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# **ASSEMBLY — 38TH SESSION**

#### TECHNICAL COMMISSION

Agenda Item 29: Aviation Safety – Monitoring and Analysis

### THE EUROPEAN STRATEGIC SAFETY INITIATIVE

(Presented by Lithuania on behalf of the European Union and its Member States<sup>1</sup> and the other Member States of the European Civil Aviation Conference<sup>2</sup>; and by EUROCONTROL)

#### **EXECUTIVE SUMMARY**

The European Strategic Safety Initiative (ESSI) was launched in 2006 and is now a mature initiative. It is a voluntary and privately funded safety partnership aimed at further enhancing safety in Europe, and for the European citizen worldwide. Facilitated and administered, but not owned, by the European Aviation Safety Agency (EASA), ESSI brings together European aviation authorities and the industry, and international partners like ICAO and the FAA, and has since 2010 been managed in compliance with ISO 9001:2008 requirements. It contributes to the development and implementation of the European Aviation Safety Plan, and has produced several safety management and safety promotion documents.

#### 1. INTRODUCTION

1.1 The European Strategic Safety Initiative (ESSI)<sup>3</sup> was launched in April 2006 by EASA as the successor to the Joint Aviation Safety Initiative of the Joint Aviation Authorities. Its inception was described in WP/195 presented to the 36th Session of the ICAO Assembly, and a report on its progress was presented in WP/198 to the subsequent Session in 2010. The present information paper focuses on ESSI's activities and achievements over the past three years.

<sup>&</sup>lt;sup>1</sup> Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

<sup>&</sup>lt;sup>2</sup> Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

<sup>&</sup>lt;sup>3</sup> http://www.easa.eu.int/essi/.

- ESSI has throughout its existence redefined and revitalised cooperative safety efforts in Europe with a new objective, a new regulator-industry partnership approach and a new process. It is now a mature initiative, working as a voluntary and privately funded safety partnership to further enhance safety in Europe and for the European citizen worldwide. ESSI is facilitated but not owned by EASA, and its participants are drawn from the EASA and ECAC States, bringing together European aviation authorities and the industry, and international partners such as ICAO and the US FAA. More than 150 civil and military organisations today take part in the ESSI, with participants coming mainly from the civil side.
- 1.3 ESSI has maintained and further developed its cooperation with the US Commercial Aviation Safety Team (CAST) and with other major safety initiatives worldwide, such as the International Helicopter Safety Team (IHST) and the US General Aviation Joint Steering Committee (GA JSC), as well as with ICAO under both the Cooperative Development of Operational Safety and Continuing Airworthiness Programme (COSCAP) and the Regional Aviation Safety Group Europe (RASG-EUR) initiatives.
- 1.4 Administered by EASA, ESSI has since 2010 been managed in compliance with ISO 9001:2008 requirements.
- 1.5 ESSI continues to have three components: the European Commercial Aviation Safety Team (ECAST), the European Helicopter Safety Team (EHEST) and the European General Aviation Safety Team (EGAST). It contributes to the development and implementation of the European Aviation Safety Plan, and has produced several safety management and safety promotion documents.

### 2. EUROPEAN COMMERCIAL AVIATION SAFETY TEAM

- 2.1 ECAST<sup>4</sup> is the fixed-wing Commercial Air Transport (CAT) component of the ESSI. Co-chaired by EASA and IATA, ECAST brings together more than 75 organisations and cooperates with the US CAST and ICAO COSCAP programmes, and with the ICAO RASG-EUR initiative. Its activities mainly address safety analysis, Safety Management Systems (SMS) and safety culture, runway safety, ground safety, Flight Data Monitoring (FDM) and prospective safety.
- 2.2 ECAST has identified best practices regarding SMS organisation and produced guidance on safety culture assessment, hazard identification and risk management. The Airlines Risk Management Solutions Working Group, a team associated to ECAST, has published an innovative operational risk assessment method (called ARMS) for airlines and other aviation organisations. Risk assessment is one of the most challenging part of risk management.
- 2.3 ECAST sponsored the 2nd edition of the European Action Plan for the Prevention of Runway Incursions, published by EUROCONTROL. A wide array of stakeholders in Europe and worldwide are also addressing runway excursions, and the first edition of the European Action Plan for the Prevention of Runway Excursions was published in January 2013. This was developed by a working group led by EUROCONTROL with support from ECAST.

