

safety bulletin

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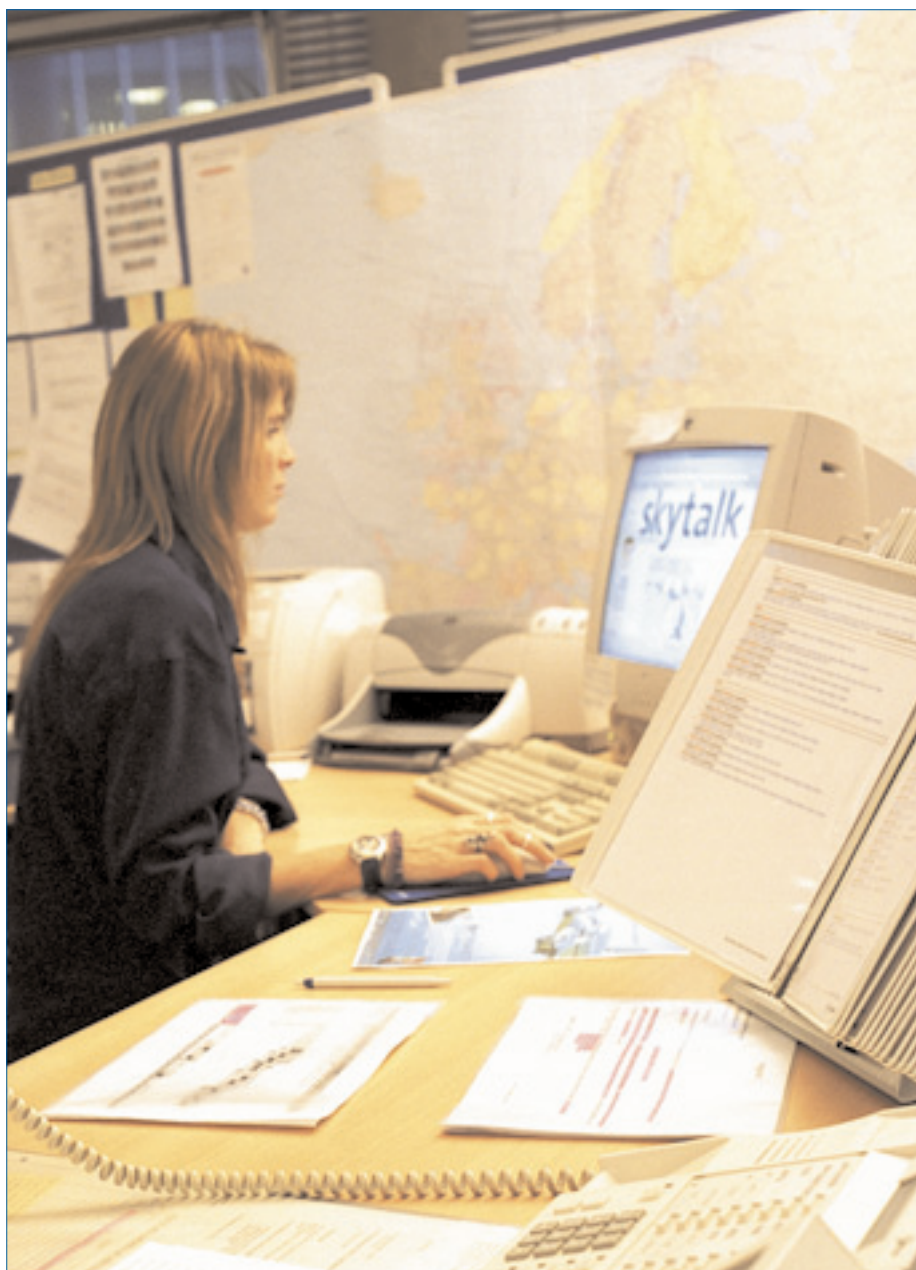
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Dear colleagues



As I am writing this editorial we are in the full change process towards the new organisation of the «Safety, Security, Quality» department. All members of the company have to be aware that this change is of major magnitude as it encompasses movements of personnel from operations, technics and safety. I am not looking through rose colored glasses and am well aware that the building of this new department has the potential to create questions, doubts, and even fear or frustration. On the other

hand, there are expectations, hopes and even joy as we now have the chance to create something state of the art.

