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Automatic Collection of Data

The EUROCONTROL and IFATCA view

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Bucharest

Dr Frederic Lieutaud

NMD/NOM/SAF-Unit



- ✓ Safety Management Tools can help reaching safety targets but need to be integrated into the SMS.
- ✓ The effectiveness of this integration relies on key elements of the SMS
 - scars from the past?
 - National culture
 - Safety culture level in organization
 - SMS processes robust and the use and confidentiality of safety data

In particular, balancing safety and accountabilities with respect to just culture principles remains essential.

Thus,

- ✓ **what measures should be implemented to get staff, unions, professional associations and high-level management confident to use such tools?**



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Background



Current status



Historical

*What is the history of the relations
and in particular wrt trust between
staff and management*

Cultural

*e.g. Where do you think you stand
between Japan and the Nordic States*

Safety culture measurement

What are the areas of improvement?

Review of SMS procedures

*Are there provisions that protect
individuals against biased decisions?*

Review of cases having raised conflicts

*What has gone wrong or that was
not foreseen by procedures rules and
internal regulations?*

Shared understanding

*What is punishment
When is punishment deserved?
How the decision to punish is
made?
By whom?*

Robust SMS procedures

*Including provisions that protect
individuals against biased decisions
analysis*

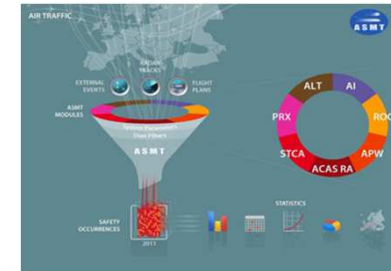
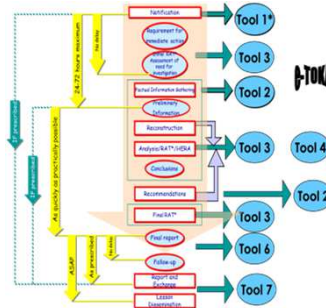
Adequate bodies set-up

*Bodies meant to overview the
application of the rules, procedures
and internal regulations*

*Consultative body to provide
rationale for individual decisions*



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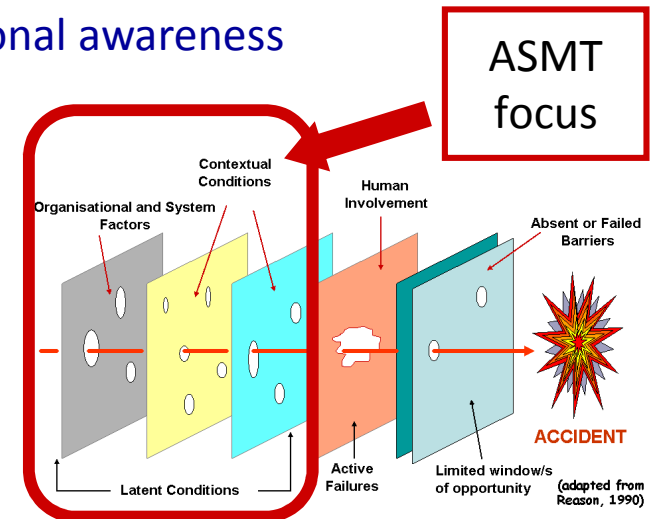


■ Enhancement of safety

- understanding an event in full, related to the same pair of aircraft such as multiple triggering STCA-SMI-ACAS RA recordings
- Pointing at systemic safety issues and concerns through HOTSPOTS map (technical analyses, airspace design & procedure, airspace management, operational practices, training issues)
- deriving lessons learned for training purposes or operational awareness

■ Safety Performance Monitoring

- Feeding Safety KPIs or SPIs
- Contribution to SMS effectiveness
- Identification of operational performance (best practices)

