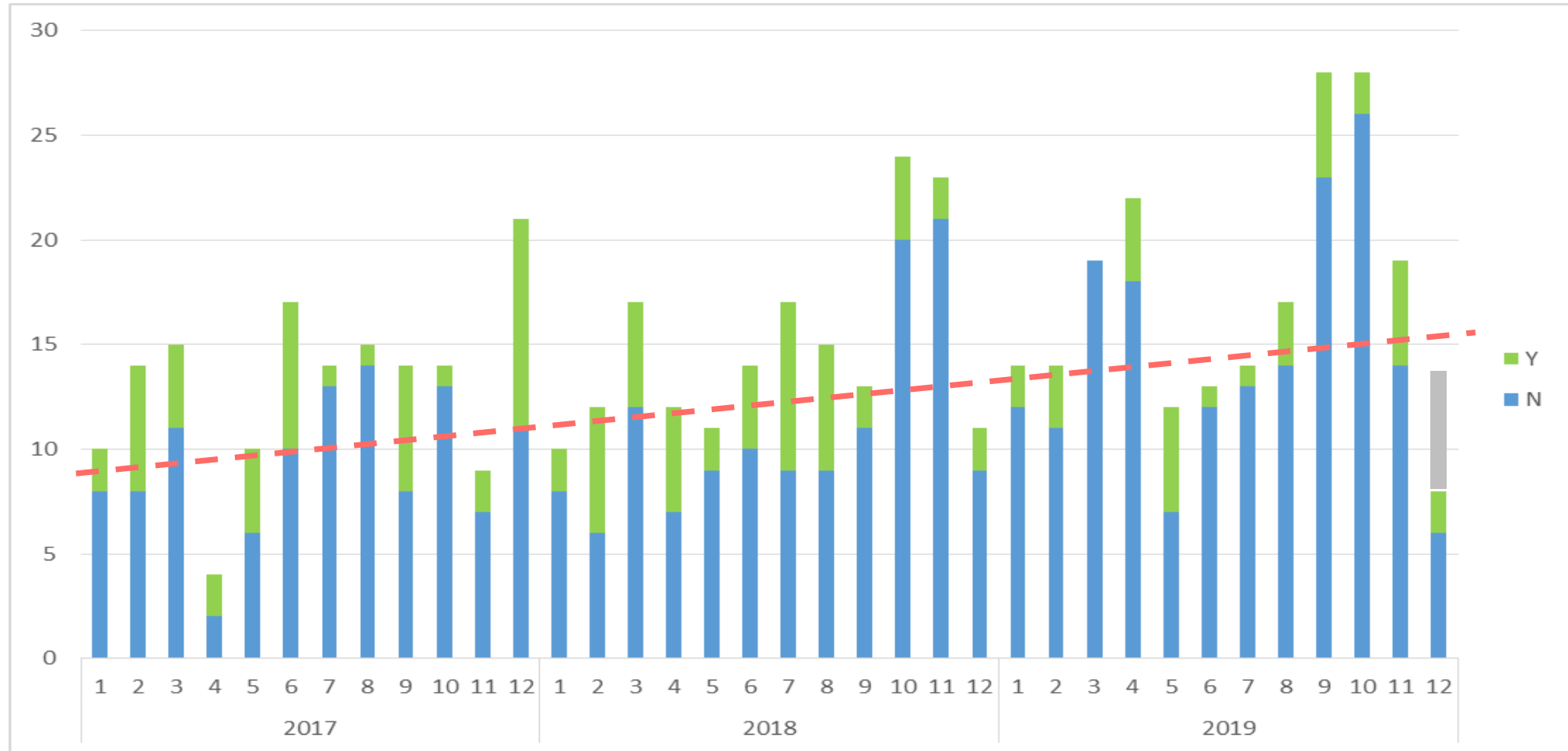
## Requests of assistance/support received from SIAs in the course of an investigation

