

EUROCONTROL SAFETY UPDATE

EUROCONTROL SAFETY TEAM AND SUBGROUPS

The EUROCONTROL Safety Team (comprised of ANSP safety directors and managers, as well as EUROCONTROL safety specialists) and associated subgroups meet regularly each year. This update gives a flavour of the activities, including supplementary webinars.

Just Culture Task Force (JC TF) Update

The Just Culture Task Force (JC TF) promotes debate and discussion on issues related to safety and justice, with a wide membership from aviation, rail, maritime, and healthcare. It supports dialogue between safety and judicial experts and develops guidance in support of the implementation and dissemination of just culture.

Just culture task force webinars

The JC TF hosted four webinars, attracting around 1,500 participants, in cooperation with ICAO, European Union Agency for Railway (ERA) and University of Messina. These are available to view as follows.

- Webinar 1: Just Culture in Practice (27 October 2020). See <https://youtu.be/ruZ-668f8QU>
- Webinar 2: Just Culture: Front-Line Operators Perspective (28 October 2020). See https://youtu.be/XrrKm-6Fu_l
- Webinar 3: The Organisation's Point of View (29 October 2020). See <https://youtu.be/4fzG4BywU70>
- Webinar 4: Just Culture in Healthcare (17 November 2020). See <https://youtu.be/LiGy8VydMbc>

JCTF meetings in 2021 will be held in June and November. There is also an on-line version of the Just Culture prosecutor expert course.

Just culture manifesto now online

The EUROCONTROL Just Culture Manifesto was published in November

2020 to articulate a vision of just culture that connects with people from all industrial sectors, around the world. The manifesto speaks to people in all roles – front line, support, specialists, management, both in private industry, government organisations and departments, and the justice system. See this issue of *HindSight*.

First list of ops experts (pilots and controllers) for the judiciary

For a number of years, the EUROCONTROL Network Management Directorate, through its SAF Unit, has been running the Prosecutor Expert Course (PEC) together with IFATCA (International Federation of Air Traffic Controllers' Associations) and the ECA (European Cockpit Association). Active pilots and ATCOs from the EUROCONTROL Member States participate in a 2½ days course with criminal prosecutors to prepare as safety experts that would be available to assist any national prosecutor in cases of aviation incidents and accidents. We have been assisted in this endeavour by a group of senior judiciary members (judges and prosecutors) from various Member States.

The objective of the course is to prepare such experts with the appropriate knowledge and attitudes to be able to help prosecutors in deciding whether an incident that has come to their attention is a potential criminal offence or not and therefore

whether to start criminal proceedings against the relevant aviation professionals.

This course has been created at the initiative of the JC TF. The JC TF has successfully promoted the concepts of just culture for many years and has several deliverables, one of the most successful being the above-mentioned Prosecutor Expert Course.

The course and its proceedings are also in accordance with the EUROCONTROL Model for a Policy regarding criminal investigation and prosecution of aviation and railway incidents and accidents, as unanimously endorsed by the Provisional Council in 2018.

The final objective is to have a list of such experts endorsed by EUROCONTROL and made available to the judicial authorities from the Member States. It is the decision and choice of any prosecutor to avail of an expert from the list, thus leaving them the freedom of action, in the full respect of the independence of the justice system.

The first list has now been confirmed and validated, based on criteria that were agreed within the JC TF and accepted by IFATCA and ECA. The list comprises 20 ATCOs and 13 pilots, who have undertaken an initial and an advanced course, and participated in annual just culture events.

Safety Human Performance Sub-Group (SHP-SG) Update

The SHP-SG is a forum to support safety and human performance improvement in the provision of air navigation services. The SHP-SG meets twice a year. SHP-SG also organised a series of five webinars on safety and HF master classes to promote systems thinking in addressing occurrence investigation. The five events, led by Nippin Anand (former master mariner), were attended by over 1,000 participants.

- Webinar 1: The three aspects of a learning organisation (14 September 2020) (dedicated session to C-suite level leadership). It highlighted three key aspects of the Costa Concordia accident that ran through the entire series of webinars: (1) Alternative perspectives (2) Situated expertise and (3) Meaningful compliance.
- Webinar 2: Introduction to the Costa Concordia maritime accident (24 September 2020).
- Webinar 3: Human and organisational factors in safety-critical operations (13 November 2020). This session provided a deeper understanding of teamwork, leadership, and team dynamics in safety-critical operations.
- Webinar 4: Managing the unexpected (18 Jan 2021). This session examined the events during and post-accident to understand the role of plans and procedures. The participants appreciated the role of procedures and plans in the face of uncertainty and discussed issues that were becoming increasingly relevant to businesses and society at large in a post-COVID world.
- Webinar 5: Discussions and debriefs (1 Feb 2021). The purpose of this last webinar was to bring together the key learning outcomes and create space for discussions and debriefing for the entire series.

New Critical Stress Incidents Management (CISM) deliverables

The following Critical Stress Incidents Management (CISM) deliverables have been released:

- Critical Incident Stress Management - Implementation Quick Guide, August 2020.
- Critical Incident Stress Management: Implementation Guidelines, February 2021.
- Implementation of a CISM Programme Video Clip, November 2020.
- CISM Intervention Video Clip, November 2020.

Further reading

SKYbrary (2021). *Critical incident stress management in ATM* (including video animations for Implementation of a CISM Programme and CISM intervention). https://www.skybrary.aero/index.php/Critical_Incident_Stress_Management_in_ATM

EUROCONTROL (2020). *EUROCONTROL critical incident stress management: Implementation quick guide*: <https://www.skybrary.aero/bookshelf/books/5882.pdf>

EUROCONTROL (2021). *Critical incident stress management: CISM implementation guidelines*. <https://www.skybrary.aero/bookshelf/books/951.pdf>

EUROCONTROL (2021). *Team resource management: Guidelines for the implementation and enhancement of TRM*. <https://www.skybrary.aero/bookshelf/books/6049.pdf>

Webinar on patterns in how people think and work

A EUROCONTROL white paper on *Patterns in how people think and work* was supported by a webinar on the importance of the discovery of patterns for understanding complex adaptive systems. The webinar, on 25 March 2021, was provided by David D. Woods (Professor in Integrated Systems Engineering at the Ohio State University). David has developed and advanced the foundations and practice of cognitive systems engineering since its origins in the aftermath of the Three Mile Island accident in nuclear power. This field

combines concepts and techniques from cognitive psychology, computer science, and social sciences to study how people cope with complexity. His studies have focused on human systems in time-pressured situations such as critical care medicine, aviation, space missions, intelligence analysis, and crisis management. He designs new systems to help people find meaning in large data fields when they are under pressure to diagnose anomalies and re-plan activities. His latest work is to model and measure the adaptive capacities of organisations and distributed systems to determine how they are resilient and if they are becoming too brittle in the face of change. The webinar is available at <https://youtu.be/t81eUI3vtWI>

Webinar on mental flexibility for ATCOs

A webinar was held on 29 April 2021 on mental flexibility for ATCOs, particularly on the balance between phases where the demands are high and where demands are low. Markus Flemming, a former professional Ice-Hockey Goalie and Psychologist, has coached the Eisbären Berlin (Ice hockey Club Berlin) since 2007 and is supporting numerous German National Teams, including the basketball team, the field hockey team, the handball team and the ice-hockey team, which won the silver medal in the 2018 Olympic Games in Pyeongchang, South-Korea. Markus has been with the DFS since almost 10 years and developed a program with Jörg Leonhardt called: mental flexibility for ATCO's. Markus spoke in this webinar about the balance between phases where the demands are high and where demands are low. He gave insights in how professional sport teams cope with the Covid constraints and prepare under difficult circumstances. The webinar is available at <https://youtu.be/eo8e17-phxw>

Safety Management Tools User Group (SMTUG) Update

This subgroup (and its Change Control Board – CCB) manages the development and use of safety tools such as eTOKAI (Tool Kit for ATM Occurrence Investigation), RAT (Risk Analysis Tool), APF (Aerospace Performance Factor) and ASMT (Automatic Safety Monitoring Tool). SMTUG/CCB has released eTOKAI 3.0 (December 2020) and 3.1 (March 2021).

Operational Safety Group (SAFOPS) Update

The Operational Safety Group (SAFOPS) is a group within the framework of the EUROCONTROL Network Manager (NM) cooperative decision-making processes. SAFOPS provides support in driving operational safety improvements and in fulfilling the NM task specified in EU 2019/123 from 24 January 2019 to *“identify operational safety hazards at network level in cooperation with operational stakeholders and assess the associated network safety risk and report them to the Agency”*.

Key risk areas deliverables:

- Supported NM collaborative process for identification of COVID-19-related hazards/ safety issues. The resulting collaborative example list aggregated the collective knowledge on the subject and was widely used by many organisations in Europe and globally.
- An annual Top 5 review process was performed based on data gathering and analysis workshops with 17 ANSPs. The identified top 5 priorities are: 1) controller blind spot; 2) flight without transponder or with a dysfunctional one; (3) ACAS RA not followed; 4) controller detection of potential RWY conflict; 5) airspace infringement.
- The safety functions map barrier model (tool to process the Top 5 data and support the prioritisation process) was reviewed, updated and the report ‘SAFMAP Models’ was published.
- Five dedicated safety surveys were performed on issues raised by the

NM operational safety stakeholders and 5 briefings were issued on: (1) Four-digit ATC callsigns; (2) one runway, one frequency, one language implementation; (3) return to service after COVID; (4) tactile button use; (5) runway incursion classification.

- The SKYbrary project management included facilitation, maintenance, content management and launching the modernisation project for the SKYbrary platform. SKYbrary kept its position as the most popular aviation safety knowledge base in the world and reached more than 6 million users for the year.
- Five SKYclips promoting specific safety aspects were developed and published: (1) En-route wake encounter; (2) Emergency frequency (121.5, GUARD); (3) Airspace infringement and aeronautical information; (4) Airspace infringement; (5) Shortcuts and unstable approaches.

Further reading

SKYbrary (2021). SKYclips. <https://www.skybrary.aero/index.php/Solutions:SKYclips>

SKYbrary (2021). EUROCONTROL top 5 operational safety priorities. https://www.skybrary.aero/index.php/EUROCONTROL_TOP_5_Operational_Safety_Priorities

CANSO and EUROCONTROL Partner on Safety

An agreement with CANSO European Safety Directors Group (CESAF) was signed in February 2021 on the scope and forms of cooperation. The cooperation between CESAF and the EUROCONTROL Safety Team may comprise various types of activities, including but not limited to:

- exchanging safety information
- sharing expertise and best practices
- cross-participation in working groups, where appropriate and in accordance with the respective rules of procedure of each other's organisation
- increasing efficiency by ensuring that the EUROCONTROL Safety Team and CESAF aim at a coordinated work plan to reduce duplication of effort
- developing joint positions and/or recommendations, and
- coordinated messaging to third parties, including (but not limited to) regulatory and legislative authorities, vendors and the media.

Read more at <https://canso.org/canso-and-eurocontrol-partner-on-safety/>

CARMA (Compliance and Regulation Management Application) User Group (CARMA UG) Update

Compliance and Regulation Management Application User Group (CARMA UG) (and its Change Control Board) is a network of users. It aims to ensure that the application is continuously reviewed and improved and fosters the harmonised use of the resource management applications. So far in 2021, CARMA UG/CCB has released CARMA Release 2.0.