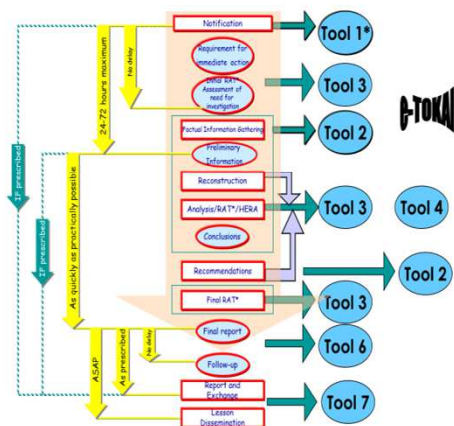
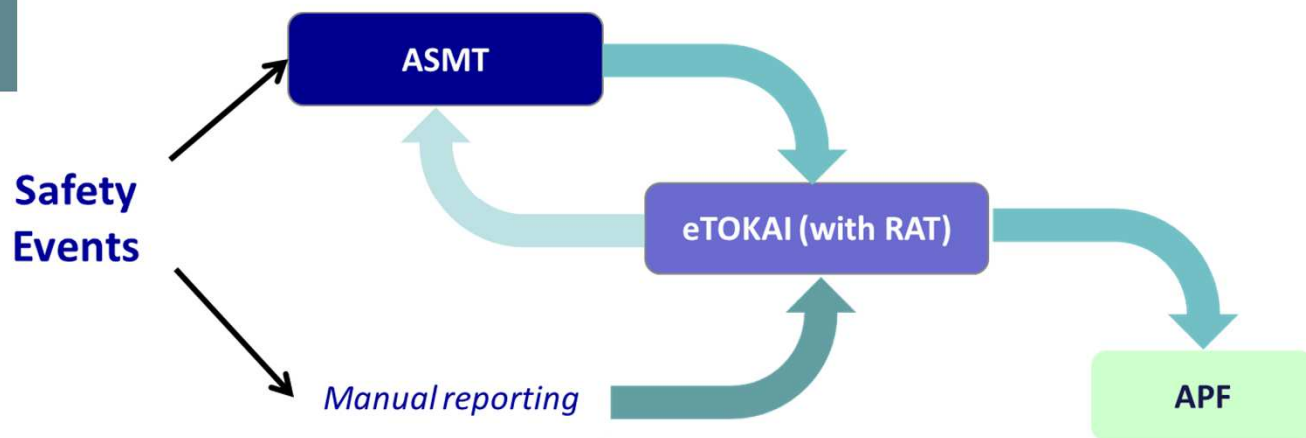
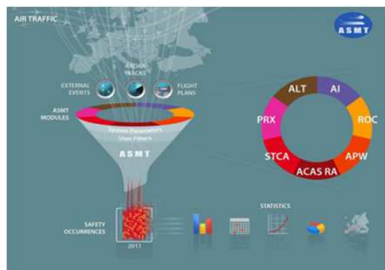


Systemic issue not ATCO Perf., not on “single SE”

04-05-2017

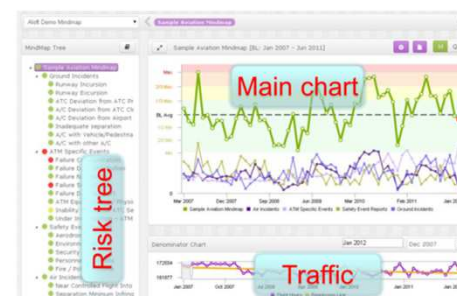


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Operations level
Collection of data & Analysis – Occurrences Investigation

Management level
Decision Making

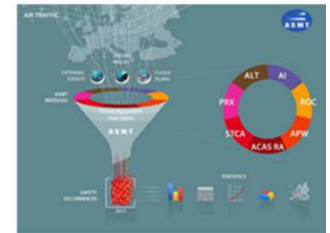




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- ASMT detects safety events which, after operational validation, might require to be investigated with the Organisation legal tools and processes, i.e. compliance with JC principles, regulations in force and international best practices
- With Just Culture really in place and staff confident, there is nothing to be afraid about the detection of events that are:
 - honest mistakes
 - minor infringements of separation minima that were needed considering operational situation and operations practices



- Ask to lay down strong principles to be shared with the Organisation stakeholders including Unions, Staff representatives and Management



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In other words.... A matter of Trust

- Successful implementation of ASMT :
 - Staff confident with the use of the tool wrt tool perception
 - Staff confident with the use of data wrt High Level Management decision
 - Use of safety data clearly defined
- A successful deployment factor of ASMT is to keep and adapt the use of the tool to operational practices and safety management processes already agreed and implemented in the Organisation.
- Infringement of safety margins because of pressing operational conditions to temporarily accommodate (e.g. heavy traffic) remains an aspect of “normal work” despite ASMT is installed or not
- An “honest mistake” remains an “honest mistake” despite the presence of ASMT or not.