	Year 2017	Year 2018
No. of requests	82	88



# Draft final report consultation

## Draft Reports received by EASA per comments (2017-2019)





# Request of support addressed to EASA

Request of support is a side process which usually starts before (or during) the final report drafting

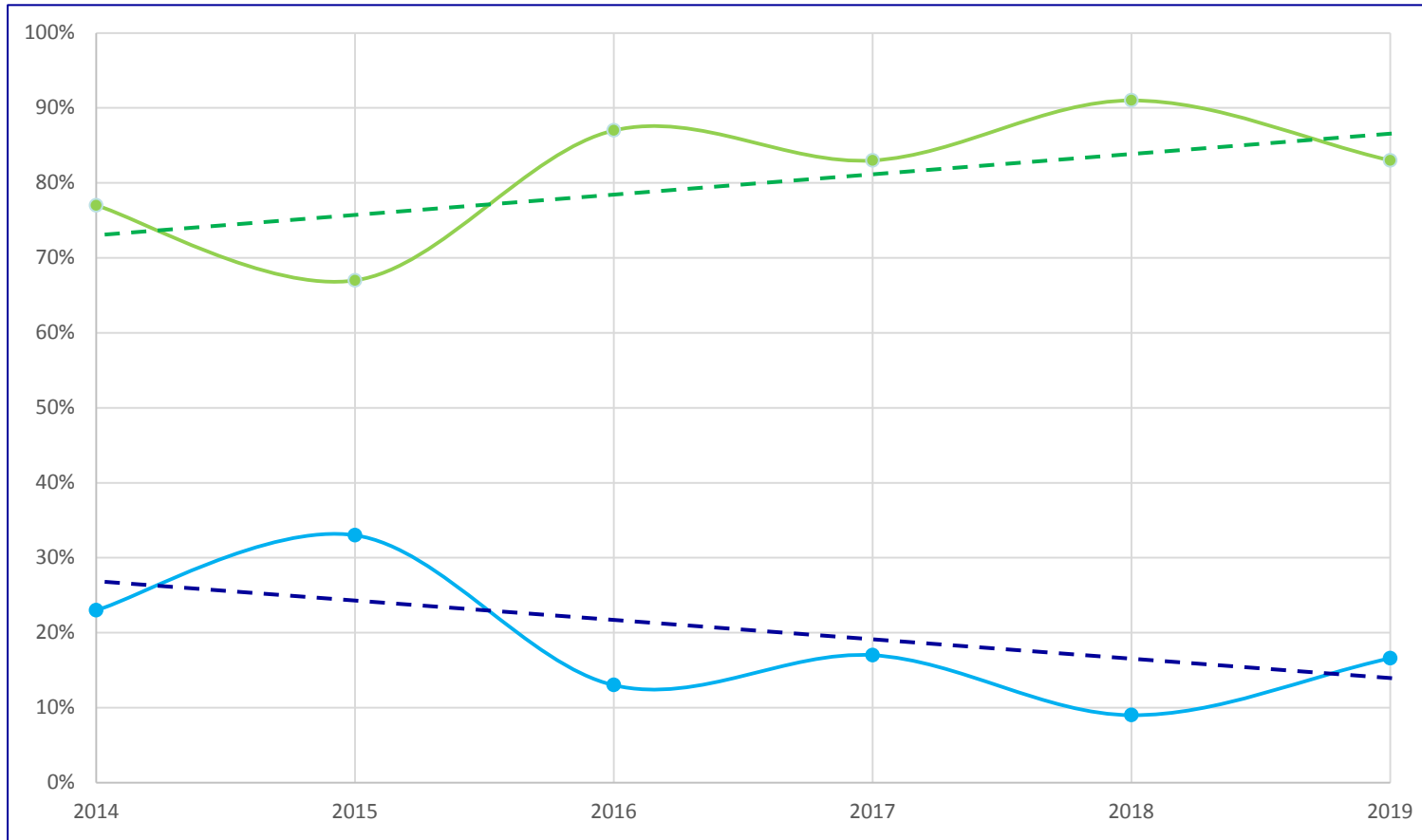
## Example

- ❑ **Investigation on S92, EI-ICR, 17.03.2017, led by AAIU**
  - ❑ **Close contact and very good “two-ways” communication**
  - ❑ **Experts from EASA other than the Senior Safety Investigation Officer involved (Legal/Ops/Certification)**
  - ❑ **Coordination from EASA side by TA (SM1.2 - Safety investigation Section)**
  - ❑ **Conference calls and a face to face meeting**