The speed of this change might look to be exaggerated but my personal experience with change management (fortunately, or unfortunately, I had to go through quite some heavy ones) taught me that the final result justifies this pressure. Resistance to change is normal human behaviour and according to my observation we are still in, but at the end of the storming phase. Norming has already started in some sections, and the final phase «performing» will be reached during summer. Our main challenge is to keep the level of safety at a high standard during the whole change, of which I am very confident, otherwise I would not have moved into this process.

In the first few days of March, about 90% of the detailed reorganisation is complete: the concerned people

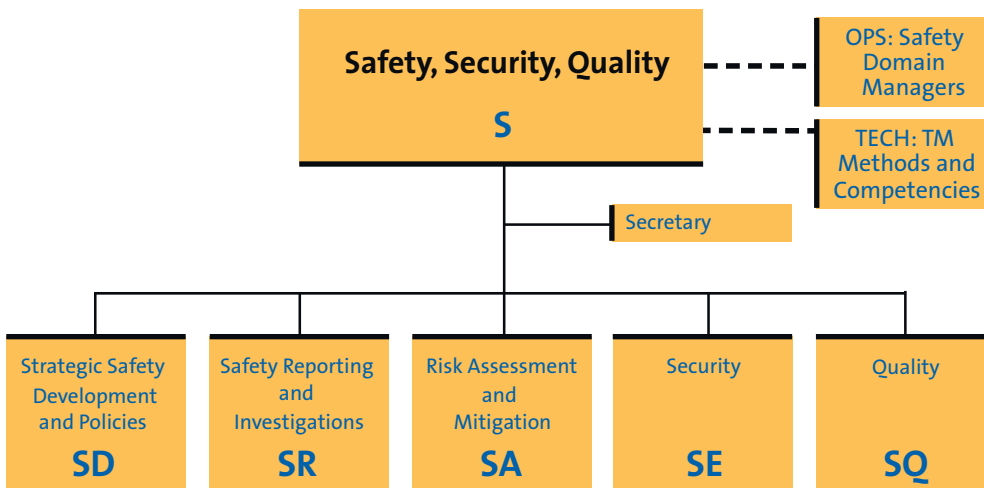
are now informed, the initial job descriptions and duty statements for each position is ready and human resources are writing the new contracts. With the new contracts, new expectations are growing, normally with a clear vector. We are evaluating the situation together with the «HAY-group» and my basic goal is to reach just and equitable results which accept comparisons into other departments.

As you know, I will lead the «Safety, Security, Quality» department until the end of this year, pulling back from my executive management role. This will allow the completion of the reorganisation, the final development of our strategic safety plan (resulting in the harmonisation of safety culture across the organization) and the preparation of a smooth transition with the new Chief Safety Officer. The selection process has started amongst the dozen internal and external applicants. Assessments will be carried out by external recruiting specialists

during March which will help the CEO to make his decision about his future collaborator. Finally, the outcome of the selection process has to be approved by the board of directors. Extrapolating all those steps, the name of the new Chief Safety Officer can be expected during April.

As I said this change is major, and major changes request a positive change attitude. Even if resistance is normal, this phase has to be shortened as much as possible. With your help we can do it.

JÜRIG SCHMID
Chief Safety Officer, S



SD, strategic safety development and policies

The division SD is completely new and has only been established at the beginning of March 2008. For the moment, SD is staffed with 7 person, all of them being senior experts in safety management: René Aebersold (head), Anthony Gunton (deputy), Stéphane Barraz (at the moment safety project manager for the KLO-DUB transfer), Fabrizio Balda, Lisa Donne, Thomas Novotny and Roger Suter.



Why do we need a strategic safety development division within the S department? There are several reasons, of which I only state the most important ones:

1. New general trends and methods in the safety domain must be identified. Based on the knowledge gained by this activity, and based on needs identified within the company, appropriate strategies must be defined of how to evolve skyguide's SMS with the goal to have a modern safety framework according to best practice within Europe and compatible with national and international regulations. Since strategic tasks usually only have second priority when they are within the scope of divisions producing «every day business», these tasks always fall short. SD will be able to set appropriate priorities.

