

European Society of Air Safety Investigators NEWSLETTER

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SUMMER 2017

EDITORIAL

Dear ESASI Members,

It was a pleasure seeing again many of you last April in Ljubljana for our Regional seminar. We thank again our Slovenian hosts for their warm welcome and their invaluable support in the organization of the seminar. Your executive Committee will do its best to keep you informed on a regular basis on safety investigation matters in Europe and overseas. Since our Members' meeting, we now have a Twitter account managed by Matt Greaves. We will endeavor to use it for specific news and events.

This newsletter summarizes the latest ESASI seminar. Your remarks conveyed both verbally and via the feedback forms will greatly help us to prepare the next seminars. We took note of further expanding to students in order to better associate them in our events. Regarding the ESASI website, our aim is also to experiment a forum, which could be a platform to share ideas and subjects of interest in relation with safety investigations.

We also included the report of our representatives, Rob Carter and Thorkell Agustsson who participated to the ISASI International Council Meeting held on 5 May 2017 in Herndon, Virginia (USA).

Do not hesitate to contact your committee members should you have any questions.

We look forward to seeing you again for our next Members' meeting, which will be held on Wednesday 23 August 2017 in San Diego.

Olivier Ferrante, ESASI President

ESASI Committee



Olivier Ferrante
President



Rob Carter
European Councillor



Matt Greaves
Treasurer



Steve Hull Secretary



Brian McDermid
Technical Committee



Thorkell Agustsson
Committee Member

Summary of the Seminar

On 19-20 April 2017, ESASI held its annual seminar in Ljubljana (Slovenia). We had 109 participants mainly from Europe, but also from other societies such as ASIASASI and MENASASI.



There were over 20 presentations on a wide range of safety topics, of a very high standard. Almost all presentations were made available on the restricted webpages of the ESASI website. If you need the login and password to access it, please contact either Steve Hull or Olivier Ferrante.



The delegates were welcomed by Toni Stojčevski, the head of the safety investigation authority of Slovenia. During his keynote address, Alojz Krapež, the Head of the Aviation Division of the Ministry of Infrastructure, highlighted the important role that Slovenia has in the European Transport system. He also conveyed the support from the Commissioner for Transport, Mrs. Violeta Bulc, who is also

from Slovenia and who has been a strong advocate for the safe development of civil aviation in Europe.

The technical program covered a number of current topics on safety investigations ranging from the regulatory framework, societal aspects and of course case studies addressing key safety matters and new investigation techniques.

Regulatory framework/EU cooperation

The presentations and discussions on the regulatory framework mainly focused on intra-European cooperation. In his opening address, Olivier Ferrante reminded the audience that the reactivation of ESASI in 2008 was related to the preparation of common European rules on investigation, which led to the adoption of Regulation (EU) No 996/2010 and the repeal of Directive 94/56/CE. ESASI was revived with the seminar organized in Cranfield in 2008, when Slovenia held the rotating presidency of the Council (from January to June 2008). France followed from July to December 2008. During that time, the 27 European accident investigation authorities (Croatia joined the EU in July 2014 as the 28th Member State) formed an informal network, which was called CEASIA (Council of European Aviation Safety Investigation Authorities) which led to the establishment of ENCASIA (European Network Civil Aviation Safety Investigation Authorities) enshrined through Regulation (EU) No 996/2010. It is not really a coincidence if nine years later, ESASI and Slovenia are again together to foster European cooperation on safety investigation matters!

Brian McDermid (AAIB UK) presented ENCASIA's achievements since 2011, in particular on the sharing of good/best practices, training, peer reviews, safety recommendation management, and family

assistance. The main priority is the establishment of the EMSS (ENCASIA Mutual Support System) as it is crucial to reinforce the European framework for mutual assistance to adequately deal with a major accident wherever it occurs in the European Union.



Job Smetlink (NLR/ECORYS) informed the seminar of the on-going evaluation that the European Commission launched as a part of its aviation strategy. This evaluation follows the review of the Regulation which was undertaken four years after its implementation. This review and its appendix that contains the result of a questionnaire are available on the Commission website (include links).

The evolution of the European landscape was also covered from the perspectives of EASA and an operator.

Alessandro Cometa (EASA) updated the seminar on the recent activities undertaken by EASA, in relation to the EPAS (European Plan for Aviation Safety).

