



**European Network
of
Civil Aviation
Safety Investigation Authorities**

ANNUAL REPORT

2018

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FOREWORD

BY THE CHAIRMAN OF THE EUROPEAN NETWORK OF CIVIL AVIATION SAFETY INVESTIGATION AUTHORITIES

This report summarises the eighth year of ENCASIA's activities. The ENCASIA Work Programme for 2018 is at Appendix 1.

The European Agency Safety Agency (EASA) Preliminary Safety Review¹ 2018 shows that in comparison with 2017, which was the safest year ever for commercial aviation, worldwide there had been an increase in commercial air transport accidents and fatal injuries during 2018 (Appendix 2).

While 2018 was still considered to have been one of the safest years for commercial aviation, the statistics demonstrate the importance of States having the ability to conduct an effective independent safety investigation to identify the causes in a timely manner and make safety recommendations to help prevent a recurrence. The work of ENCASIA in sharing best practice, providing mutual support and improving effectiveness through the work of the Peer Reviews has helped us all in meeting this challenge.

2018 was an extremely busy year for ENCASIA with a number of projects reaching key stages. Phase 1 of the Peer Reviews is complete, which was a significant achievement in reviewing 30 Safety Investigation Authorities (SIA) in such a short period, with 8 having been reviewed during 2018. We are now assessing the data collected during the reviews to identify important lessons and to focus the future work of ENCASIA and Phase 2 of the peer review programme. In the context of the ENCASIA Mutual Support System (EMSS), we held desktop exercises in Iceland, Lithuania and Slovenia which the respective SIAs used to develop their own national investigation management plans with the assistance of other SIAs. We have continued with our work to improve the standard of safety recommendations and to advise the Commission and EASA on the development of the new database for safety recommendations and their responses, and in making these visible to the public. Training and the collection and dissemination of best practice have also been at the centre of our activities, and are essential to support and complement the peer review and EMSS programmes.

¹ The EASA Preliminary Safety Review 2018 can be downloaded from <https://www.easa.europa.eu/document-library/general-publications>.

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I have been particularly pleased with the increasing presence of ENCASIA in the wider safety investigation community. ENCASIA or its members are now represented in all the key organisations and forums and have a significant presence in the International Civil Aviation Organisation (ICAO) Accident Investigation Group Panel (AIGP), which develops procedures, standards and recommended practice for the ICAO Air Navigation Commission. The listing of ENCASIA on the ICAO website with the Regional Accident Investigation Organisations demonstrates that the European Union, through ENCASIA, has developed an alternative approach for providing mutual support between States.

The success of ENCASIA is only possible with the support of the SIAs and their staff through their participation in the working groups and in providing secretariat support to our activities. I, therefore, take this opportunity to thank them for their work and encourage them to remain committed to supporting the objectives of ENCASIA.

I should also like to take the opportunity to thank the Commission for their continuing support, not only by providing financial and logistical support for ENCASIA activities but also through the participation and open discussions in ENCASIA meetings. The Commission's support has been instrumental in ENCASIA's success.

Rémi Jouty

Chairman of ENCASIA

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INTRODUCTION

Regulation (EU) No 996/2010 established the European Network of Civil Aviation Safety Investigation Authorities (ENCASIA) and has put strong emphasis on the coordination between Safety Investigation Authorities (SIA) and its reinforcement in the European context, in order to generate real added value in aviation safety. This is to be achieved by building upon the already existing cooperation between such authorities and the investigation resources available in the Member States. SIAs should be able, in each Member State, to conduct efficient and independent investigations and contribute to the prevention of accidents through their activities.

ENCASIA is composed of the Heads of the SIAs in each of the Member States and / or, in the case of a multi-modal authority, the Head of its Aviation Branch, or their representatives, including a Chairman chosen among these for a period of three years.

This 2018 Report is the eighth ENCASIA Annual Report related to the implementation of its work programme. The Report will be provided to the European Parliament and European Council, and will be made publicly available on the ENCASIA webpages, which is hosted on the Commission's website at:

https://ec.europa.eu/transport/modes/air/encasia/activities_en

ENCASIA's organisation

1.1) Significant changes

Other than a minor reorganization of the Working Groups (WG), which is discussed at paragraph 4, there were no other significant changes to the ENCASIA organization during 2018.

1.2) Regional Accident Investigation Organisations

A number of International Civil Aviation Organisation (ICAO) States have grouped together to form Regional Accident and Incident Investigation Organisations² (RAIOs). RAIOs facilitate the sharing of resources to enable states with limited resources to undertake effective investigations, thus fulfilling their obligations under Article 26 of the Chicago Convention.

ICAO has recognised the mutual support between ENCASIA members by listing ENCASIA on their website with other Regional Organisations at:

<https://www.icao.int/safety/Implementation/Pages/COSCAPs-RSOOs-RAIOs.aspx>.

The ICAO survey of RAIOs is listed in Table 1. While these regional organisations share the same objective of mutual support, they have all adopted a different approach with, perhaps, the Interstate Aviation Committee being the only one that meets the ICAO description of an RAIO published in DOC 9946 in 2011.

	Title	Region
ARCM	AIG Regional Cooperation Mechanism	South America
BAGAIA	Banjul Accord Group Accident Investigation Agency	Africa
ENCASIA	European Network of Civil Aviation Safety Investigation Authorities	European Union Member and Observer States
GRIAA	Regional Group for Air Accidents Investigation	Central America
IAC	Interstate Aviation Committee	East Europe

Table 1. ENCASIA and ICAO RAIOs

² ICAO provides guidance on the establishment and management of a RAIO at ICAO DOC 9946

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1.3) Commission's grants

Table 2 summarises the status of the Commission grants, which are related to the ENCASIA work programme.

Year	Name	Grant actions	EC grant	Co-financing rate	Status
2012	ENCASIA 1	Two training sessions carried out in the UK and FR during 2013.	€98,630	95% (EC) 5% (UK and FR)	Closed 2014
2013	ENCASIA 2	Training for Peer Reviews (UK) and mutual assistance (DE) in 2014. Peer review of four SIAs in 2014.	€99,932	100% (EC)	Closed 2015
2014	ENCASIA 3	Training for Peer Reviews (PT) in 2015. Peer review of six SIAs in 2015.	€79,947	95% (EC) 5% (ENCASIA)	Closed 2016
2015	ENCASIA 4 & 5		€159,942	95% (EC) 5% (ENCASIA)	Closed 2018
2016		Training for Peer Reviews (AT) in 2016. Peer review of six SIAs in 2016.			50% of grant received and actions completed for 2016.
2017		Training on mutual support and preparation for Peer Reviews (CZ) in 2017. Peer review of six SIAs in 2017.			30% of the grant received as a 2 nd instalment and all actions completed for 2017. Additional payment of the grant (10%) requested to pay for the actions in 2017.
2018	ENCASIA 6&7	Mutual Support training in 2018 Peer review of eight SIAs in 2018	€168,428	95% (EC) 5% (ENCASIA)	Contract signed 29 Dec 2017.

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Year	Name	Grant actions	EC grant	Co-financing rate	Status
		EMSS desktop exercises in 2018			First instalment of €80,000 received in January 2018.
2019		EMSS desktop exercises in 2019 Peer Review and EMSS workshop in 2019			

Table 2. Status of the grants from the Commission

1.4) Outreach activities

ENCASIA members have continued to play an active role in a variety of forums where they have not only represented the views of ENCASIA but have also advised the wider aviation community on the progress of the ENCASIA work programme. Forums include: the ICAO Accident Investigation Group (AIG) Panel³, which is chaired by a representative from BEA (France) and has members from BEA (France), BFU (Germany), AAIU (Ireland), DSB (the Netherlands), and the AAIB (UK)⁴; the ICAO European Civil Aviation Conference group of experts on accident investigations⁵ (ECAC ACC, chaired by a representative from the AAIB (UK)); the International Society of Safety Investigators, where the European Councillor is from the AAIB (UK); the European Society of Air Safety Investigators, where ENCASIA is represented by members from BEA (France), RTSA (Iceland) and the AAIB (UK). Members of ENCASIA WG 6 have also played an active role in the EASA Network of Analysts, and the ECCAIRS Steering Board and Steering Committee.

During 2018 a representative from the SIA (Finland), who had undergone ENCASIA peer review training, used the ENCASIA peer review questionnaire to carry out a peer review in Nigeria.

In 31 May 2018, an ENCASIA representative briefed the European railways investigation authorities during their 37th National Investigation Bodies (NIB) meeting in Valenciennes (France) on the history of ENCASIA and on setting up a legal entity.

³ The AIGP is a technical group of experts formed by the Air Navigation Commission (ANC) to advance solutions to problems and develop standards. It consists of representatives from 19 Member States and ECAC, IATA, ICAO, IFALPA and ISASI.

⁴ CIAIAC (Spain) and AIAS (Romania) also participate as observers

⁵ ECAC is an intergovernmental organisation that seeks to harmonise civil aviation policies and practices amongst its 44 Member States.

ENCASIA has since shared a number of their documents with the NIB to assist them with this process.

2) Candidates for observer status

Regulation (EU) No 996/2010 provides under Recital (19) that the objectives of this Regulation may be better achieved through cooperation with third countries, which could be allowed to participate as observers in the work of the Network (ENCASIA). In addition, Article 7 (6) provides inter-alia that the Network may also invite observers from SIAs of third countries and other relevant experts to attend its meetings. Article 2, paragraph 2 of the ENCASIA rules of procedures mentions that *“The Network may invite safety investigation authorities of third countries to appoint representatives to participate, as observers, at the discretion of the Chairman, in the work of the network”*.

ENCASIA and the EC have been approached by a number of non-EU European Safety Investigation Authorities (SIAs), to be considered for membership as an Observer at ENCASIA meetings, workshops and training activities. It was therefore considered that a formal process should be put in place in order to provide selection criteria for use by the Sub-Committee on Observer Candidate States, for those candidate states seeking observer status in the Network and consequently to support the Chairman of ENCASIA on his/her decision.

A Sub-Committee has been formed chaired by the Deputy Chairman of ENCASIA with members from Cyprus, Greece, the Netherlands and Romania, and supported by the EC. The sub-committee considered possible criteria for membership and produced a draft guidance paper on *‘Guidance criteria for the assessment of candidate states seeking Observer status at the ENCASIA.’* The criteria to be adopted is still under consideration.

The Swiss Transportation Safety Investigation Board (STSB) have formally applied to join ENCASIA as an Observer and their application will be considered and actioned during 2019.

3) Mutual Support

3.1) Introduction

One of the main remits of ENCASIA is the mutual support of Member States in undertaking safety investigations. This support is usually within the framework of the requirement of ICAO Annex 13, where the state of registry, operator, design, manufacture or the state providing information, facilities or expertise at the request of the State conducting the investigation can appoint an accredited representative. States with a significant interest in the investigation, such as a number of citizens onboard the aircraft, might also be invited to appoint an accredited representative.