2. High level bodies of the company like the Board of Directors or the Board of Management need regular information about the safety status and the achievement of safety targets of the company. In order to provide these information, safety key performance indicators need to be defined and monitored, and a safety plan must be developed, implemented and maintained on a regular basis. These are activities which have to be provided in a rolling and ongoing process and in an objective and equal manner for all safety activities within skyguide. Their results have to be presented in a harmonized format. It is obvious that a centralization of this monitoring function within a division independent from the operational or technical departments has a lot of advantages.

3. The safety culture of skyguide and the understanding of safety should be harmonized within the whole company. By centralizing the strategic safety development within SD, the basis is set for an equal implementation of the safety framework within the individual departments. At the same time, the safety resources can be managed more efficiently, and priorities can be set more effectively.

4. Safety training should be provided in a harmonized way throughout the whole company. In close cooperation with OT specifically, but also with the other departments in general, SD will identify training needs, include safety training as an integral part within the safety plan and produce specific safety training modules for all domains.

But why 7 person to do strategic planning, you might ask. Of course we are aware that we can not afford to mandate such a large group of highly qualified experts to only think of strategic safety development and do monitoring functions. To compensate this, the SD experts will spend a good part of their time in projects or in performing tasks of other S-divisions, according to specific mandates. This permits to keep their operational expertise up to date on one hand, and provides on the other hand the opportunity to support specific tasks or projects

where there is an urgent need. This temporary supporting function will allow the SD-experts to be available for projects up to 100% during a specified time (e.g. Stéphane Barraz who manages the safety side of the project transfer KLO-DUB), or provide a certain percentage of their working time for a specified task outside of the strategic scope of SD. I myself will have to share my time as head of division with my duties as deputy of the head of department S (who is now member of the Board of Management), which will keep me busy for at least 40% of my time. The team will now start to discuss the vision, the safety objectives and the products we are expected to meet or to deliver, as well as the way of how to proceed to get there. This should enable us to define a safety road map and an action plan, which will probably be our first deliverable. There is lot's to do, let's go!

RENÉ AEBERSOLD
SD

From DSO to SR

From the 1. Of March the DSO (occurrence management) division has changed into SR (safety reporting and investigation management). This is the latest evolution of a system which has only existed for approximately 4 years, yet been undergoing rapid changes on its way. When Tom Laursen first headed this division, it marked the beginning of skyguide's first confidential reporting system for operational occurrences. It also was the first time that such a big change was decided in close collaboration with the ATCO associations. Last but not least it also marked a complete paradigm change in the way skyguide would look at occurrences. From the «old» person focused to the «new» systemic view, where the aim was to explain human performance in complex systems instead of judging it.

Needless to say such changes never arrive undisputed. And the following years provided quite a few heated discussions regarding the application of this change. In the meantime,



as one of 4-5 assigned ATCO-Investigators, I had the opportunity to develop the application in occurrence investigations in close collaboration with Tom, fellow investigators and a team of RIT's (regional investigator team). As a next step 2 years ago, the scope of the internal investigations was expanded to include technical occurrences as well.

When Tom Laursen left the DSO department last summer the continuation of the work, which we had

engaged in, was of great concern to me and I am grateful that I have been trusted with this task from the beginning of this year.

With the reorganization from the first of March the new SR department will also handle the incoming SIR's and manage the skyguide CISM programme. This means that all reporting systems can be managed in a uniform way through one unit, which at the same time can ensure the availability of Peers in case of a critical incident.

Of course all these systems are of little relevance without You, the reporters! The information that You all provide us with through sending of reports is key for the understanding of our systems performance and vulnerabilities. Unfortunately although fully understandable the reporting channels are rather quiet following the legal proceedings against an ATCO in the TWR/APP GVA. I really hope that the conversations/negotiations

between the involved stakeholders will correct this mishap and maybe even bring our legislation one step further towards the creation of a «just culture».