Captain Ruslans Sabanovs (Safety Officer Nordica Airlines, Estonia) highlighted a number of challenges in the implementation of the Safety Management System within his newly-created airline that operates for various airlines in Europe.

Key points on societal aspects

The ESASI seminar also addressed the challenges of our changing societal environment through different angles. The

rise of social media as both a source of data and a source of potential controversies was discussed. Family expectations have kept growing and the interactions with other investigations, such as the judicial investigation, remain challenging albeit progress was made thanks to the new EU regulatory framework.

Ron Smits (Dutch Safety Board) presented the investigation survey of MH17 with focus on wreckage recovery as well as media and communication aspects. The political context was ubiquitous, in particular when negotiating the "export" of wreckage parts for reconstruction purposes.

Martine Del Bono (BEA) underlined the risks of overusing the term "transparency" in the field of communication in the context of safety investigations. It has triggered different expectations and interpretations from the perspectives of the media, the judicial authorities and the victim's families. She illustrated a number of challenges through the following cases: AF447 (2009), MH370 (2014), Mali (2014), Germanwings (2015) and Egyptair (2016). Her conclusion underlined the need of having communications strategies to reinforce relationship between the Investigation Authority, the victims' families, the press and the public.

Key points on case studies from Airlines, Manufacturers, and Investigation Authorities

During the presentations and the Q&A sessions, the boundaries between incidents, incidents serious and accident addressed. This was notably the case during the ad-hoc workshop that Johann Reuss (BFU) kicked off with his presentation "Investigating fumes in cockpit/cabin accidents". It was followed by an open discussion moderated by Rob Carter (AAIB) on this topic. The exchanges showed the difficulties sometimes differentiate to

between flight safety and occupational health in these practical cases of fume/smoke in the cockpit or in cabins.

The following case studies addressed systemic aspects:

- Adrian Burrows & Stuart Hawkins (AAIB) presented a loss of control event that followed a lightning strike.
 The investigation focused on the modes of autopilot disengagement.
- Gunnar Flovenz (Bluebird Cargo) provided the perspective of a small operator in a ramp event investigated in the context of their SMS.
- In the case of an ELT fire investigation involving a B787 in Heathrow, Lisa Fitzsimons (AAIB) pointed out some limits in the risk assessment of the certification processes (TSO / ELT TSO / CS-25 aircraft) when it has considered the parts independently of each other without re-assessing the integrated system.

The presenters also shared the investigation methods that they used.

Investigation techniques/tools

Through case studies and conceptual presentations, the seminar also enabled delegates to be updated on investigation methods and techniques:

- Thomas Wang (ASC Taiwan) and Dr Wen-Chin Li (Cranfield) used the investigation of the accident of the ATR 72 in Taiwan (23/07/2014) in Penghu to illustrate the usefulness of an eye-tracking system in the cockpit.
- Camille Burban (Clockwork Research) introduced the role of biomathematical models when investigating fatigue.

- Denis Cadoux (Airbus) presented a deidentified case-study to put forth the benefits of using manufacturer's advanced simulation models. His example illustrated the usefulness of engineering simulation tools that can quantify the wake vortex experienced by the aircraft during final approach.
- Frédéric Walbrou and Angélique Lefèvre (BEA) demonstrated "limits of analysing Internet data from home". They explained data retrieval with the example of Flightradar24, its utility in an investigation as well as limitations in their interpretation. They compared Internet data with onboard recorded data for both general aviation and public transport cases and noted differences in precision between ADS-B and MLAT (multilateration).
- Stuart Gilmartin (Gilmartin Global Consultancy) presented two RPAS (Remotely Piloted Aircraft System) investigations in military operations. In addition to the telemetry data received on the ground, encrypted data are recorded on board which requires contacting the aircraft manufacturer for data recovery.
- Roberto Porron Alarcon (Airbus military) presented various investigations of military aircraft accidents with focus on research techniques like the analyses of engine computer units, alarm panel light bulbs, analog instrument needles...

Stuart Oliver (DAIB) & Jim Roberts (Boeing military) summarized the topics discussed during the Military Air Safety Investigators (MASI) meeting held the day before, including the difficulties encountered during international military investigations.

MASI (Military Air Safety Investigators)

Prior to the plenary seminar, ESASI facilitated the meeting of Military investigators (34 participants) on 18 April 2017. ESASI has been supporting the organization of military tutorials these past years and will continue to do so for the tutorial in San Diego in August.