However, support is also provided between ENCASIA members, beyond the Annex 13 framework as a result of the close relations within Europe. This support has mostly involved the download of Cockpit Voice Recorders (CVR) and Flight Data Recorders, but as the example in paragraph 3.2 highlights, this support can also cover other aspects.

3.2) Example of mutual support during an investigation into an accident involving an Airbus 320-214 aircraft

On 28 February 2018, an Airbus A320-214 aircraft, operated by Smartlynx Airlines (Estonia), was performing a training flight with an instructor, a safety pilot, four students and one Estonian Civil Aviation Authority inspector on board. Following several successful ILS approaches and touch-and-go's, the aircraft did not respond as expected to sidestick pitch inputs when the aircraft reached rotation speed. The aircraft became airborne but lost altitude and hit the ground close to the end of the runway. After the initial impact, the aircraft climbed to 1,590 ft during which it lost power in both engines. The crew were able to stabilise the flight path by using manual pitch trim and attempted to return to the runway, but the aircraft struck the ground 150 m before the threshold. The aircraft was substantially damaged.

ESIB (Estonia) as the State of Occurrence and Operation, initiated an investigation and was assisted by BEA (France) as the State of Design and Manufacture of the aircraft and engines. BFU (Germany) as the State of Design and Manufacture of the flight control data concentrator units appointed an accredited representative. As the trimmable horizontal stabilizer actuator was last overhauled in the USA, the NTSB (USA) also appointed an accredited representative.

The CVR and FDR were downloaded at the premises of the BEA (France).

Due to the nature of this accident, the Operations Group required a specialist in flight training. SIAF (Finland), with whom Estonia had signed a Memorandum of Understanding for mutual support, were able to nominate an Accredited Representative and provide an investigator to participate in the work of the Operations Group.

3.3) Example of mutual support during an investigation into an accident involving a Boeing 737-800 aircraft

On the 3 July 2018 a B737-800 operated by Blue Panorama (Italy) flying from Rome FCO to Santorini (JTR) reported the deployment of oxygen masks following a Cabin Altitude Warning (as per relevant QRH procedure). The AAIASB (Greece) as the state of Occurrence, launched an investigation and requested support from the ANSV (Italy) who were the State of Operator to recover data from the CVR and FDR.

The CVR and FDR were downloaded at the premises of the ANSV (Italy).

4) Reorganisation of working groups

The responsibilities and activities of each of the WGs had been relatively unchanged since the formation of ENCASIA. In order to make better use of resources and to improve efficiency, the WGs were restructured and, in several cases, renamed to better reflect their activities. The WGs and their core responsibilities are listed in Table 3.

Working Group and Core Responsibilities	Chair
WG 1 Communication Communication policies and practices, internet content, contact lists.	AAIU (Belgium)
WG 2 Cooperation Best practice, mutual support, support to victims and their relatives.	BEA (France)
WG 3 ENCASIA MUTUAL SUPPORT SYSTEM (EMSS) Development of EMSS and desk top exercises.	AAIB (UK)
WG 4 Planning and Resources Finance, planning and logistical aspects of ENCASIA training, workshops and peer review activities.	BEA (France)
WG 5 Peer Reviews Developing, organising and running the peer review programme.	BFU (Germany)
WG 6 Safety Recommendations Safety recommendations, Safety Recommendation Information System, representing ENCASIA at EASA Network of Analysis, ECCAIRS Steering Committee, and ECCAIRS Steering Board.	AAIB (UK)
Executive Ad hoc groups formed to focus on non-routine issues such as EU policy, ENCASIA Opinion and member issues. Led by Chairman or Deputy Chairman of ENCASIA.	BEA (France) AAIU (Ireland)
SIA Sec	AAIB (UK)
EC Sec	EC

Table 3. ENCASIA Working Groups

5) ENCASIA's work programme

The 2018 ENCASIA Annual Work Programme is at Appendix 1 and covers the activities of the WGs. The progress of each of the work streams is summarised in the following WG reports.

5.1) Working Group 1: Communication

WG1 continued to update and improve the ENCASIA public and restricted (Drupal) websites, both of which are accessible through the EC website www.ec.europa.eu/transport/modes/air/encasia.

As part of the ENCASIA communication strategy, WG1 had focused on developing a regular newsletter that would be available to the public through the ENCASIA website. The newsletter would not replicate investigation reports but instead concentrate on the capability and development of air safety investigation and cooperation between ENCASIA members.

The intention was to invite each ENCASIA member to prepare a newsletter and, when sufficient material would be available, to start publication during 2019.

5.2) Working Group 2: Cooperation

WG2 continued to add to the ENCASIA repository of best / good practice held on Drupal and worked closely with the other working groups in the development of the ENCASIA Mutual Support System (EMSS), desktop exercises and investigator training.

During the year, two draft documents titled '*To investigate or not to investigate*' and '*Response to initial notification about an occurrence*' were prepared and uploaded to Drupal. In addition, four short procedures titled '*Brief for government officials*', '*Scoping the investigation*', '*Guidance on producing safety recommendations*' and '*Preparing a press release*' were prepared for use by SIAs in their national plans to manage a major safety investigation.

In September 2018, ENCASIA members at the 17th ENCASIA plenary meeting agreed to a representative of EASA participating in WG2 activities as an observer.

5.3) Working Group 3: ENCASIA Mutual Support System (EMSS)

At the 16th ENCASIA plenary meeting held in February 2018, the Chairmanship of WG3 moved from Finland to the UK. The number of members on the working group also increased to ten investigators from nine states.

The priority for WG3 was to continue to develop the concept of EMSS, which is intended to help SIAs with limited resources or experience to investigate a major complex aircraft accident. EMSS is a voluntary process that helps SIAs identify their

capability gaps and to develop contingency plans and prior arrangements with other SIAs.

During 2018, WG3 organised and ran three desktop exercises in ITSB (Iceland) from 16 to 18 May, AMRAIUU (Slovenia) from 29 to 31 May, and TAIID (Lithuania) from 5 to 7 June. The aim of the exercises was to allow these SIAs to exercise their National Investigation Management Plan (NIMP) and to gain experience in working with an Assisting SIA. The Assisting SIAs who helped these SIAs to develop their plans were the AAIB (UK), BEA (France), and BFU (Germany). As part of a contribution to the co-financing arrangements with the EC to support the exercises, the Assisting SIAs used their own budgets to send investigators, prior to the exercises, to assist with the development of the NIMPs. The exercises were supported by 24 investigators from 16 SIAs and a number of representatives from the respective governments and other national agencies. EASA also took part by phone from their offices in Cologne and by attending the exercise in Slovenia.

Further desktop exercises are planned to take place in:

- TAIIB (Latvia) from 26 to 28 March 2019, with BEA (France) acting as the Assisting SIA,
- GPIAAF (Portugal) from 2 to 4 April 2019, with the AAIB (UK) acting as the Assisting SIA.

SIAs who had not had the opportunity to send a representative, funded by the EC grant, to a desktop exercise during 2018 would be invited to do so at one of these exercises.

During the ENCASIA training session held in September 2018, WG3 organised and ran, with the assistance of the other working groups, a two-day training session on the concept of EMSS and the management and organisation of a major safety investigation.

5.4) Working Group 4: Planning and Resources

Formation of Working Group 4

As part of the reorganisation of the working groups the Training Steering Committee was stood down and replaced by the new WG4 chaired by BEA (France). This working group has a wider remit to undertake the financial, planning and logistical activities required to support the ENCASIA Work Programme and to coordinate the ENCASIA training activities.

Logistical support of ENCASIA activities during 2018

In March 2018, WG4 issued a call for tenders for the organization of the 2018 Work Programme composed of the three EMSS exercises, the ENCASIA training session in Malta and the eight Peer Reviews. Amongst the six companies that received the call for tenders, three of them sent proposals. B&S Europe was selected and awarded three separate contracts to cover:

- The three EMSS exercises in May/June 2018.
- The ENCASIA training session in September 2018.
- The eight Peer Reviews in October 2018.

ENCASIA training in Malta

The ENCASIA training session took place at the Cavalieri hotel in Malta from 25 to 27 September 2018 at the kind invitation of the Maltese authorities. The training covered the EMSS process and a refresher on the peer review process. With key individuals present, the opportunity was also taken to work on the preparation for the EMSS desktop exercises to be held during 2019.

This training was co-financed by a grant from the EC to ENCASIA ASBL and by the BAAI (Malta). In total, 37 members from 23 ENCASIA SIA's took part in these training activities of which 24 participants had their travel and accommodation paid for by the EC grant. The other participants were self-financing, among them a number of trainers who contributed to the training programme.

A representative from B&S Europe was present during the training session to resolve unforeseen difficulties and to assist in planning the travel for the on-site aspects of the upcoming Peer Reviews.

List of ENCASIA training activities

During the ENCASIA plenary meeting held on 18-19 September 2018, WG4 provided an update of all training activities carried out since the inception of ENCASIA and invited members to advise of any areas where ENCASIA might deliver training in the future. The activities are listed in Table 4.

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Date	Location	Topic
May 2013	UK	<ul style="list-style-type: none"> • Health & Safety. • Harmonised risk assessment framework.
October 2013	France	<ul style="list-style-type: none"> • Response to a major safety investigation. • Co-ordination of the examination of aircraft parts or systems. • Analysis of recorded data.
September 2014	UK	<ul style="list-style-type: none"> • Peer Reviews.
December 2015	Germany	<ul style="list-style-type: none"> • Response to a major aircraft accident within the EU. • Dealing with the media, political framework and families.
September 2015	Portugal	<ul style="list-style-type: none"> • Peer Reviews. • Risks to first responders from Ballistic Recovery Systems.
September 2016	Belgium	<ul style="list-style-type: none"> • Assisting ENCASIA members in conducting a major safety investigation. (This workshop was conducted after a plenary meeting and was not covered by the EC grant.)
September 2016	Austria	<ul style="list-style-type: none"> • Peer Reviews. • The use of SRIS. • Best / good practice.
September 2017	Czech Republic	<ul style="list-style-type: none"> • Peer Reviews. • Development of EMSS.
September 2018	Malta	<ul style="list-style-type: none"> • EMSS. • Briefing the media and government organisations.

Table 4. ENCASIA Workshops and training co-financed by the EC and member states

Logistical support of ENCASIA activities during 2019

WG4's major tasks during 2019 will be to organise the logistical aspects of:

- The desktop exercises to be held in Latvia and Portugal.
- A workshop / training to be held in Poland to review Phase 1 of the Peer Reviews and the progress of EMSS.

5.5) Working Group 5: Peer Reviews

Phase 1 of the peer review programme had been completed with all 28 member states and 2 observer states having been reviewed. In addition, the ENCASIA peer review questionnaire had been used by ENCASIA members to conduct Peer Reviews in Israel, Singapore and Nigeria. As part of their application to be considered as an observer state, WG5 is planning to conduct a peer review of the Swiss Transportation Safety Investigation Board during 2019.