In the meantime we will do our best, again in collaboration with skyguide management and associations, to refine the reporting and investigation channels that are available. This will also include the creation of new job-opportunities for part time ATCO-Investigators and Technical Investigators. So if you are interested in the work of the safety department, look out for job – openings in the near future.

Best regards
 MARCIAN TESSIN
 SR

Risk Assessment & Mitigation, SA

The reorganisation not only as a challenging exercise but as an opportunity to adapt to new challenges

The environment in which our company is embedded, has been, is and will be characterized by financial/production, safety and regulatory/political needs. To cope with these often diverging demands, a cluttered Safety Management System has developed in the last few years. As a consequence split organisation led to different cultures and mandates within skyguide and in the same time enabled the company to identify the local requirements. The organisational change will enable skyguide to evolve to a common safety doctrine building up on the acquired experience

«continuous improvement: as no process can ever be declared perfect, there is always room for improvement», Kaizen.

A prerequisite for success will be a hand in hand work, throughout the company, for the company.

What is the «Risk Assessment & Mitigation» division's intention

skyguide's orientation is strongly reflected by its collaborators situated at the sharp end of it, those who provide directly the services to our customers. A powerful behavioural pattern can be recognised there

«we will always do our best, in the best available environment, to provide the best service».

We, as many other colleagues, act on the «available environment». We consider that our duty is to act at these levels where we may achieve the best improvement.

The SA division is currently focused on skyguide's change process.

SA division's mission

Support the change process to enable an improvement of the environment by

«going to the source to find the facts to make correct decision, build consensus and achieve goals», Genchi Genbutsu.

To achieve our mission we use tools, such as safety assessments, and take influence on the working methods related to the change process.

Who are we

The «Risk Assessment & Mitigation» division is composed of three groups. The «Ops Systems Safety» and the «Systems Safety

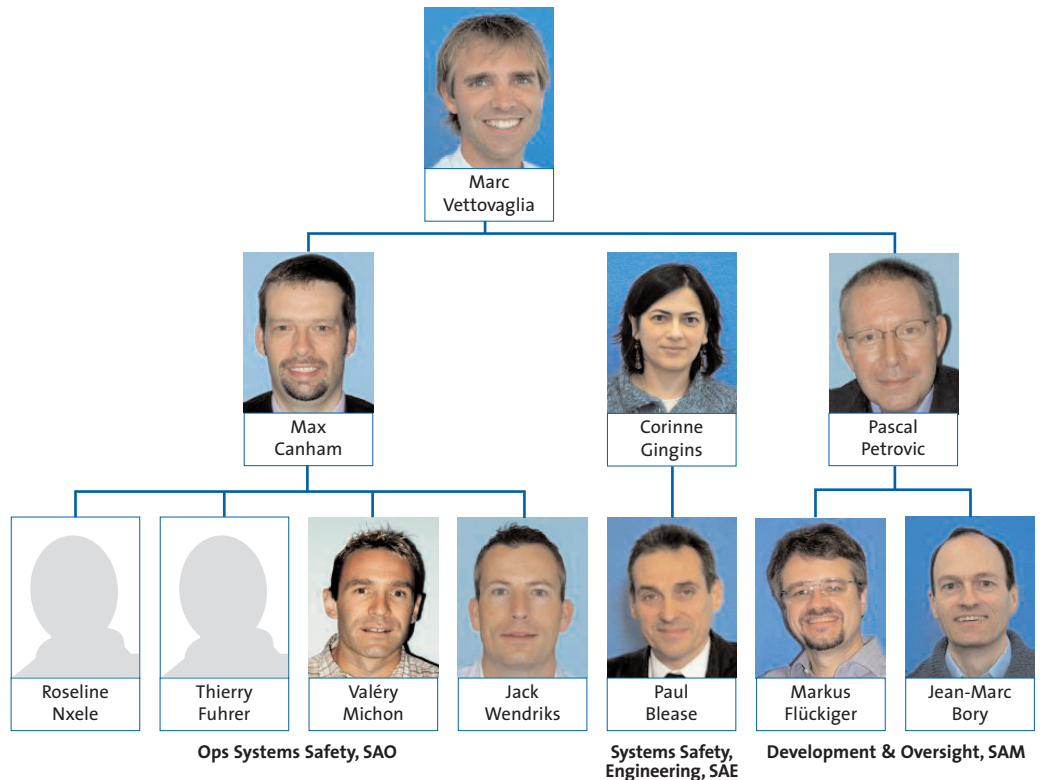
Engineering» groups provide the support for the safety assessments conducted within the «Operations», respectively «Engineering & technical Services» and «Finance, Human Resources & Services» departments. The «Development & Oversight» team ensures the continuous improvement of the tools, methodologies and processes.

Final words:

«think safety, act safely»

MARC VETTOVAGLIA
SA

Risk Assessment & Mitigation, SA



Airbus and Boeing crossing in descent phase

Event description

A crossing between an A320 descending to FL140 into Zurich from the west and a B738 descending to FL 140 into Basle from the east led to an AIRPROX in the Zurich ACC West Sector in the vicinity of GIPOL. The minimum measured separation was 4.2 NM / 600ft while crossing, the A320 at FL140 with Zurich Arrival and the B738 descending through FL146 for FL140 with the Zurich ACC West Sector.

At the time of the infringement, the ACC Zurich Sectors South and West were running as a combined sector. The traffic load at the time of the

event was defined as medium and without significant complexity by the interviewee. The controller stated during the interview, that the workload had been relatively high and complex before the event took place at the end of the last session of the day and felt tired.

The two aircraft involved were:

- B738 – LTAI/LFSB - routing TRA direct to BLM.
- A320 – EHAM/LSZH - flying from BLM on heading 110 for vectors.

DVO28 was active for arriving traffic to LSZH and the ACC West controller had made an agreement with Zurich Departure, to allow traffic

departing towards the West to fly direct to the exit point in the Zurich ACC West Sector without further coordination.

To achieve a horizontal separation of more than 5 NM in between the A320 to Zurich and another aircraft departing from Zurich towards TORPA, the controller coordinated a radar heading of 110 degrees for the A320 with Zurich Arrival West. The controller noted that the new track of the A320 resulted now in an opposite track to the B738 on the routing TRA-BLM.

At the time the A320 was sent to Zurich Arrival West descending to FL140, the B738 was cleared to descend to FL160. The A320 was still

in a descent at this time and had just passed FL160 with a ROD of 2000 feet/min. The controller stated during the interview, that he believed that the A320 was descending to FL130. As a consequence of this perception the controller cleared the B738 to descend to FL140 and decided to wait with the final descent inbound to LFSB until the two aircraft had passed each other and a horizontal separation of 5 NM was achieved.

At the time the controller noticed that the A320 was maintaining FL140, the STCA triggered. The controller's solution was to turn the B738 onto a radar heading of 290 degrees, which resulted in a minimum measured separation of 4.2NM / 600ft.

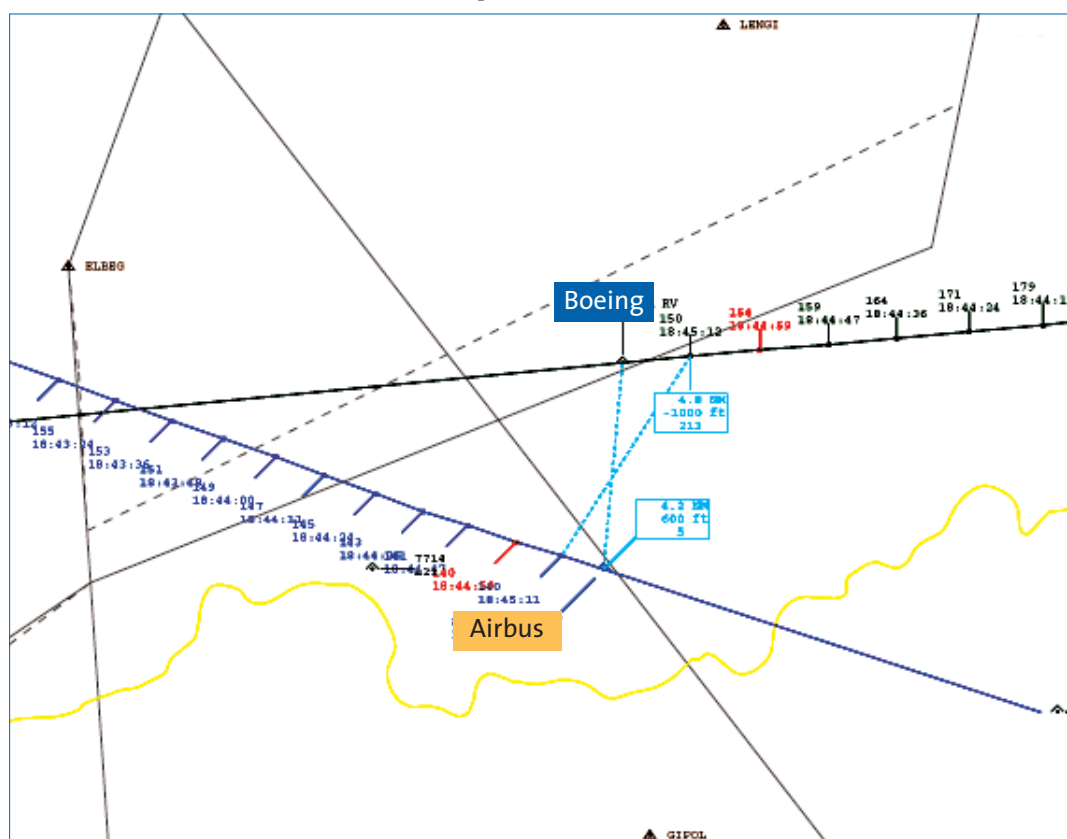
Conclusion

The combination of tiredness at the end of the day and the conviction that the A320 was descending to FL 130 resulted in clearing the B738 to FL 140 and thereby creating a situation where both aircraft were cleared to the same flight level on opposite tracks.

Recommendation

This is the first case, where fatigue in combination with an increase of traffic load is identified as a contributing factor.

The increase of traffic load, the complexity at the sector together with the length of the working time at the sector are aspects that the SR-department will recommend to be reviewed in the future.



NICHOLAS SCHERRER
SRO

The criminalization of human error

In the previous article of the HF column an accident was presented to make the point that drawing the line between mechanical failure and human error does usually not go without major difficulties. Modern safety knowledge advocates to embrace the system view instead of the person approach, and therefore to move beyond blame.



Person approach versus the system view

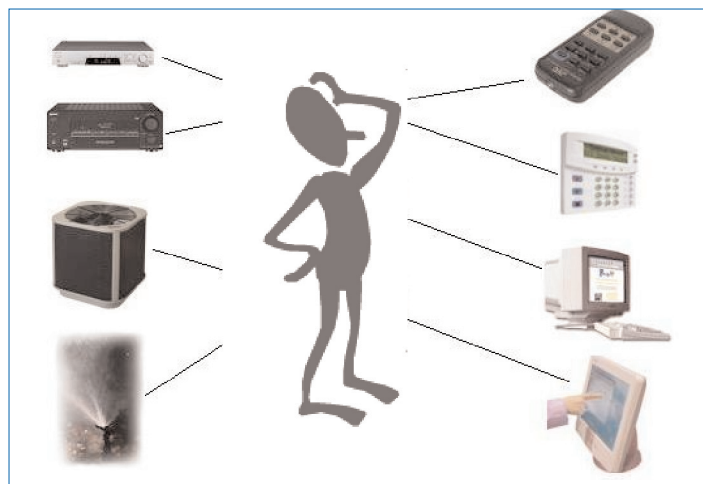
However recent occurrences still show sharp-end operators (pilots, controllers, drivers, etc.) get charged with criminal offence. Some maintain that pursuing individual operators for erring on the job is morally non-problematic. However we should not hide that such proceedings have severe and long lasting impacts: the operators stop sending safety related information. This source is crucial to help the system to keep up to date with the risks it runs. Blaming individuals might deflect the attention from upstream organizational issues and preserve the otherwise «safe» system. Culpability in aviation is a highly flexible category, it is negotiable because being subject to

national and professional interpretation, influenced by political and organizational pressures.