Final words

The ESASI Committee recognises the outstanding involvement of **Toni Stojčevski**'s team, in particular the support provided by **Karmen Potočar** for her crucial role during the months leading to this seminar and during the event itself. Also special thanks for **Said**'s pictures, which are available on the ESASI website.

Summary of the Members' meeting

After the first day of the seminar, ESASI held its members' meeting. The following points were covered:

- The new ESASI committee was introduced;
- ESASI's financial situation is sound mainly thanks to the benefits generated by ISASI 2015 in Augsburg;
- It was agreed to continue ESASI seminars in the format of a two day meeting on a yearly basis centered on aviation. The idea of synergies with other modes could be envisaged as a discussion theme;

- ESASI will continue to facilitate back to back meetings with the military network;
- It was offered to bid for an ISASI conference in 2020 but this has changed in the meantime (see the report of the May ISASI Council Meeting);
- The ESASI twitter account was launched on 18 April 2017.

There were a number of other points/suggestions such as:

- To support students;
- To enrich the ESASI Website with a discussion forum;
- To issue more frequent newsletters;
- To reinforce our cooperation with ISASI and other Regional societies (MENASASI).

ESASI's model consists of organizing yearly regional seminars at affordable prices scheduled on two days in order to attract many European delegates. This is possible thanks to the benefits of our European ISASI seminars, especially the one in Augsburg which greatly helped our financial situation. Therefore, to continue promoting aviation safety throughout Europe, in particular for individuals who cannot afford the full week of an ISASI conference, ESASI needs to generate positive cash flow from ISASI seminars organized in Europe on a regular basis. The frequency of once every five years was deemed achievable. This approach completely in line with the spirit of ISASI.

Finally, it was decided to organize the next ESASI seminar in Latvia (Riga/Jurmala) in May 2018. The exact location and dates will be confirmed soon.

ICM report

On Friday 5 May 2017, ISASI held its International Council Meeting (ICM) in Herndon, Virginia. The ICM meets twice a year: in May after the traditional mid-Atlantic dinner and the Sunday prior to the annual ISASI seminar. For this ICM meeting, ESASI was represented by Robert Carter, the European Councilor and by Thorkell Agustsson, the chair of ISASI 2016 and ESASI committee member.

The highlight of this meeting was the organization of ISASI 2019. Two proposals were presented for the ISASI 2019 seminar: The first proposal was Montreal (Canada) and second The Hague (The Netherlands). Both proposals included a financial overview and a conference pitch with Q&A. After a long debate between the two proposals the ISASI Council voted to accept the Dutch bid for ISASI 2019 in The Hague. The voting was in favor of the Dutch proposal. This was mainly due to the cooperation between the Dutch Safety Board, Dutch ALPA and Delft University of Technology for the willingness to organize the seminar. As KLM will celebrate its 100th anniversary in 2019 this will draw attention to flight safety and sponsorships and as a consequence a larger volume of sponsorships from the Netherlands can be expected. The ICM proposed to schedule ISASI 2020 in

Montreal. Due to some time constraints, the Dutch team could not really brief ESASI and merely asked for moral support. Because of these difficulties of coordination, the ESASI abstained to vote.

The ICM applauded ESASI for two excellent seminars, both in Augsburg, Germany and in Reykjavik, Iceland. The ICM also urged ESASI to become involved in the Dutch initiative.

The project of ISASI 2019 in The Hague came as a surprise. Nevertheless, the ESASI committee and the Dutch team will endeavor to unite forces to transform ISASI 2019 into a European success. A small ad-hoc ESASI seminar should still be set up in spring 2019 to maintain our momentum in a format that will not compete with ISASI 2019. The ICM proposed to schedule ISASI 2020 in Montreal.

During ICM it was discussed that new memberships, both individual and corporate, are very welcome. To keep ISASI a healthy organization it is necessary to find new members and to keep memberships. All the regional chapters were asked to follow-up on missing/nonpaying members.

The rest of the ICM was devoted to the usual budgetary updates and a review of the activities of the various societies and working groups.

The International Society of Air Safety Investigators (ISASI) will hold their 48th annual seminar at the Sheraton San Diego Hotel & Marina from August 22 - 24, 2017. This year's theme is:



