



Safety Culture:

How we went from “*who did it?*” to “*why did it happen?*”...

Thomas Romig
Safety Officer

When did it all
start?

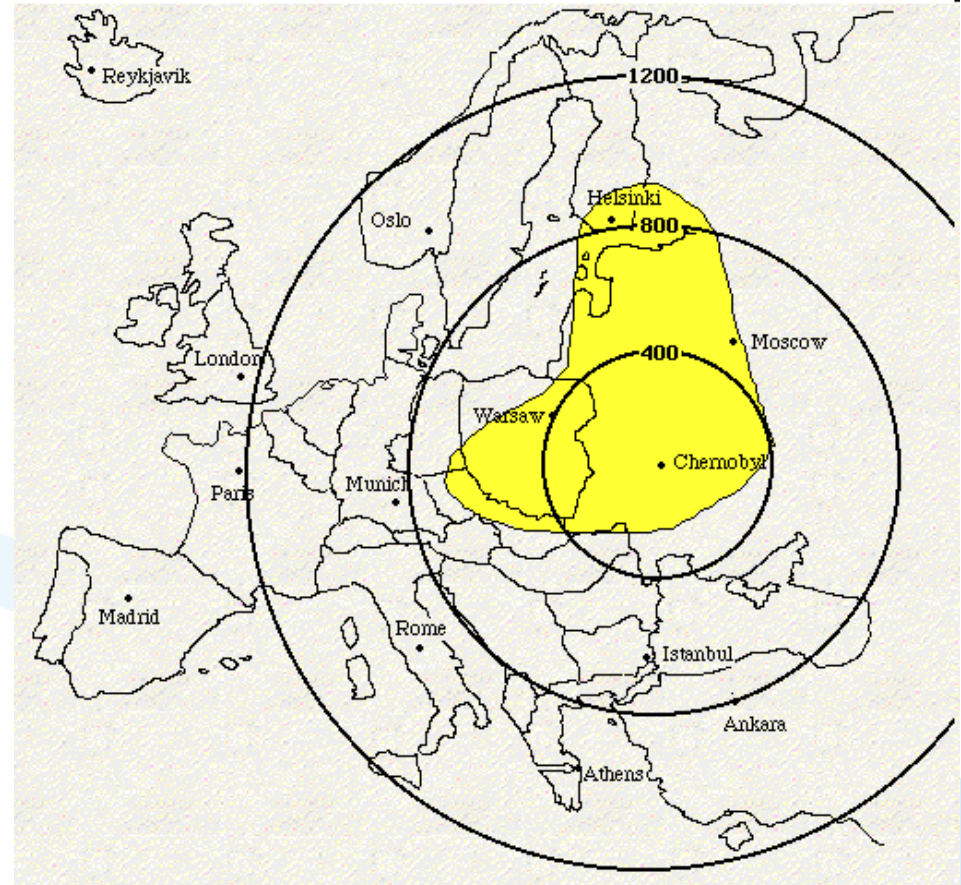


The Chernobyl disaster 1986...

The investigation of the catastrophic meltdown showed that the organisational culture was a key factor in the outcome of the disaster:

“The operators of the power plant and the conductors of the experiment on the No. 4 reactor held too much faith in the reactor; to them, a catastrophe was simply inconceivable.

*Because of this, they had no qualms about **disabling the safety features** of the reactor and taking unnecessary risks to carry out the experiment.”*



Should we have “too much faith” in the safety of aviation...?



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Should we have “too much faith” in the safety of aviation...?



What does this mean for the safety culture in the Swiss aviation industry?

Safety management and safety culture...

