

Supporting safety culture at MUAC with 'EUROSS'!

By Susanne Lanzerstorfer, Corina Buruiana, APAC GmbH

You are driving home and are in a hurry. It's quite late and the road is empty. But there are all these cross-roads with traffic lights, a safety measure which makes sense during rush hours when there is a lot of traffic...

You stop and obey the traffic rules, but you know that others simply look both ways to make sure it's safe, and then drive on. Since flashing amber lights would work better outside of rush hours, you're going to talk to the city planner about this. You are alone on the road and no one would know if you drove through the occasional red light... But you respect the rules. Why? Because you would know you were driving unsafely and unpredictably otherwise. You follow the safety rules not only because you must but because long ago they have became part of you and how you drive.

Everyone is expected to adhere to the rules in aviation and ATCOs, in particular, have quite a lot of safety rules and safeguards to follow.

But there is a difference between obeying because you must and between following the rules because you see why it's the safe and right thing to do. It's the difference between being part of a safety culture and a safety culture being a part of you – and the latter is the approach EUROSS (EUrocontrol Routine Observation Safety Survey) aims to promote.

This article outlines the main features of the EUROSS project based on interviews with the Project Owner, Mr Ralf Hölscher and with Mr Marco Kuelgen, one of the observers who has been involved in the Pilot Study, both of whom are from EUROCONTROL Maastricht where the Pilot Study has been running.

A lot has been done at Maastricht UAC to improve safety (investigations, occurrence reporting, safety assessments, safety promotion activities, etc.). EUROSS complements such initiatives with an ATCO-centric view of how to improve the safety culture: ANSPs need to make sure that all ATCOs are aware of their role and responsibilities in maintaining and improving safety. For example, they could try to improve themselves by observing best practices. According to Mr Hölscher, even re-considering current practices and challenging certain rules which might be obsolete may be of value to ANSPs. For ATCOs, the added benefit is that safety is increased and they have a lower risk of facing an occurrence or incident.

Background and methodology:

Similar projects throughout the aviation community exist already, but EUROSS is tailored to the specific needs of the controllers at Eurocontrol Maastricht (MUAC - Maastricht Upper Area Control Centre). It is based on the international NOSS (Normal Operation Safety Survey) standard and on UK NATS' own version of D2D (Day to Day observations). The project is supported by EGATS (EUROCONTROL Guild of Air Traffic Services) and by the organisational psychology department of the University of Duisburg/Essen.



It is ATCOs themselves who developed EUROSS for ATCOs, in cooperation with the EUROCONTROL Human Factors group and the University of Duisburg-Essen. The latter contributed scientific knowledge and experience in this kind of project and Mr Hölscher added that they also acted as independent observers for work organisational aspects like coordination and communication. A specially designed observation sheet provided an easy-to-use framework / guide for Observers. To enhance the validity of the observations, a comparison was made to see whether pairs of two observers made similar observations (inter-rater reliability).

In practice, the working positions of a sector were observed in the OPS room for half an hour, during normal operations, by a team of 2 ATCOs and/or master students from the university specially trained for this purpose. The observed ATCOs participated in the project on a voluntary basis, and they could stop the observations at any point in time. The observers filled in the observation sheet which covered topics such as team interaction, working environment, information acquisition, and selected procedures.

Observation to avoid the need for Investigation

EUROSS is not a 'Big-Brother' exercise - it's an attempt to learn from ATCOs rather than just check whether they are doing anything wrong. The EUROSS pilot study benefited from an intensive communication campaign: announcements, posters, and especially personal communication. Even so, Mr Marco Kuelgen, based on his experience as an Observer, said that many ATCOs initially wondered what

EUROSS was really all about, but after further explanations the project was well received. As a result, most of the ATCOs who were approached for the Pilot Study were willing to be observed and afterwards were very positive about their experience.

The collected data is kept confidential and de-identified results form the basis for a final report and for feedback to the ATCOs. Mr Hölscher stressed that despite the natural tendency to note errors, EUROSS focuses on positive aspects by using a scoring system to rate observations from 1 (lowest score) to 6 (best score). The objective is not to investigate deviations from the norms and rules, but to promote a 'cross-fertilisation' of good practices and an atmosphere of mutual learning.

Mr Kuelgen noted that the rating scale supported observers towards identifying positive aspects and good practices. The observation sheet used by observers contains figures and values to describe the behavioural factors, but the results of the observation sessions need frequently interpretation by the project team. Mr Hölscher said that observations which, according to the existing procedures, may appear at first to be a poor practice, can, after interpretation, reveal that the related procedure actually needs to be reviewed...

Project Results and Outlook

The EUROSS Pilot Study is in its final stages. Although the full results were not available at the time this article was written, feedback so far has been positive from all parties concerned. The project team felt the study developed a valid and useful methodology, which

Susanne Lanzerstorfer



has more than 15 years of experience in the area of aviation safety and SES, thus possessing in-depth knowledge of all aspects involved in ATM. She has supported EUROCONTROL, NSAs and ANSPs in the successful completion of multiple projects related to aviation safety. Ms Lanzerstorfer is a General Manager of the 'Qualified Entity' APAC GesmbH and a member of several working groups related to ATM.

Corina Buruiana



has supported EUROCONTROL in tailoring SKYbrary to its users' needs, thus gaining insight into the knowledge interests of ATCOs.

was successfully tested. Feedback received from high-level management has also been very positive. The Head of Operations at MUAC, Mr Harald Matthes, expressed his appreciation for the fact that EUROSS has been developed from within the OPS team.

Mr Hölscher believes that EUROSS should be repeated in the future with the continued support of the University and extended to include other aspects such as OJT. The results of the Pilot Study will be presented to MUAC ATCOs and their feedback will be taken fully into account. EGATS intends to offer ATCOs a secure intranet forum as a place to share their views and learn from each other.

The EUROSS Pilot Study has helped to remind both controllers and management and the ATC community in general that they all have a common first priority: safety. The EUROSS has been an ATCO-centred project aiming to improve the safety culture among ATCOs with the help of ATCOs - truly a project by the ATCOs, for the ATCOs!