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<sup>4</sup> http://www.easa.eu.int/essi/ecast

- 2.4 ECAST has also established a Ground Safety Working Group, the deliverables from which include a proposal for a Ground Safety Training Syllabus, research on Human Factors in ramp safety, and Ramp Resource Management training syllabus and course material. The Working Group has also contributed to the first edition of the IATA Ground Operations Manual, released in 2012, and encourages the use of the IATA ground products family: the Airport Handling Manual, the IATA Safety Audit programme for Ground Operations (ISAGO), the IATA Ground Operations Manual, and the Ground Damage Data Base.
- 2.5 The European Operators FDM Forum is voluntary initiative developed under the aegis of ECAST. It aims to assist operators in the implementation of an FDM programme and in drawing safety benefits from it by sharing best practices. Participation has been expanded to European and non-European aircraft operators, associations, flight crew associations, aircraft manufacturers, research and educational bodies, and aviation regulators. The forum organised two successful Conferences in Cologne in 2012 and 2013.
- 2.6 EASA has cooperated with the Future Aviation Safety Team, a group associated with both ECAST and US CAST, on prospective safety (dealing today with the risks of tomorrow). In 2012, a project team led by EASA published a *Methodology to Assess Future Risks*, as a deliverable of the Emerging Issues section of the European Aviation Safety Plan<sup>5</sup>.

### 3. EUROPEAN HELICOPTER SAFETY TEAM (EHEST)

- 3.1 EHEST<sup>6</sup> is the helicopter team of ESSI, and the European component of the International Helicopter Safety Team. (IHST). It plays an essential role in the development of the helicopter section of the European Aviation Safety Plan.
- 3.2 The world accident rate for civil helicopters is still much greater than that of fixed wing aircraft. Although few exposure data are available for certain regions or certain types of operations, the accident rate for civil helicopters can be estimated at around 0.80 per 100 000 hours.
- 3.3 IHST was established in the US in 2006 with the objective of achieving an 80% reduction in the accident rate by 2016 for civil and military operations. EHEST was established at the end of 2006 to address the specificities of the safety of helicopter operations in Europe. It brings together helicopter and component manufacturers, operators, regulators, helicopter and pilots associations, research institutes, accident investigation boards and some military operators, from across Europe. Co-chaired by EASA, the European Helicopter Operators Committee (EHOC) and Eurocopter, it brings together around 50 organisations to address a broad spectrum of helicopter operations, from Commercial Air Transport to Specialised Operations (Arial Work) and General Aviation, and flight training activities.
- 3.4 EHEST has an analysis team (the European Helicopter Safety Analysis Team), an implementation team (the European Helicopter Safety Implementation Team) organised in different sub-teams specialised in training, SMS and operations, technology, maintenance and regulation, and a communication team. It published in 2010 an analysis report of 311 helicopter accidents in Europe between 2000 and 2005, on the basis of which five implementation sub-teams were formed to address training, SMS and operations, technology, maintenance and regulation aspects.

<sup>&</sup>lt;sup>5</sup> http://www.easa.eu.int/sms

<sup>&</sup>lt;sup>6</sup> http://www.easa.eu.int/essi/ehest

3.5 EHEST deliverables include a Safety Management Toolkit based on the European Ops Implementing Rules and Acceptable Means of Compliance on Management Systems published in 2012, and several safety leaflets and videos on high priority safety topics. These include Loss of Control in Degraded Visual Environment, Vortex Ring State, Loss of Tail Rotor Effectiveness Static and Dynamic Rollover, pre-flight risk assessment, helicopter airmanship, off-airfield landing sites, pilot decision making, risk assessment in training, auto-rotation in training, and passenger management. The EHSIT has also published a Maintenance Toolkit in cooperation with the IHST, and is currently developing a Flight Crew Training Instructor Manual.

# 4. EUROPEAN GENERAL AVIATION SAFETY TEAM (EGAST)

- 4.1 Launched in late 2007, EGAST<sup>7</sup> is the third ESSI team, and addresses fixed-wing General Aviation (GA). In Europe, as in other regions of the world, this is a dispersed community, with sporting and recreational aviation embracing a wide spectrum of activities, ranging from powered flying, ballooning and gliding to more recently invented pursuits such as sky-surfing, micro light flying and paragliding.
- 4.2 Building on existing initiatives taken at the national level or within GA manufacturer, organisations and associations, EGAST is co-chaired by EASA, the European Airshow Council (EAC) and the European Council for General Aviation Support (ECOGAS). It encompasses more than 50 organisations and cooperates at the international level with the General Aviation Joint Steering Committee co-chaired by the FAA and with the Aircraft Owners and Pilots Association's (AOPA) Air Safety Foundation.
- 4.3 EGAST's objective is to further improve GA safety through safety promotion, education and the sharing of good practices. It is organised around four activities: data analysis at European level, safety promotion, interface with research, and communication.
- 4.4 EGAST identifies, develops and shares safety leaflets and videos on risk awareness and decision making enhancement for the GA pilot and the GA community in Europe. Recent publications include videos on Loss of Control, human error, and the use of parachutes, and safety leaflets have been issued on collision avoidance, pilot decision making and weather anticipation, navigation in day VFR using advanced technologies, and stall/spin Loss of Control. In addition, safety promotion material (including posters) from European National Aviation Authorities and GA associations are made available to the community through the EGAST website.

# 5. CONCLUSION

5.1 The Assembly is invited to take note of the development of the European Strategic Safety Initiative.

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<sup>&</sup>lt;sup>7</sup> http://www.easa.eu.int/essi/egast