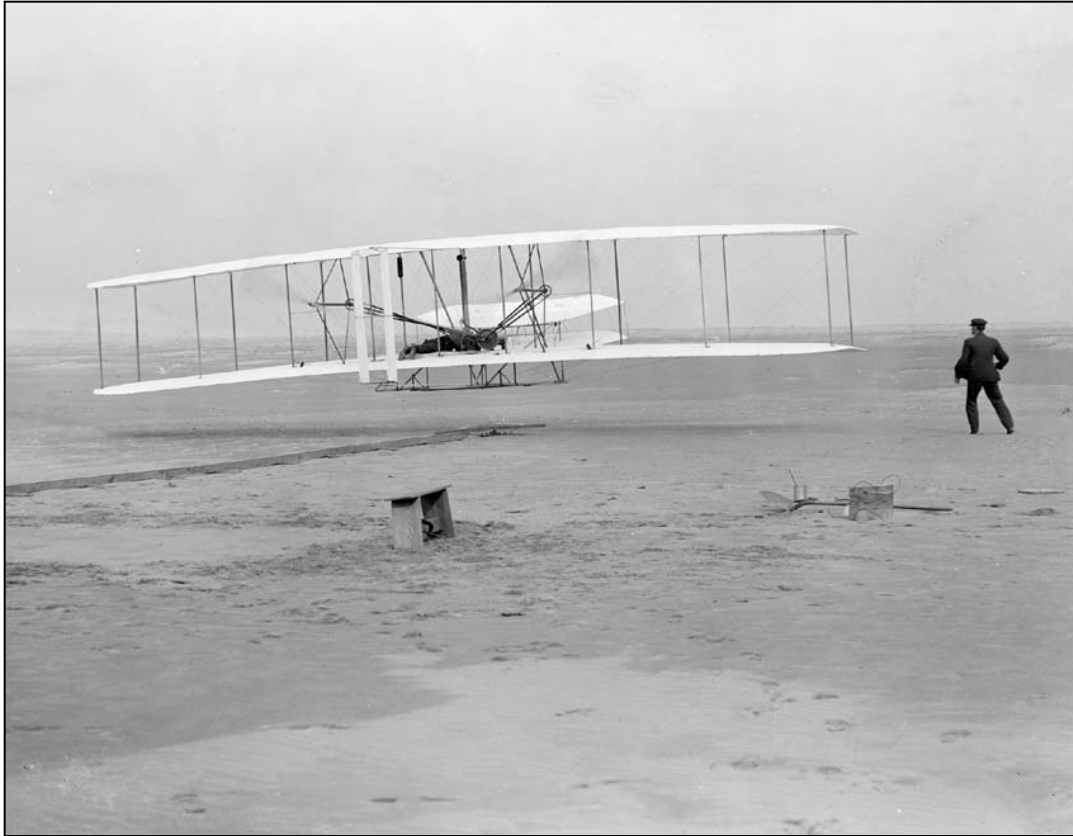
- Formal safety management systems were first implemented in the 1990s following the Piper Alpha and Chernobyl disasters.
- Aviation safety management systems started to be implemented towards the turn of the century and became mandatory as of 2003 through the aerodrome certification process.



How was safety managed
before SMS?

Did safety cultures exist?

The evolution of safety through aviation history...



"If you are looking for perfect safety, you will do well to sit on the fence and watch the birds."

Wilbur Wright

The risks that the early aviators took were calculated and accepted to allow for the development and progress of aviation.

The evolution of safety through aviation history...

- Traditional approach to safety in aviation aims at preventing accidents from reoccurring
- The focus has always been on:
 - **What** happened?
 - **When** it happened?
 - **Where** it happened?
 - **Who** did it?
- The concept of non-punitive safety was mostly non-existent as blame is always sought out
 - **Who did what and when?**



New concepts:
Why and how did an event occur
What caused it?

Where are we today?



- Safety management has evolved within organisations to become an integral part of the organisational culture.
- **What does this mean?**
 - Employees understand how SOPs and their application impact safety.
 - Employees are given the responsibility for the safety of their actions.
 - Employees are empowered to identify and implement safety improvements.
 - Employees understand their role in the management and improvement of safety



Perhaps progress and changes in organisational culture will create new Safety Issues which have to be addressed ?

Measuring the Safety Culture at GVA

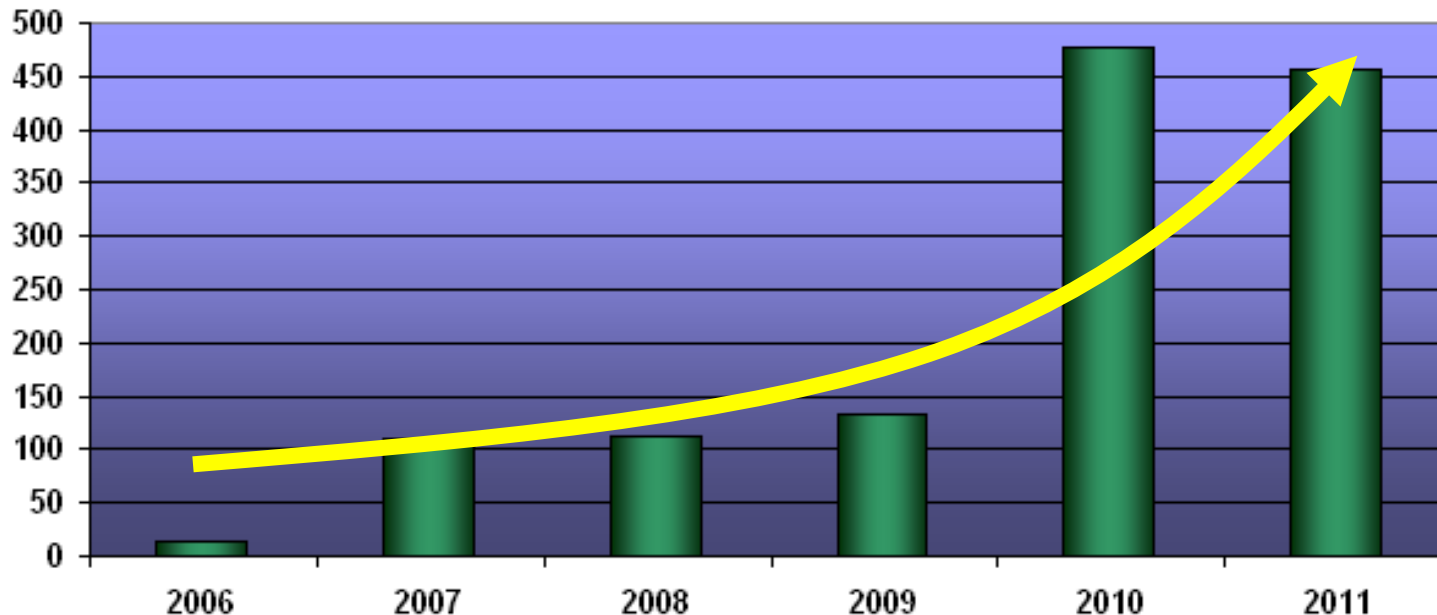
- Start of the implementation of a formal SMS: **2008**
- SMS implementation plan from **2008 - 2011**
- The evolution in organisational safety culture has been rapid and constant !