# Investigations promoting Safety Actions

## EASA assessment of the Safety Recommendation Replies



2014-2019

□ Agreement  
+  
Partial Agreement

□ Disagreement



# Investigations promoting Safety Actions

EASA SIB No.: 2015-03R1



## Safety Information Bulletin Airworthiness

SIB No.: 2015-03R1

Issued: 19 January 2016

**Subject:** ATR 42-400, 42-500 and 72-212A aeroplanes - Propeller / Engine Vibrations In Flight

Issued in response to SI investigated by Sweden and France on ATR aircraft during descent when operating close to maximum operating speed (VMO) with power in Flight Idle.

Aimed to:

- improve crew awareness about this type of event
- allow a better and prompt identification of the issue
- promote the application of conservative measures.

## SIB – Safety Information Bulletin

EASA AD No.: 2017-0232-E



## Emergency Airworthiness Directive

AD No.: 2017-0232-E

Issued: 21 November 2017

Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

**Design Approval Holder's Name:**

AIRBUS HELICOPTERS

**Type/Model designation(s):**

AS 332 helicopters

**Effective Date:** 22 November 2017

**TCDS Number(s):** EASA.R.002

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 64 – Tail Rotor Hub Assembly – Inspection

Interim action in the meanwhile of final determination of the causes requiring:

- a one-time inspection of flapping hinges of the tail rotor blades;
- corrective action(s), depending on findings;
- reporting of the detected findings and sending any cracked components to the manufacturer to support the investigation.

## EAD – Emergency Airworthiness Directive

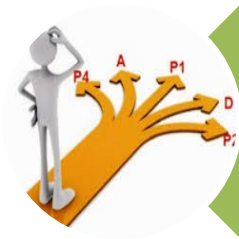


# EASA Safety Risk Management process

- The objectives of safety risk management are:



Connect safety intelligence with actions



Identify safety priorities



Work with experts from Industry and States more effectively



# EASA Safety Risk Management process



Category	Safety Issue	Status	Number of occurrences		Number of occurrences by month														
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026						
COMMERCIAL AIR TRANSPORT - AIRCRAFTS	Controlled Flight Into Terrain (CFIT)	Open	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Loss of Control on Ground (LOC-G)	Open	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Loss of Control in Flight (LOC-F)	Open	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Controlled Flight Into Terrain (CFIT)	Open	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Loss of Control on Ground (LOC-G)	Open	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Loss of Control in Flight (LOC-F)	Open	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Controlled Flight Into Terrain (CFIT)	Open	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Loss of Control on Ground (LOC-G)	Open	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Loss of Control in Flight (LOC-F)	Open	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Controlled Flight Into Terrain (CFIT)	Open	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0





## ➤ Delivery plan

- By **Q4 2020** within EU
- By **2021** outside EU

## ➤ ICAO/EASA Working Arrangement (WA) under discussion

- Week 17-21 Feb 2020, meeting at ICAO HQ for WA finalization

## ➤ Training

- It is part of the WA under discussion between ICAO and EASA
- Current idea is to split the training into two parts:
  - Annex 13 investigation
  - Occurrence reporting system



## ➤ Training within EU

- Organized at EASA level and “possibly” funded by EU Commission

## ➤ Training outside EU

- It is one of the main topic currently under discussion with ICAO HQ
- ICAO APAC Regional Office will certainly play a role within this Region on the training side
- Different options under discussions
  - Workshop based in APAC Countries
  - Training sessions for “trainers” dedicated to ICAO staff
  - .....



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