WG5 has since focussed on analysing the data from the Peer Reviews which would be discussed with the ENCASIA members at a workshop to be held in Poland during autumn 2019. The intention is to produce two reports in early 2020: a main report that would have a restricted distribution and an executive summary that would be released to the public.

Phase 2 of the peer review programme would commence in 2021. A decision on the focus for these Peer Reviews would be made at the ENCASIA plenary meeting to be held in September 2019 and would be based on the findings from the Phase 1 programme. Planning and training of reviewers would take place during 2020 and 2021.

The peer review programme has proven to be very successful in enabling ENCASIA to meet a number of its objectives detailed in Regulation (EU) No 996/2010. Sixty-nine investigators from 31 SIAs were trained in the peer review process and the management of a major investigation, with 36 investigators from 19 SIAs having participated in a peer review. The peer review teams working together, and jointly drafting a report also provide an additional benefit of a better mutual knowledge and understanding across Europe.

5.6) Working Group 6: Safety Recommendations

Overview

WG6 continued to support other organisations with the development of the European Safety Recommendation Information System (SRIS) and the European Central Repository (ECR) databases.

European Central Repository

Regulation (EU) No 996/2010 (Article 18) requires member states to record in the ECR all safety recommendations issued in accordance with Article 17(1) and (2). A decision was made by the EC in 2017 that support of the ECR would transfer from the DG-JRC (Joint Research Centre) to EASA at the end of December 2019.

The project to update the ECR supporting software to ECCAIRS 2.0, which is referred to as E2, has now completed phase⁶ II. E2 is to be used to manage the European safety recommendation database as well as the European reportable events database required by Regulation 376/2014. ECCAIRS software is also used by some SIA's to manage their own investigated events database. ENCASIA is active in the Key User Group (KUG) and has assisted in the defining of the key requirements for the recording of safety recommendations and for the management of SIA's events databases to ensure that the current and future anticipated needs will be met. In the meantime, DG-JRC continued to support SRIS in ECCAIRS 1.0 and will do so until December 2019.

The Chair of WG6 had provided input to the ECCAIRS Steering Board and Committee on behalf of ENCASIA. Issues raised were in relation to possible confusion on notification of accidents and serious incidents under Regulation (EU) No 376/2014 and Regulation (EU) No 996/2010. Some organisations were under the impression that reporting under Regulation (EU) No 376/2014 to a National Aviation Authority (NAA) also constituted notification under Regulation (EU) No 996/2010, whereas the legal requirement for accidents and serious incidents is to report separately under each regulation. Notification under Regulation (EU) No 996/2010 should be to the SIA in the State of Occurrence.

Public SRIS

Following the issue of the ENCASIA Opinion⁷ in 2017 on expanding Public SRIS to include responses, it is anticipated that the EC would issue a 'Commission Decision' in 2019.

An enhanced text search capability for Public SRIS is also being developed.

Training and guidance

A workshop on safety recommendations and working with addressees is planned for February 2019. The aim of the workshop is to provide guidance for SIAs on working with addressees, while maintaining the independence of the SIA. The workshop will look at the drafting of a safety recommendation, assessing responses, monitoring actions and closing recommendations.

⁶ ECCAIRS 2.0 was being developed in these phases:

- Phase I – Functional specification.
- Phase II – Detailed technical analysis and architecture
- Phase III – Development.
- Phase IV – User acceptance testing.
- Phase v – Data migration.

⁷ The ENCASIA opinion concerning Public Access to Safety Recommendation Responses Recorded on the EU Safety Recommendations Information System (SRIS) Database can be download at https://ec.europa.eu/transport/sites/transport/files/sris-encasia-opinion_0.pdf

The workshop, which would be co-hosted with EASA and held at their headquarters in Cologne, would be open to representatives from SIAs and NAAs who are the most likely recipients of safety recommendations.

The videos on the use of SRIS had been updated and were available to SIAs from the ENCASIA restricted website (Drupal).

Quality checks

A system of quality checks of the SRIS is in place, with individual members of WG6 nominated to provide support and guidance to a group of member states on improving the quality of the data in their safety recommendations on SRIS.

6) Impact of GDPR on accident investigation

Regarding the General Data Protection Regulation (EU) No 2016/679 (GDPR), ENCASIA considered the impact on safety investigation activities and the work of ENCASIA:

- Regulation (EU) No 996/2010 Articles 11, 13, 20 and 21 give SIAs the legal obligation to obtain personal information. Article 15 allows information collected during the investigation to be shared for legitimate reasons, providing the recipient is bound by rules of professional secrecy.
- Personal data managed by the EC as part of the ENCASIA activities is protected by Regulation (EU) 2018/1725⁸.
- Personal data managed by the Chairman of the working groups and by the ENCASIA secretary should be treated in accordance with the national rules implementing GDPR in the state of the individual handling the data.
- Personal data held by ENCASIA ASBL is subject to the Belgium rules implementing GDPR.
- Personal data held on ECCAIRS ECR and SRIS is also protected by Regulation (EU) 2018/1725.

7) Evaluation of Regulation (EU) No 996/2010

ENCASIA played an active role in supporting the EC evaluation of Regulation (EU) No 996/2010 and the supporting study by ECORYS, which was published on the EC website⁹ in October 2018. The ECORYS report contained seven recommendations of which three related to activities carried out by ENCASIA.

⁸ Regulation (EU) 2018/1725, which aligns with GDPR, repealed and replaced Regulation (EC) 45/2001.

⁹ The study titled '*Support study to the evaluation of Regulation (EU) No 996/2010 on the Investigation and Prevention of Accidents and Incidents in Civil Aviation*' can be download from:

ENCASIA will work with the EC in addressing these recommendations once the Commission Staff Working Document has been published.

8) Revision of Regulation (EC) No 216/2008

The new Basic Regulation (EU) 2018/1139, which replaced Regulation (EC) No 216/2008, came into force on 11 September 2018 and made a number of changes which may have an impact on the obligation to investigate a serious incident or accident. The significant changes are:

- Opt-in for State aircraft. Article 2(6)
- Opt-in for design organisations of 'Annex I' (low-risk) aircraft. Article 2(4)
- Opt-out for light sport aircraft and sailplanes below a prescribed weight category. Article 2(8)
- Integration of unmanned aircraft. Articles 55-58, 59(b), 60-61 and Annex IX
 - All unmanned aircraft are within the scope of the regulation and the previous 150 kg threshold had been removed
 - Registration required for certified drones and operators of drones with a kinetic energy greater than 90 kJ
 - Protection and efficient use of radio-spectrum
- Addressing cyber security threats
- Article 5 of Regulation (EU) No 996/2010 had been modified such that states may decide, providing no person has been fatally or seriously injured, not to investigate accidents involving:
 - An unmanned aircraft for which certificate or declaration is not required, or
 - a manned aircraft with a maximum take-off mass < 2,250kg,
- Annex I (which replaces the former Annex II) updates the categories of Annex I aircraft (low-risk). In addition, ground-handling services had been added to the scope

9) Data Analysis of the Safety Recommendations Information System (SRIS)

ENCASIA is required by Regulation (EU) No 996/2010, Article 7.3(g), to analyse the safety recommendations that have been entered onto SRIS and to identify important Safety Recommendations of Union Wide Relevance (SRUR). This analysis is carried out by WG6.

While this Annual Report refers to data that was entered onto SRIS up to 27 December 2018, the analysis of the data was carried out by WG6 on data available on SRIS up to 30 November 2018.

9.1) SRIS overview

As of 27 December 2018, 3,086 safety recommendations had been recorded on SRIS, of which 265 were issued in 2018.

The following charts provide a summary of the safety recommendations on SRIS. Chart 1 shows the number of safety recommendations issued by each state.

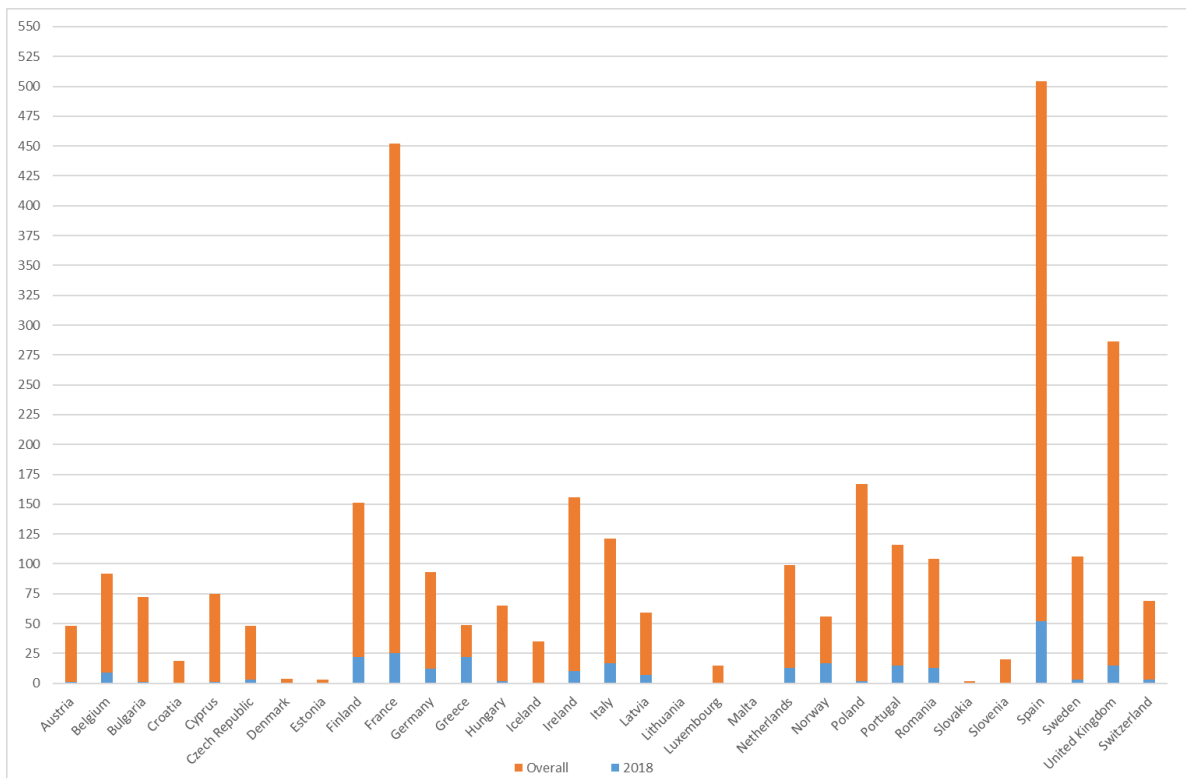


Chart 1. Summary of safety recommendations recorded on SRIS by State

Chart 2 shows the number of safety recommendations recorded on SRIS by year.

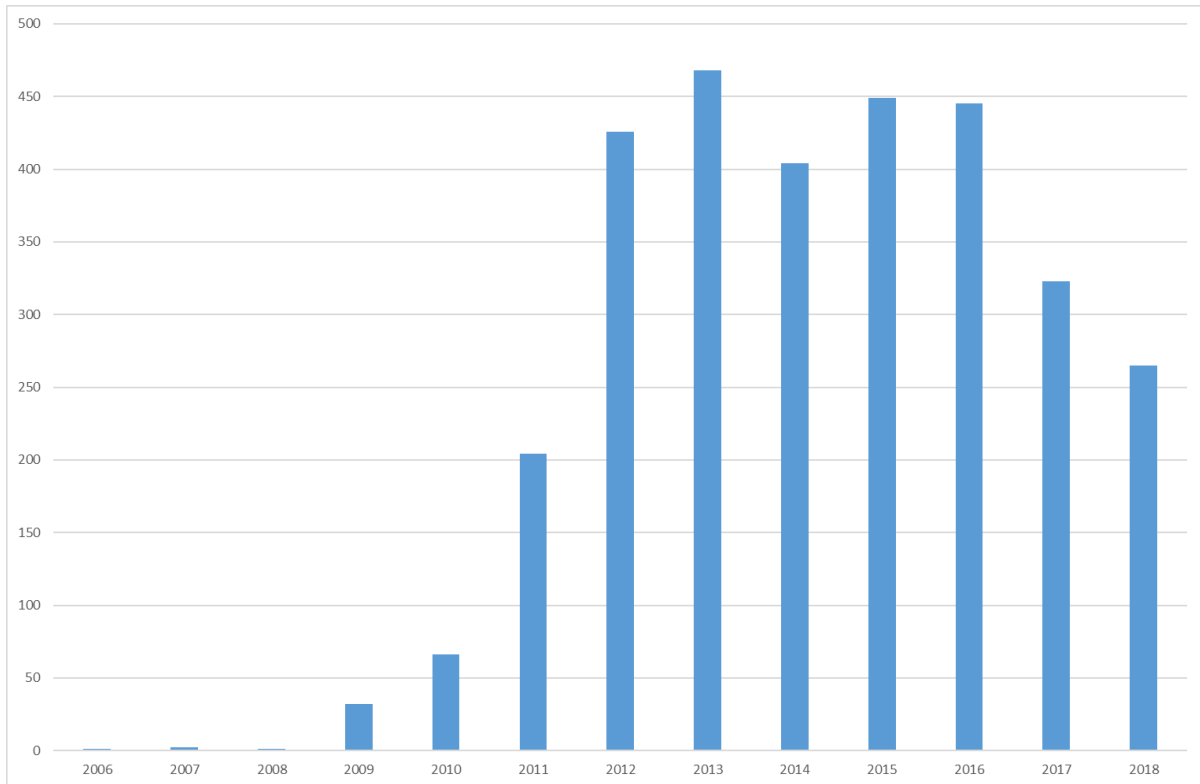


Chart 2. Number of safety recommendations recorded on SRIS by year

9.2) Safety Recommendations of Union-wide Relevance

A Safety Recommendation of Union Wide Relevance (SRUR) is defined as meeting one or more of the following criteria:

- The deficiency underlying the safety recommendation is systemic, not related to a specific aircraft type, operator, manufacturer component, maintenance organisation, air navigation service and/or approved training organisation, and is not solely a national issue, or;
- There is a history of recurrence across Europe of the relevant deficiency.

In 2018, there were 44 safety recommendations that were assessed as being a SRUR and covered the following safety issues, which are expanded on in the following sub-paragraphs:

- Ballistic Parachute Recovery System
- Commercial Balloon operations
- CVR installed performance
- Door opening
- Flight time limitations
- Helicopter Gearbox
- Helicopter Emergency Medical Service
- Maintenance records

- Passenger Restraints
- Runway edge lighting
- Simulator training for bird strikes
- Take off performance
- Vibration Health Monitoring
- Visual approaches

Ballistic Parachute Recovery System (BPRS)

An aircraft crashed close to a farmhouse, hitting part of the structure of the building. The aircraft caught fire after impact and the crew on board were fatally injured. During the site survey, ANSV (Italy) personnel detected part of the BPRS near the wreckage. The first responders who intervened at the accident site had not taken any precautions as they were unaware of the risks related to this type of device.

Taking into account the provisions of national regulation for ultralight aircraft, the ANSV made a safety recommendation to Aero Club Italia (the national entity responsible for this type of aircraft) to define suitable markings to identify externally, on the aircraft, the presence and position of the BPRS. The markings should also indicate the maximum temperatures allowed in order to avoid self-ignition of the pyrotechnic device. This safety recommendation is similar to safety recommendations raised by other European SIAs to their NAAs, EASA and ICAO in order to reduce the risk from the hazard that BPRS poses to first responders and accident investigators.

(Safety recommendation: IT.SIA-2018-0012)

Commercial Balloon operations

Near the end of the cruise phase, a commercially operated balloon was flying in a convective atmosphere that generated significant wind variations. The pilot made the decision to land but the balloon struck the ground hard and regained height. On the second landing, the basket turned over. The burner pilot lights were still on and a fire broke out during the evacuation of the occupants. The BEA (France) made several safety recommendations to EASA to:

- Update balloon flight manuals.
- Add emergency fire-prevention shut-off systems to balloons.
- Carry out an impact assessment for regulation of balloons operating commercial air transport (CAT).
- Improve CAT ballooning oversight methods.
- Review the target level of risk for CAT balloon operators.

(Safety Recommendations: FR.SIA-2018-004, FR.SIA-2018-006, FR.SIA-2018-007, FR.SIA-2018-008, FR.SIA-2018-009)

CVR installed performance

During an investigation into a serious incident on a Boeing 787, the AAIB (UK) identified issues with a degraded CVR audio recording. There were several causes

for the reduced audio performance, including system software, cockpit airflow and dynamic range differences between the headset and oxygen mask. The potential to lose information due to the reduced installed performance led to safety recommendations being made to the regulatory authorities and EUROCAE, who define the specifications for CVR, to amend the minimum performance specifications for CVR to introduce a repeatable and objective analysis technique to establish installed CVR performance.

(Safety Recommendations: GB.SIA-2018-009, GB.SIA-2018-0010)

Door opening precautions

An individual was killed as a result of a door opening 'explosively' on the ground as a result of the cabin being pressurised. The SIA (Finland) issued a safety recommendation to EASA to remind the aviation community and first responders about the safety hazard associated with opening doors on aircraft that may be pressurised on the ground.

(Safety Recommendation: FI.SIA-2018-0010)

Flight time limitations

Two safety recommendations were issued by the ANSV (Italy) in their final report into an accident that occurred during a cargo line training flight where the aircraft overran the runway while landing in marginal weather conditions at Bergamo (LIME) airport. The landing gear and both engines separated from the main fuselage and the aircraft came to rest about 520 m beyond the end of the runway. The crew evacuated the aircraft but suffered serious injuries. Although flight time limitations were not exceeded, the safety investigation could not rule out operational fatigue as a contributory factor.

The ANSV made a safety recommendation to EASA to evaluate the introduction into Flight Time Limitations (FTL) a correction coefficient to further limit the flight time if additional functions are carried out by the crew, such as line training or a line proficiency check.

The ANSV also recommended that EASA re-examine the current limitations to the flight time for any activity that falls within the lower circadian cycle; evaluate the possibility of introducing a systematic and scientific method for determining the degree of fatigue of the crews; and evaluate the possibility of introducing continuous fatigue monitoring during the flight time period.

(Safety Recommendations: IT.SIA-2018-0008, IT.SIA-2018-0009)

Helicopter Gearbox

Following an accident which involved a catastrophic failure of the main gearbox on an EC225 helicopter in Turoy, Norway, the AIBN (Norway) included several safety recommendations related to gearbox design in their final report. These safety recommendations called for:

- Research into crack development to predict reduction in service life from surface damage.
- Amendment of the regulatory requirements about procedures and instructions for continued airworthiness for helicopter critical parts to maintain design integrity.
- Amendment of the AMC for CS29 to highlight different modes of component degradation and how these affect crack initiation and propagation, and fatigue life.
- Research methods for improving detection of component degradation in helicopter epicyclic planet gear bearings.
- Revision of the type design to improve the robustness reliability and safety of the main rotor gearbox.

In addition, the AIBN recommended that the EC and ICAO should evaluate means to ensure that SIAs have free access to information held by the various organisations involved in the design, certification, manufacture, maintenance and operation of an aircraft.

(Safety Recommendations: NO.SIA-2018-0001, NO.SIA-2018-0002, NO.SIA-2018-0003, NO.SIA-2018-0004, NO.SIA-2018-0005, NO.SIA-2018-0006, NO.SIA-2018-0007, NO.SIA-2018-0008, NO.SIA-2018-0009, NO.SIA-2018-0010 NO.SIA-2018-0011, NO.SIA-2018-0012)

Helicopter Emergency Medical Service (HEMS)

During a HEMS flight in marginal weather conditions, and while en-route with the casualty to the hospital, the helicopter struck the southwest slope of a mountain at a height of approximately 1,840 m above mean sea level. All the occupants on board were fatally injured and the helicopter was destroyed.

Current legislation does not provide tools for HEMS operators to support the decision-making process of the commander, nor to oversee the actions of the crew both in real time and after the mission itself. The ANSV (Italy) therefore made a safety recommendation to EASA to evaluate the possibility of providing tools (such as flight following and Flight Data Monitoring) aimed at providing such support.

(Safety Recommendation: IT.SIA-2018-0007)

Maintenance records

A cargo airplane aircraft, with two pilots on board, took off from Paris-Charles de Gaulle airport for a flight to Dole. A few minutes into the flight, a propeller blade from the left engine failed and passed through the fuselage. The crew made an emergency landing at Paris-Charles de Gaulle.

The investigation had difficulty in obtaining the relevant maintenance records for the propeller system as these had been destroyed because their retention was not required by regulations. The BEA (France) made a safety recommendation to EASA to modify Part 145 and Part M for maintenance data records to increase the retention periods.

(Safety Recommendation: FR.SIA-2018-001, FR.SIA-2018-002)

Passenger Restraints

The AAIU (Belgium) issued several safety recommendations to EASA to improve survivability in General Aviation (GA) aircraft that were certified to older certification requirements that only required GA aircraft to be fitted with a lap-strap or 2-point harness. The safety recommendations were:

- To require GA aircraft to be fitted with, at least, a 3-point harness system with upper torso restraints provided for the flight crew seats.
- To amend regulations to require passengers to use passenger restraints at heights below 2,000 feet

(Safety Recommendations: BE.SIA-2018-0002, BE.SIA-2018-003, BE.SIA-2018-0004)

Runway edge lighting

As a result of a serious incident in which an aircraft was misaligned with the runway centre line on takeoff at night and collided with several runway edge lights, a safety recommendation was made by the DSB (Netherlands) to ICAO to develop a standard in Annex 14 for runway edge lighting.