Punishment and learning

Punishment and learning are two things that can hardly be done at the same time, indeed punishment:

- protects false beliefs about basically safe systems where the humans are the least reliable component
- emphasizes that failures are deviant and do not naturally belong to the system
- compartmentalizes safety lessons to one person or unit whereas learning generalizes safety lessons
- conditions others not to get caught next time (and prevents reporting), learning is about avoiding a



next time altogether

- is about moving away from the terrible event. Learning is about continuous improvement
- is about seeking culprits at the sharp-end, learning is about countermeasures to remove error-producing conditions
- etc...

Basically there are two opposite ways of looking at human error: we can see the human error as a cause of the failure or rather as a symptom of failure, meaning that the «mistake» of the operator actually reveals a trouble that is located somewhere deeper in the whole system being considered. The assumption that (in a mishap's investigation) the operator must have failed has no longer much support in modern safety knowledge.

Our system (e.g. ATC) is relying very much on operators to tell about system deficiencies, therefore people need to trust the system in order to

feel well when reporting about errors. This required environment to enable free communication about safety issues is called «Just Culture». Eurocontrol itself makes great efforts in order to put a «Just Culture» in place everywhere in Europe. Swiss confederation also has implemented a confidential reporting system recently (controllers use the OIR which offers the same features). At skyguide the reporting is confidential for some years already. No doubt the whole industry is moving slowly but surely towards «Just Culture». However while the industry just begins to move towards learning instead of blaming or punishing, it is not the case of all stakeholders that come into play in the aftermath of a mishap; for example the judicial system does not have (yet?) the same way of looking at things in this respect, unfortunately.

► The criminalization of human error

A recent example

Fairly recently in the United States of America, attorneys suing Comair airlines for damages associated with the crash of Comair 5191 in August 2006 have persuaded the Court to allow them to use reports from the airline voluntary reporting system as part of their case. ALPA (Air Line Pilots Association), the FAA (Federal Aviation Administration) and the Flight Safety Foundation have opposed the court decision. The Comair program, called ASAP (Aviation Safety Action Program) in the U.S., is funded by the airline and involves airline management, employees and the Federal Aviation Administration cooperating to review reports and recommend corrective safety action. Such proactive programs are widely believed to represent one of the best opportunities to continuously improve the safety and efficiency of the air transport system. Because the maintenance of such systems

requires individuals and organizations to be very cooperative and open, there has always been a concern about the possible inappropriate use of the information gathered within the reports.

The International Civil Aviation Organization has recognized this problem and responded with guidance for States in how to best encourage such programs.

The protection of safety information from inappropriate use is essential to ensure its continued availability, since the use of safety information for other than safety-related purposes may inhibit the future availability of such information, with an adverse effect on safety. This fact was recognized by the 35th Assembly of ICAO, which noted that existing national laws and regulations in many States may not adequately address the manner in which safety information is protected from inappropriate use.

ICAO Annex 13, Attachment E Paragraph 1.1

IFALPA believes that the decision of the court in the Comair case may well cause other airlines to reconsider if the time and expense which they devote to their individual ASAP programs are in the best interest of their organizations. IFALPA further believes that such reevaluation, should it occur, would be a significant loss to worldwide efforts to enhance aviation safety.

Now all this sad story happens in the U.S, however it is no secret that the very same proceedings are happening much, much closer to us. It seems it is a worldwide problem that needs to be tackled. Eurocontrol issued a brochure called [«Just Culture Guidance Material for Interfacing with the Judicial System»](#) which might be a good starting point to open the communication in Switzerland about this issue. It will last several years probably before the first clear effects will show up, but surely it is worth the effort otherwise

we will continue to lose crucial information that only highly qualified experts at the sharp end are aware of. Undoubtedly my viewpoint is that the actual constellation is favorable in Switzerland for a discussion to take place, a discussion that should have occurred probably a long time ago already, however better late than never.

THOMAS NOVOTNY
SDE

Articles and more information are available [here](#)

Sources: IFALPA press release «Voluntary Disclosure Program in Jeopardy»=8PRL2o
Dekker, S.W.-A «Punishing people or learning from failure, the choice is ours»
Hollnagel, Amalberti «Whatever happened to human error»