The User sign with EUROCONTROL an Agreement that requires the use of ASMT with respect to «Just Culture»



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✓ Scope of use of the tool

- Enhancing safety, Contribution to SPM and SMS effectiveness

✓ Ensure Just Culture principles balancing safety and accountabilities

- Development of an ASMT policy that includes confidentiality and access to recorded data
- At any time should the Agreement or the ASMT policy are not respected, EUROCONTROL has the right to remove the tool

✓ Ensure Users' feedback

- Usage and Operational needs,
- Sharing best practices (ASMT Forum) and ensure common vision and evolution

✓ Propose Provision of Safety Data on VOLUNTARY basis

- No mandatory provision of safety data or safety report on case studies
- Voluntary collaboration with NM for risks identification, aggregation at FAB and EU level ensuring dis-identification of sources

❖ EUROCONTROL feedback

- User (Ops configuration, Ops analyses of data collected, SMS integration,...)
- Safety Team and link with Safety groups (SISG, SPIN ...)



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Sharing principles of use with Staff, Unions, Staff Representatives and High Level MGT



- Identify Roles and Responsibility of Management and Staff using ASMT data and outcomes
- Define what can be done and what cannot be done
- Assure Unions & Staff representatives about the use of ASMT
- Obtain **endorsement** by DG and become “credible”

Automatic Safety Monitoring Tool

ASMT Guidance – Support for the development of an ASMT Policy

POLICY

10 Principles



OPSCON



Automatic Safety Monitoring Tool

ASMT Guidance – Support for the development of an ASMT Policy



CONOPS



Automatic Safety Monitoring Tool

ASMT Guidance – Support for the development of an ASMT Policy
Concept of Operations

Starting Deployment
Monitoring phase
Best Practice

“what” to do with ASMT
“for which” Objectives

How the Tool will be
used for

RECTORATE NETWORK MANAGEMENT



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Non exhaustive and depending on culture & the Safety Management process



1. Exclusively used in compliance with the principles of Just Culture - **the tool will not be used in a punitive manner** and it will **never be used to control individual performance of ATCOs**.
2. **Never be permitted to use the data collected by ASMT to determine and attribute culpability, either individual or collective**, in any of the detected occurrences.
3. **Not a tool to trigger investigations**. However, the information collected by the **ASMT might be used, in some cases, to support investigations in progress** (only those that have already been started).
4. **Information collected** is composed of data coming from ATM occurrences that can be relevant from a safety perspective. The **objective of the analysis performed on the collected data is solely the continuous improvement of safety at a system level, by identifying latent conditions that affect the work of ATCOs**.
5. Any **communication of results obtained by analyzing ASMT data will be possible only after the complete de-identification** of the abovementioned data.

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FOR THE SAFETY OF AIR NAVIGATION



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Draft
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6. **Uses of collected data for training purposes** will be permitted only after the removal of all the identifying elements
7. Does not replace in any way human reporting and mandatory registration of occurrences.
8. **Analysis performed** on the data obtained is **only complementary and not a substitutive to the investigation of incidents** and the use of other data sources in the context of the SMS
9. **Clear identification of Administration of the ASMT and handling of the collected data** [function/department/unit having access to the ASMT and the ASMT data],
10. **Access to the data is secured. Persons who have right of access are precisely identified together with applied privileges & limitations.**
11. **Clear identification of source of Data and technical support** (unit/department responsible for providing ASMT equipment and Maintenance)

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IFATCA's feedback to the EUROCONTROL Safety Monitoring Tool - EASMT



- ✓ F2F meeting /sharing of ASMT Guidance for use
- ✓ Recognize EASMT is one of the most advanced ways of automated gathering of data to support the safety management process
- ✓ EASMT documents are in line with the IFATCA policy on the use of ASMTs around the world
- ✓ IFATCA welcomes - *although the policy is restrictive wrt experience with the use of the tool*
 - part that protects Just Culture and individual within the system
 - level of uniformity and harmonized approach on the use of data the tool brings
- ✓ IFATCA perspective of improvement
 - interpretation and use of data to enhance the safety versus incident counting and the possibility of using the tool to correct individual behaviour or human performance – **Systemic Safety Use**

Next Step



INTERNATIONAL FEDERATION OF
AIR TRAFFIC CONTROLLERS'
ASSOCIATIONS

360 St. Jacques, Suite 2002, Montreal, Quebec H2Y 1P5 CANADA
Tel.: +1.514.866.7040, Fax: +1.514.866.7612, Email: office@ifatca.org



230March 2016

EUROCONTROL Headquarters
Att. Frédéric Lieutaud
Rue de la Fusée 96
1130 Brussels
Belgium

SUBJECT: IFATCA feedback to the Eurocontrol Automatic Safety Monitoring Tool

Dear Frédéric:

Thank you very much for the meeting on the 14th and the initiative to work together with IFATCA on this important topic. Following the meeting we use the opportunity to comment on the initiative and propose a few avenues for the possible combined work in the coming future in particular with a view to implement the Eurocontrol ASMT tool.

First of all, please see attached our policy as annex to this input. IFATCA Policies are for public use and can be quoted without any restrictions.

We would like to divide our feedback in the following three areas:

- IFATCA's feedback on Eurocontrol's approach to implementation of the ASMT
- ASMT in a wider context and the IFATCA's general concerns with reporting
- Conclusion

IFATCA's feedback on Eurocontrol approach to implementation of the ASMT

This feedback is based on the presentation on the 14th of January and the reading of the documents surrounding the Eurocontrol ASMT (in this letter it will be referred to as EASMT). The EASMT is one of the most advanced ways of automated gathering of data to support the safety management process. Furthermore the EASMT is supported by documents that are in line with the IFATCA policy (see attachment) on the use of ASMTs within ANSPs around the world. Especially IFATCA commends the part that protects Just Culture and the individual within the system. Although IFATCA's policies are quite restrictive based on the experience of our members with the use of similar tools in the ANSPs around the world we see that the EASMT brings a certain level of uniformity and harmonized approach to the use of the data. This we welcome.

From an IFATCA perspective one of the most important elements to improve the use of automated data gathering in the overall improvement of the systemic safety in Air Traffic Management is the interpretation and use of the data to enhance the safety versus incident counting and the possibility of using the tool to correct individual behaviour or human performance. Here IFATCA is of the opinion that the EASMT guidance lack emphasis on how to use the EASMT. As it is now, we don't think it will improve safety management systems work around the world. We would prefer more emphasis on the use of the EASMT as a tool for systemic improvements and systemic improvements only. As we discussed in

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IFATCA's feedback to the EUROCONTROL Safety Monitoring Tool - EASMT



- ✓ **EASMT implemented within confident environment**
- ✓ **EASMT not used to take punitive action** but for the prevention of future incidents and accidents
- ✓ **Criteria for use must be carefully planned and monitored** with due consideration to minimized nuisance alerts
- ✓ **ATCO shall be involved** in the definition, implementation and future changes & roles of the EASMT
- ✓ **Use of qualified personnel** for the use of data (investigation) **wrt confidentiality provisions** and **any subsequent actions taken wrt JC principles**
- ✓ **Not used to monitor individual performance**
- ✓ **Occurrence only detected by ASMT not seen as wilful non reporting**

IFATCA ASMT policy:

IFATCA has strong concerns about the negative implications of the implementation of an ASMT to the ATM system, especially in regard to the respecting JC principles. However if an ASMT will be implemented the following principles shall apply:

ASMT must be part of a Safety Management System and shall not be used by management to take punitive action but solely for the prevention of future incidents and accidents. In order for Management to take punitive action. An ASMT shall only be enabled once appropriate safety nets relevant to the task such as STCA have been incorporated. The criteria used to define ASMT parameters must be carefully planned and monitored with due consideration to minimising nuisance alerts.

ATCOs shall be involved in the definition, implementation and future changes of the ASMT role.

Any incidents identified by an ASMT shall be subject to a thorough holistic investigation of the scenario by appropriately qualified personnel, taking due account of confidentiality provisions, and any subsequent action regarding the person(s) involved shall take full account of Just Culture principles.

The system shall not be used as a performance monitor for individual controllers, for capacity measurement or as a monitoring indicator. Appropriate safety experts shall undertake analysis of any derived data

If an occurrence is only identified by the ASMT management prior to investigation shall not see it as wilful non-reporting by the ATCO



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Thank you