(Safety Recommendation: NL.SIA-2018-0009)

Simulator training for bird strikes

Whilst on short final approach, an aircraft collided with a thick flock of starlings. The crew aborted the landing and set go-around thrust; however, both engines did not provide the necessary thrust in time to complete the manoeuvre. The aircraft rapidly lost speed and height, and landed heavily on the runway, severely damaging the landing gear, fuselage and wings.

The ANSV (Italy) made a safety recommendation to the FAA and EASA that flight crews should be provided with guidelines and/or operational and training procedures, based on a careful assessment of the risks associated with the operation of an aircraft on approach in case of single/multiple bird strikes.

For crew training, particularly during critical phases of flight, unexpected events capable of generating 'surprise' and 'startle' effects should be identified. Therefore, the ANSV also recommended that crews should be trained to handle such events through visualizations and conditioning exercises.

(Safety Recommendations: IT.SIA-2018-0014 and IT.SIA-2018-0015 IT.SIA-2018-0016 and IT.SIA-2018-0017)

Takeoff performance

During 2018, three SIAs [BEA (France), AAIB (UK) and DSB (Netherlands)] investigated and issued final reports where a causal factor was the takeoff performance. In each case erroneous take-off performance calculations resulted in insufficient thrust being set for take-off. This resulted in the aircraft becoming airborne with limited runway remaining and crossing the opposite threshold at a low height. In one case the aircraft's tail-strike protection activated and in another case the aircraft's wheels collided with the approach lights at the end of the runway. As a result of these investigations, several safety recommendations have been issued to regulatory authorities to:

- Update the existing impact assessment and safety benefit of take-off performance management systems.
- Develop specifications for take-off performance monitoring systems.
- Develop specifications and certification standards for take-off acceleration monitoring systems.
- Develop specifications for onboard weight and balance systems,
- Assess the safety benefit of coarse error detection and warnings in existing systems.
- Encourage manufacturers to develop systems to increase protection against erroneous parameters being used for take-off performance.

(Safety Recommendations: NL.SIA-2018-0001, NL.SIA-2018-0002, FR.SIA-2018-0024, FR.SIA-2018-0025, FR.SIA-2018-0026, FR.SIA-2018-0027, GB.SIA-2018-0014)

Vibration Health Monitoring (VHM)

An S92 helicopter suffered a failure of the tail rotor pitch change shaft bearing leading to uncontrolled inputs to the tail rotor. The VHM system had shown vibration exceedances prior to the flight, but these had not been identified during the routine maintenance owing to the design of the ground station interface. Safety recommendations were issued by the AAIB (UK) to EASA to research the development of VHM data acquisition and processing to reduce the data set capture interval times and enhance the timely detection of an impending failure. It was also recommended that VHM data should be gathered in real time and presented to the crew in the event of an exceedance.

(Safety Recommendations: GB.SIA-2018-0006, GB.SIA-2018-0007)

Visual approaches

The crew was preparing for an ILS approach to land on runway 30, at Deauville Airport. It was the Pilot Flying first flight to this aerodrome and the crew announced a visual approach on the radio but prepared for a visual manoeuvring procedure. They used the visual manoeuvring (circling) procedure instead of the visual approach procedure and continued the descent in the final turn under the final approach. This resulted in the aircraft being at a minimum-recorded altitude of 49 ft above the aerodrome whilst still at a distance of 3 nm from the runway threshold.

The Terrain Avoidance and Warning System alerts meant the crew were able to react and prevented a collision with the ground. The BEA (France) issued a safety recommendation to EASA to promote recurrent training on visual approach procedures.

(Safety Recommendation: FR.SIA-2018-003)

9.3) Safety Recommendation of Global Concern

The AAIU (Ireland) issued a Safety Recommendation of Global Concern (SRGC) to ICAO.

The safety recommendation followed from an investigation into several reported 'smoke in aircraft' events resulting from smoke from wildfires on the Iberian Peninsula, which had been drawn toward the UK and Ireland. In most cases, the smoke in the cockpit and cabin resulted in the flight crew donning oxygen masks and declaring emergencies. Some of these events resulted in emergency descents and diversions. In one event, the flight crew had difficulty communicating whilst wearing the oxygen masks, thus compromising crew performance. The flight crew were unaware of the atmospheric conditions.

The AAIU made a safety recommendation to ICAO to consider the inclusion, as appropriate in Annex 3 (Meteorological Service for Air Navigation) requirements regarding the provision of information to flight crews on the presence of smoke in the atmosphere from ground fires.

(Safety Recommendation: IE.SIA-2018-0009).

9.4) Safety Recommendation topics

Each safety recommendation is assigned a topic that best indicates the area that the safety recommendation addresses. The topics are allocated to three levels, with Level 1 being the highest and covering four topics. Each Level 1 topic is further broken down into sub-topics.

Chart 3 shows the level 1 topics with the number of those assigned to each category. From Chart 3, it can be seen that most of the safety recommendations raised during 2018, as in previous years, were related to procedures or regulations. There has been a slight increase in safety recommendations related to the Quality Management System (QMS), Safety Management Systems (SMS) and State Safety Plan (SSP). Of those related to procedures and regulations the majority were for aircraft operations or maintenance.

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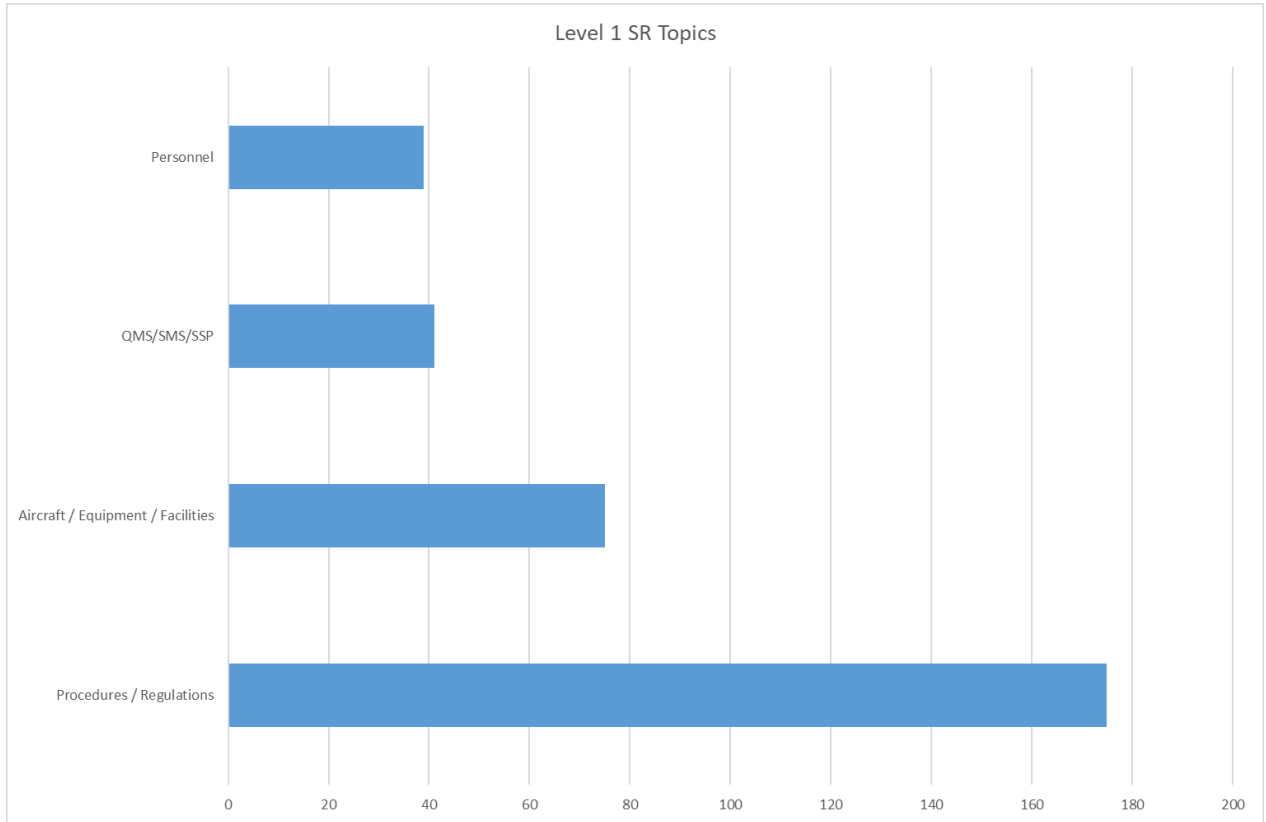


Chart 3. Level 1 safety recommendation topics

Charts 4, 5, 6 and 7 show the sub-level 2 topics for each of the higher level 1 topics. Chart 8 shows a further breakdown of the topics related to aircraft equipment, with the majority of these related to safety equipment and aircraft systems.

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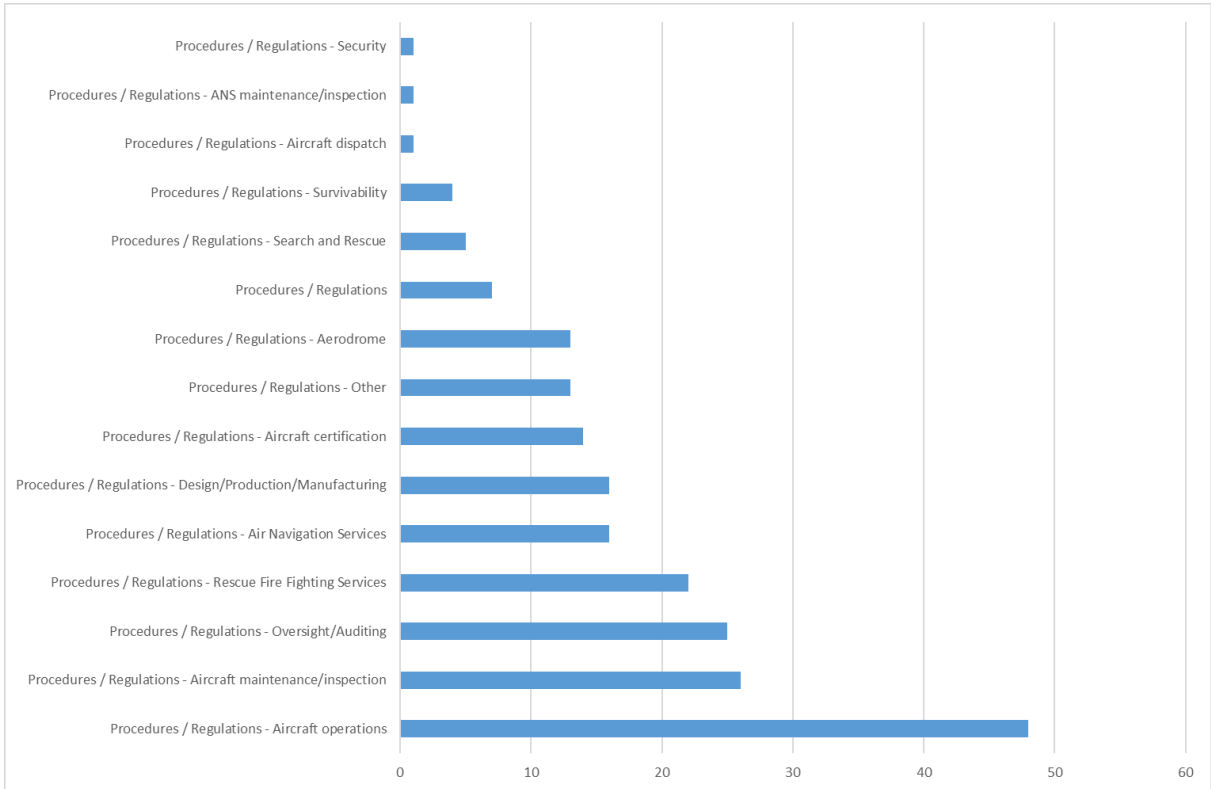


Chart 4. Level 2 safety recommendation topics relating to Procedures and Regulations

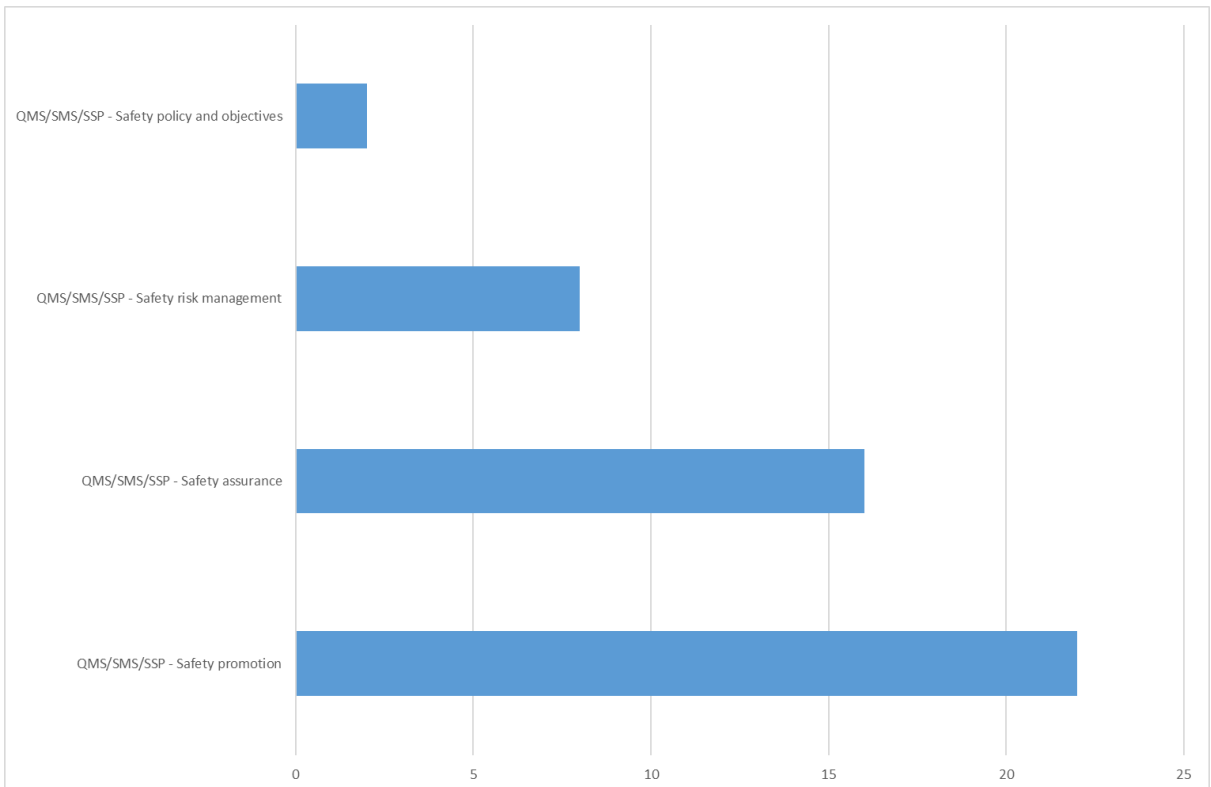


Chart 5. Level 2 safety recommendation topics relating to QMS/SMS/SSP

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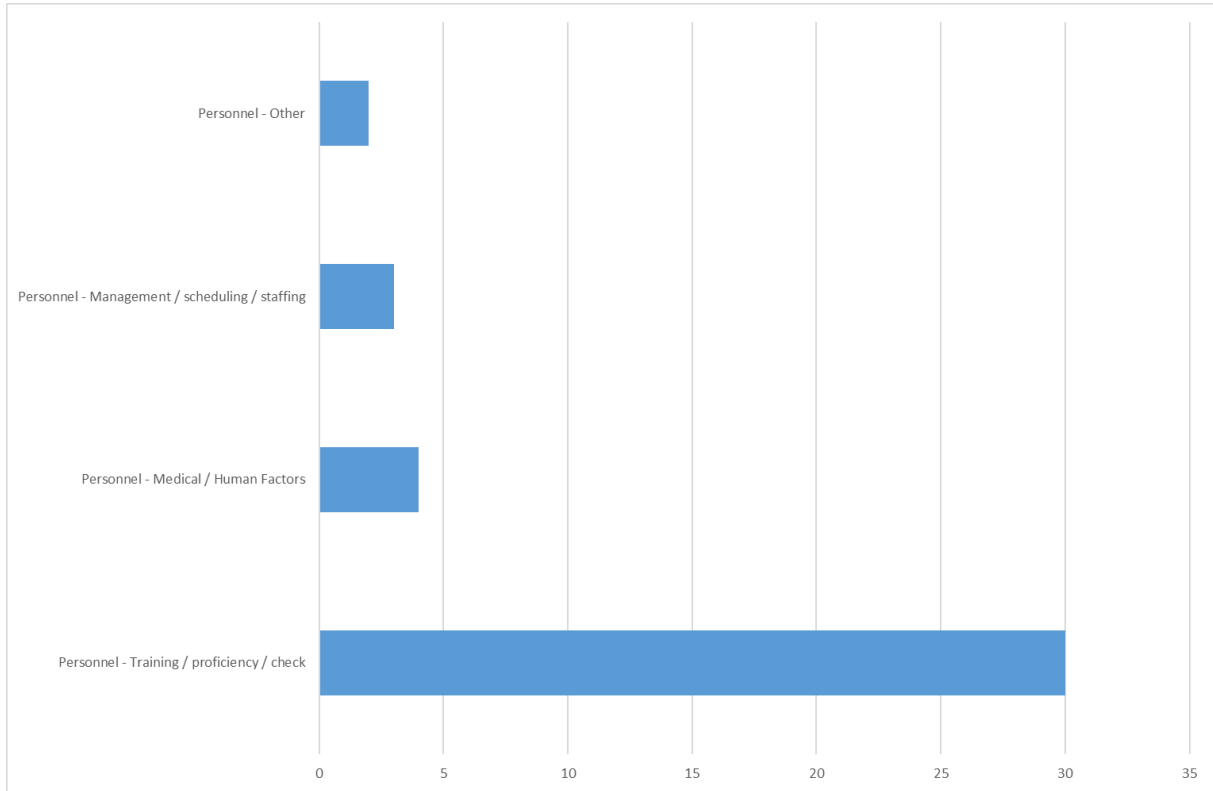


Chart 6. Level 2 safety recommendation topics relating to Personnel

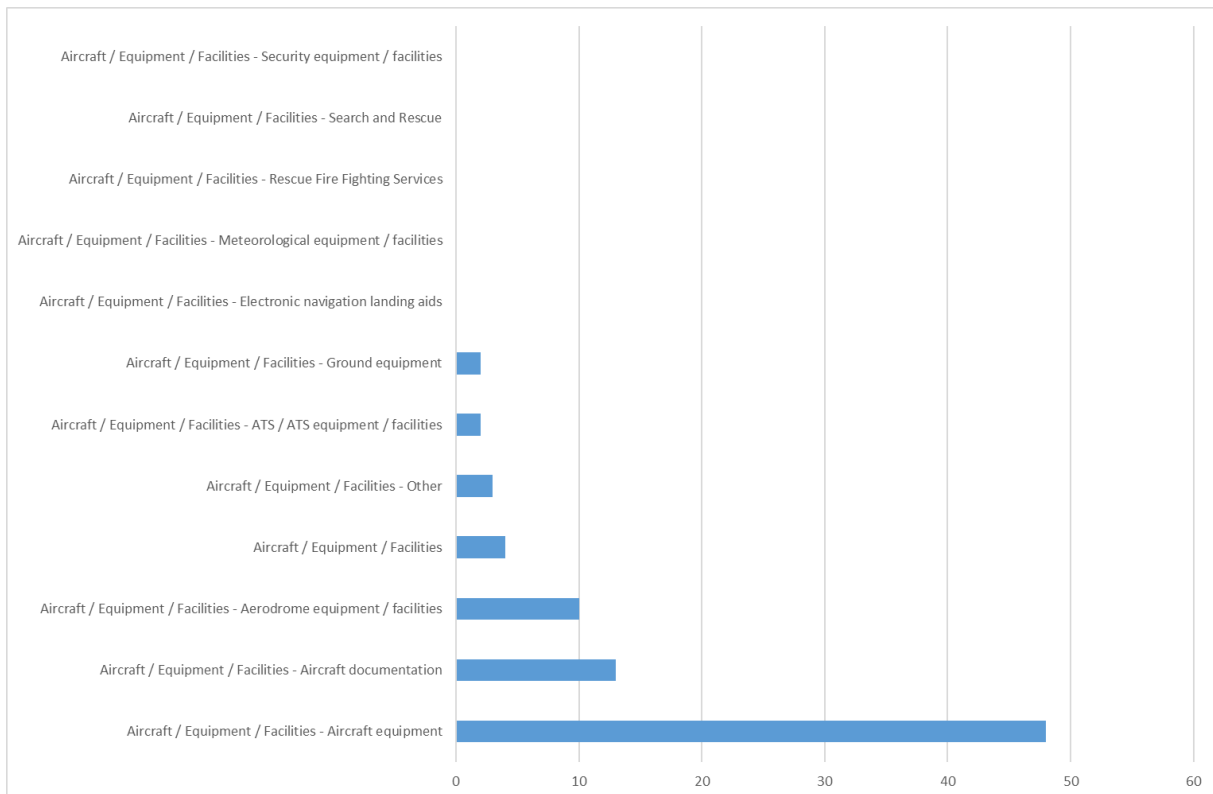


Chart 7. Level 2 safety recommendation topics relating to aircraft / equipment / facilities.

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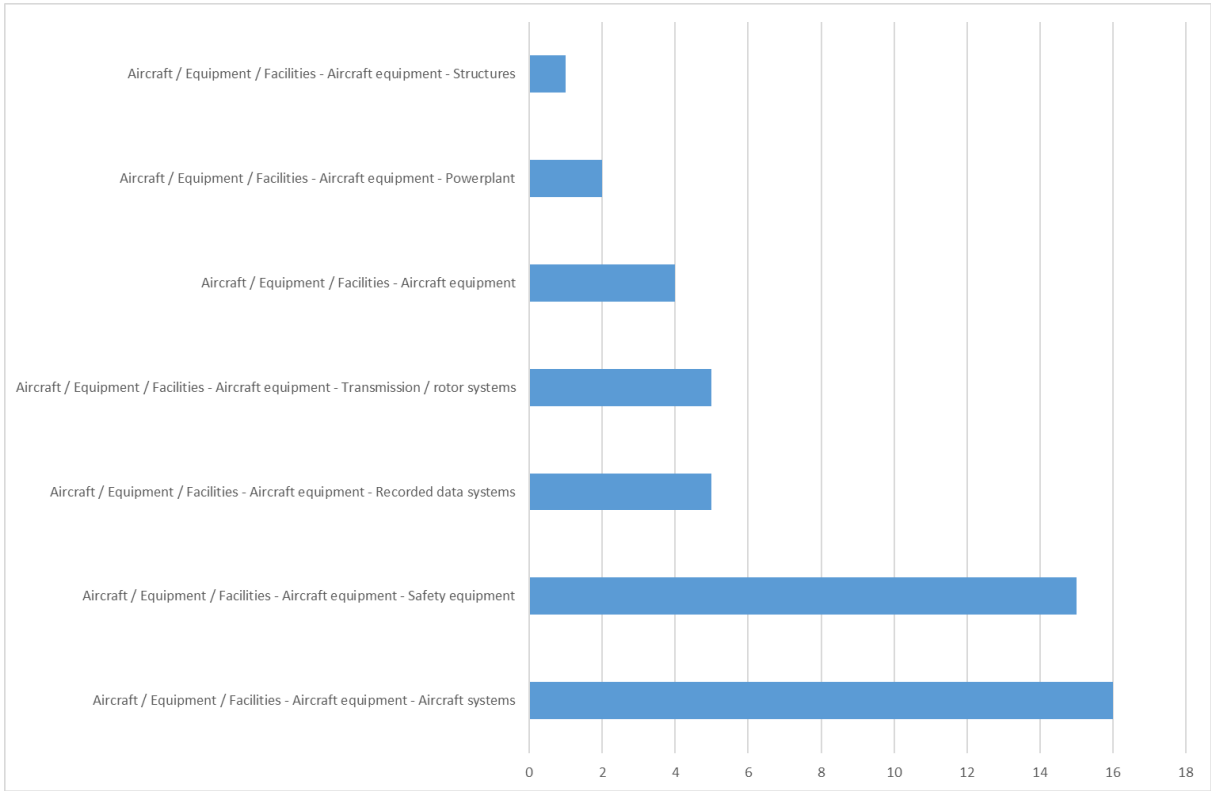


Chart 8. Level 3 safety recommendation topics relating to aircraft systems

9.5) Safety Recommendation addressees

Most of the safety recommendations issued during 2018 were addressed to National Civil Aviation Authorities (NAA). The second most frequent addressee is EASA. The term 'National Authority' is used to refer to authorities that are not involved in the regulation of Civil Aviation.

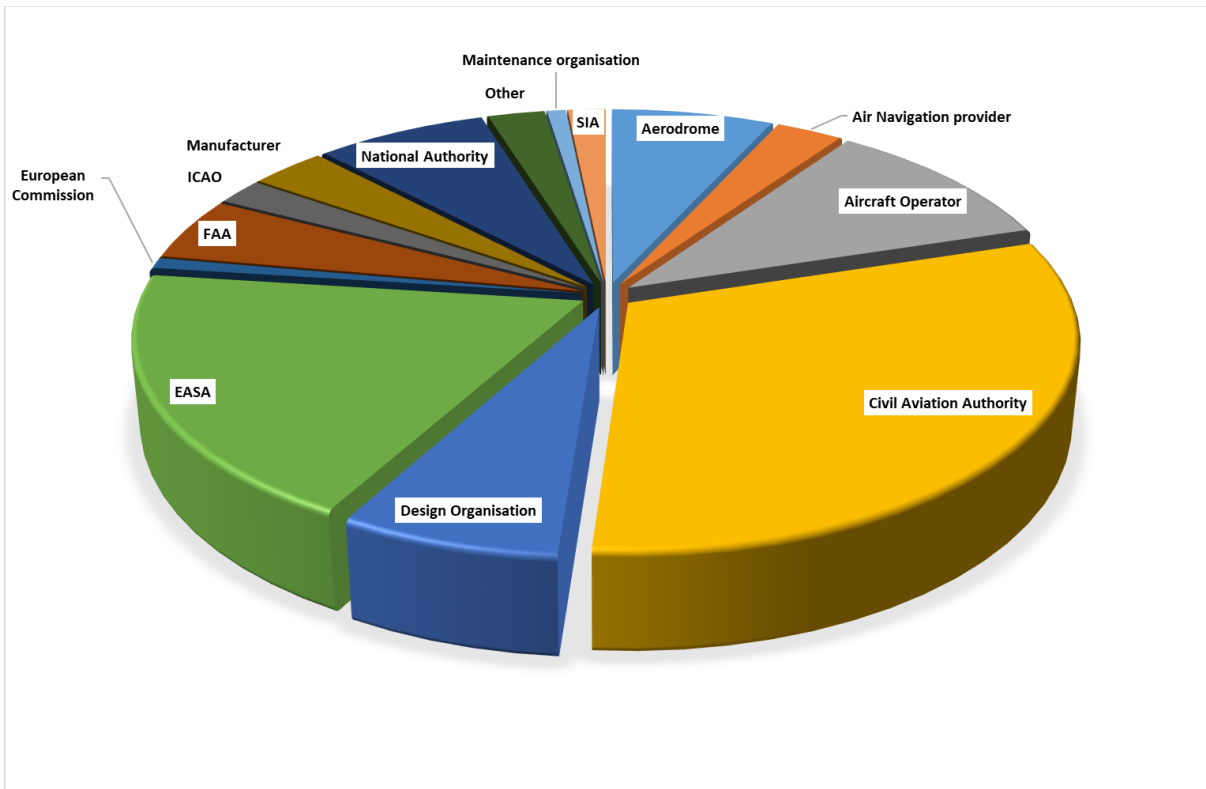


Chart 9. Addressees of Safety Recommendations issued in 2018

9.6) Safety Recommendation response assessment by SIA

Regulation (EU) No 996/2010 (Article 18) requires addressees to respond within 90 days of receiving a safety recommendation. On receipt of a response, the SIA should assess the response and provide an assessment with a written explanation if the SIA considers that the response is anything other than adequate. Of the 265 safety recommendations issued in 2018, 178 (67%) are still awaiting a response.

A breakdown of the SIA’s assessment of responses to safety recommendations issued during 2018 is summarised in Chart 10.

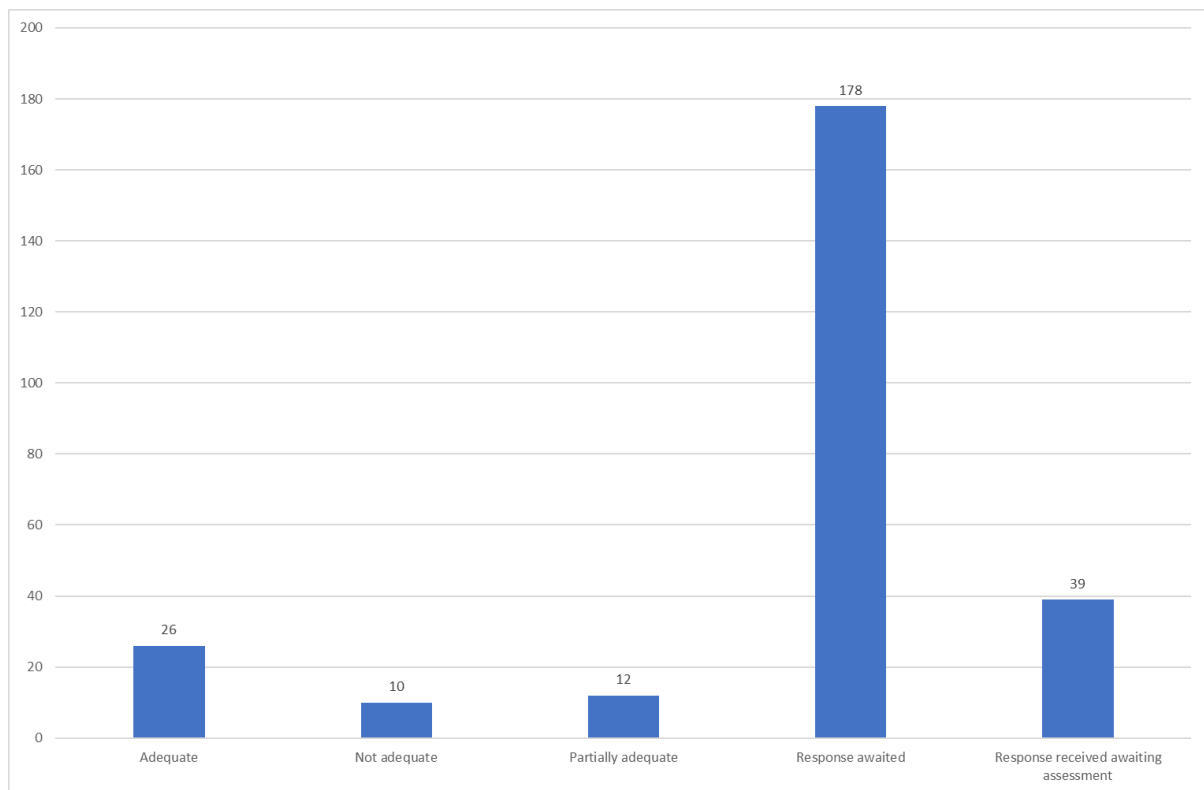


Chart 10. SIA’s assessment of responses to safety recommendations issued in 2018

9.7) Update on 2017 Safety Recommendations

The ENCASIA Annual Report for 2017 stated that as of 28 December 2017, 248 safety recommendations had been recorded on SRIS for 2017. An additional 75 safety recommendations for this period were entered during 2018, so as of 27 December 2018 a total of 323 safety recommendations had been recorded on SRIS as having been issued during 2017. The number of SRUR issued in 2017 increased by three.

The added SRUR covered:

- Planned landing time and weather assessment for commercial balloon operations. Issued by SHK (Sweden).
- Safety harness/restraint system for commercial balloon operations. Issued by SHK (Sweden).
- Prevention of injury to head and upper body for all occupants in general aviation aircraft. Issued by STSB (Switzerland).

Chart 11 shows the current response assessments for previous years. Regarding the response period, ICAO Annex 13 states:

“6.10 A State that receives safety recommendations shall inform the proposing State, within ninety days of the date of the transmittal correspondence, of the preventive action taken or under consideration, or the reasons why no action will be taken.”

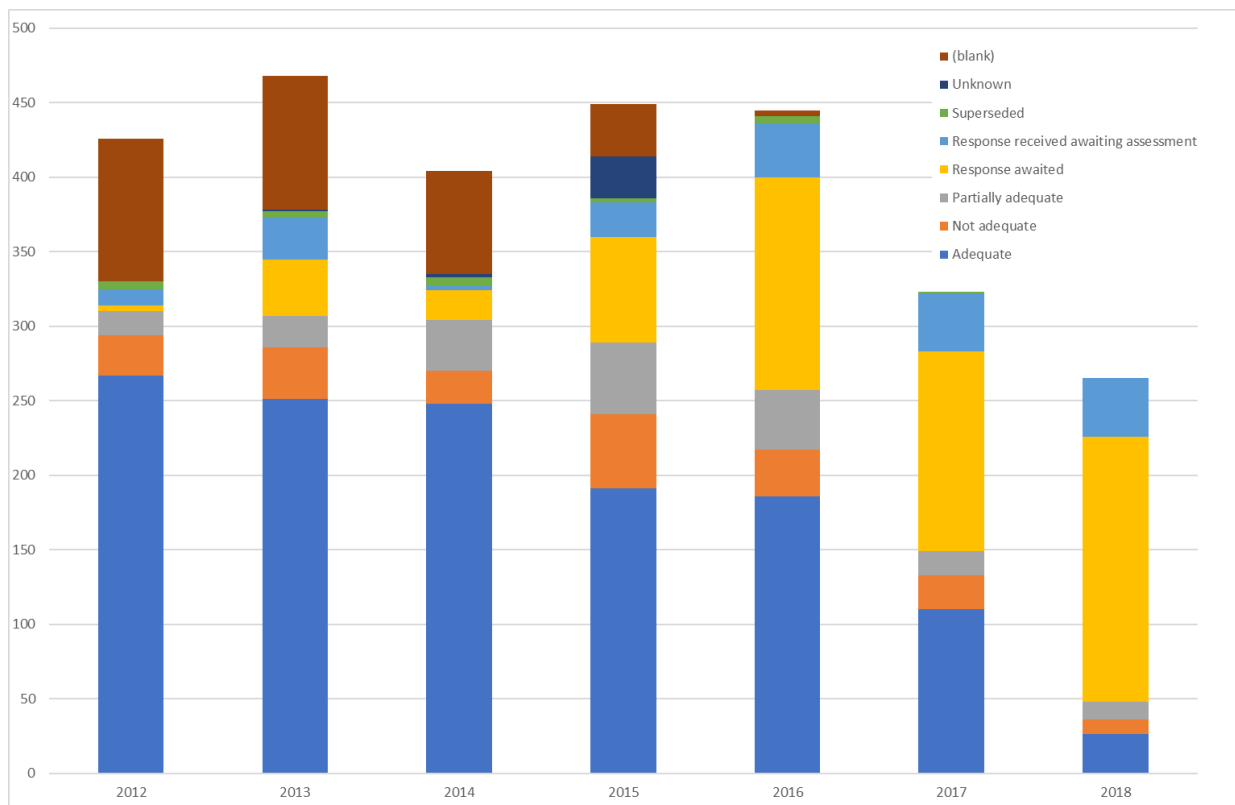


Chart 11. Response assessments for safety recommendations

Following the publication of the ENCASIA Annual Report 2017, WG6 reviewed the responses to safety recommendations by cross referencing with EASA. Of the 42% of safety recommendations recorded in the 2017 Annual Report as 'response awaited', 12% were issued to third countries. Therefore, either European addressees are not responding to safety recommendations in the 90 days required by Article 18 or their responses are not being recorded on SRIS by the SIA. WG6 is currently working with the relevant states to understand the reasons for the lack of responses.

9.8) Safety Studies

During 2018, one safety study was carried out by an ENCASIA member, which generated one safety recommendation. The study was carried out by the SCAAI (Poland) who issued a safety recommendation, as a letter to the OSL Aeroklub Warszawski (Poland). The result of the study has not yet been published.

CONCLUSIONS (THE WAY FORWARD)

The increase in the number of fatal commercial aircraft accidents that occurred during 2018 is a timely reminder of the importance of the work of SIAs in identifying the cause of accidents and in working with other stakeholders in reducing the accident rate. However, the challenges facing SIAs operating in an ever-changing environment is as great as ever. ENCASIA will address these challenges by continuing to provide a mechanism for mutual support and helping Member and Observer States to improve their capability to organise and manage a major safety investigation.

A priority during 2019 will be to analyse the data collected during Phase 1 of the Peer Reviews, which will be discussed by members at a workshop to be held in Poland during the autumn to help focus the future work of ENCASIA. The opportunity will also be taken at the workshop to review the progress and future development of EMSS. We will also work closely with the EC and EASA in the development of ECCAIRS2, running a safety recommendation workshop and in addressing the recommendations in the evaluation study on Regulation 996/2010.

We will continue to reinforce the public and industry visibility of ENCASIA to provide confidence in the ability of our Member and Observer States to work together to conduct an effective, independent safety investigation. To this end, we will endeavour to ensure that ENCASIA is represented at relevant safety investigation forums and, through our members, contribute to the work of ICAO in developing procedures, standards and recommended practices. As part of our reach-out activities, we will continue to assist other European transport modes in developing their own organisations for mutual support, share our experience and processes developed by ENCASIA with other SIAs and, where we have spare capacity, invite representatives from other European SIAs to attend our training.

APPENDICES

Appendix 1:

ENCASIA 2018 Work Programme

The 2018 ENCASIA Annual Work Programme included the following actions:

Working Group 1: Management of Communication. The objectives of Wg1 are to maintain the ENCASIA public and restricted websites; to increase public awareness of ENCASIA activities; and to maintain updated contact lists that could be used to support mutual support activities. The restricted website (Drupal) will be further developed to contain a comprehensive repository of investigation tools, processes, and examples of Best Practice and reports that will be readily available to SIAs. Belgium, France, Hungary, Portugal, Romania, UK and the EC (who provide IT support and coordination) are members of this group. This group is chaired by the Belgium Safety Investigation Authority.

Working Group 2: Cooperation. The objectives of Wg2 are to maintain, update and share the inventory of Best/Good practice for Safety Investigation Authorities in Europe; prepare processes that Safety Investigation Authorities might use during an investigation into a major or complex aircraft accident; maintenance of the practical guide for investigators and the leaflet for victims and their relatives that facilitates their understanding of the role and the different phases of a safety investigation, and its relationship with other entities involved in dealing with the accident. France, Germany, Hungary, Italy, Romania, Sweden, the EC and EASA are members of this group. This group is chaired by the French Safety Investigation Authority.

Working Group 3: ENCASIA Mutual Support System (EMSS). The objectives of Wg3 are to develop the ENCASIA Mutual Support System (EMSS); organise and run in-country exercises to allow Safety Investigation Authorities to exercise and test their National Plans to manage and organise a safety investigation of a major or complex civil aircraft accident. Finland, France, Germany, Hungary, Iceland, Luxembourg, Italy, Romania, Sweden, the UK and the EC are members of this group. This group is chaired by the UK Safety Investigation Authority.

Working Group 4: Planning and Resources. The objectives of Wg4 are to undertake the financial, planning and logistical activities required to support the ENCASIA Work Programme; and to coordinate the ENCASIA training activities. Belgium, France, Luxembourg, the UK and the EC are members of this group. This group is chaired by the French Safety Investigation Authority.

Working Group 5: Peer Reviews. The objective of Wg5 is to develop and implement the Peer Review programme to help authorities enhance their investigating capabilities. The aim is to complete Phase 1 of the Peer Reviews during 2019 before starting to plan Phase 2. Belgium, France, Germany, Iceland, Italy, the UK, and the EC are members of this group. This group is chaired by the Germany Safety Investigation Authority.

Working Group 6: Safety Recommendations. The objectives of Wg6 are the consistent operation of the Safety Recommendations Database by all Safety Investigation Authorities with the progressive identification of safety recommendations of Union-wide relevance; provide guidelines on common procedures to be used in the Safety Recommendation process; analysis of the Safety Recommendation database; represent ENCASIA in the development of ECCAIRS; represent ENCASIA at the ECCAIRS steering board, steering committee and EASA Network of Analysts. France, Ireland, Germany, Italy, Romania, Slovenia, Sweden, UK, EASA, and the EC are members of this group. This group is chaired by the Italian Safety Investigation Authority.

Appendix 2

List of 2018 Fatal Accidents involving commercial activities

The Aviation Safety Network database¹⁰ showed that during 2018 there were 15 fatal accidents involving aircraft with a minimum capacity of 14 passengers that resulted in 556 fatalities. Three of the accidents involved cargo flights and 12 were passenger flights. Three of the 15 accident airplanes were operated by air carriers subject to an operating ban within the EU.

Date	Location	Aircraft type	Air carrier	Number of fatalities
11 February	Near Stepanovskoye, Russia	Antonov AN-148-100B	Saratov Airlines	71
18 February	Northwest of Yasuj Airport, Iran	ATR 72-212	Iran Aseman Airlines	66
12 March	Kathmandu Tribhuvan Airport, Nepal	DHC-8-402Q Dash 8	US-Bangla Airlines	51
17 April	Northwest of Philadelphia after departure from New York La Guardia Airport, USA	Boeing 737-7H4	Southwest Airlines	1
16 May	Simikot Pass, Nepal	Cessna 208B Grand Caravan	Makalu Air	2
18 May	Near Havana José Martí International Airport, Cuba	Boeing 737-201	Global Air Cubana de Aviacion	112
5 June	Elephant Hill, Aberdare mountain range, northwest of Njabini, Kenya	Cessna 206B Grand Caravan	Fly Sax	10
24 June	Near Souguéta, Kindia, Guinea	Let L-410UVP	Eagle Air (Guinea)	4
10 July	Near Pretoria-Wonderboom Airport, South Africa	Convair CV-340	Rovos Air	1
4 August	Southwest of Piz Segnas,	Junkers JU-52	Ju-Air	20

¹⁰ www.aviation-safety.net/statistics/2018

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Date	Location	Aircraft type	Air carrier	Number of fatalities
	Switzerland			
9 September	Near Yirol Airport, South Sudan	Let L-410UVP	Slaver Company	20
28 September	Chuuk/Weno International Airport, Micronesia	Boeing 737-8BK	Air Niugini	1
29 October	Off Tanjung Bungin, Indonesia	Boeing 737 MAX 8	Lion Air	189
9 November	Georgetown-Cheddi Jagan international Airport, Guyana	Boeing 757-23N	Fly Jamaica Airways	1
20 December	Near Kinshasa-N'Djili International Airport, Democratic Republic Congo	Antonov An-26B	Gomair	7

Note: The accident which occurred on 11 April 2018 involving an Algerian Air Force IL-76 transport plane with 257 fatalities (army personnel and family members) was not included in this table because it was a military transport aircraft.

-END-