How can the safety culture
really be measured ?

Measuring the Safety Culture at GVA

- Indicators can be used to provide a feeling of the evolution of the safety within the airport community.
- Evolution of the number of safety reports received:

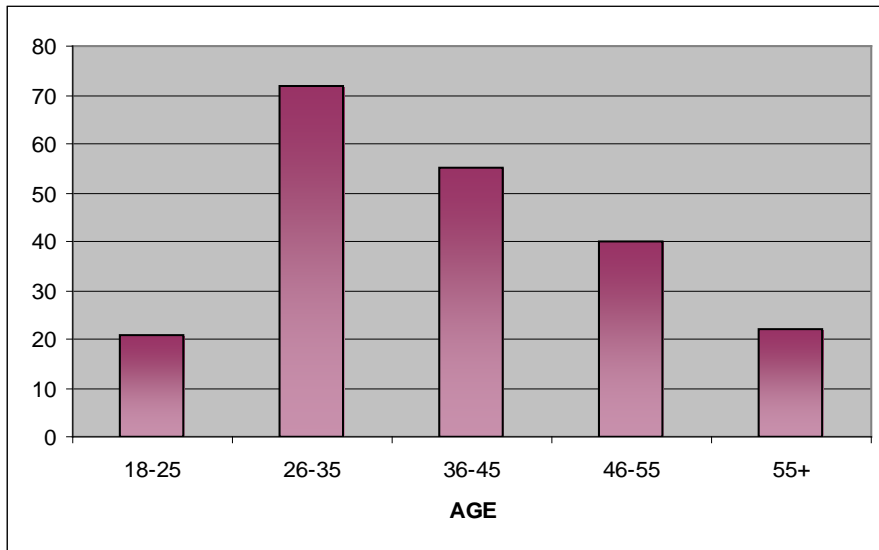


GVA Safety Culture Survey (2010)

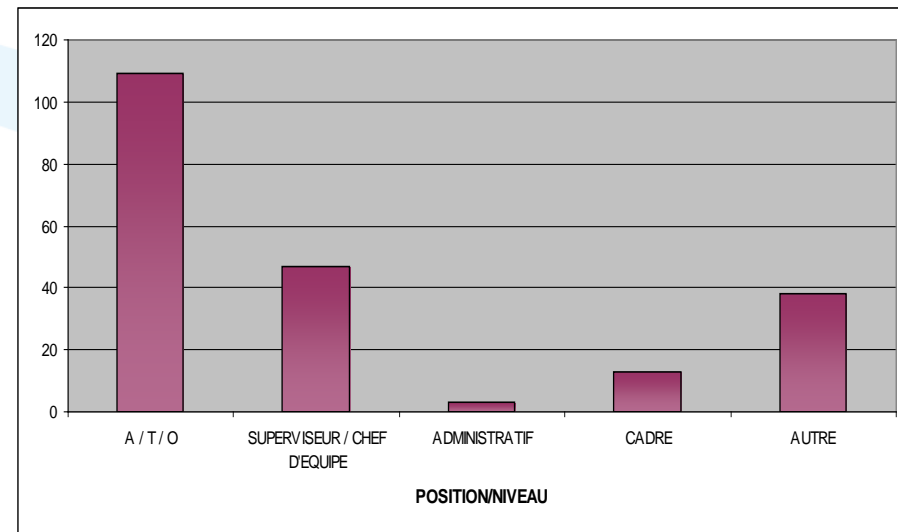
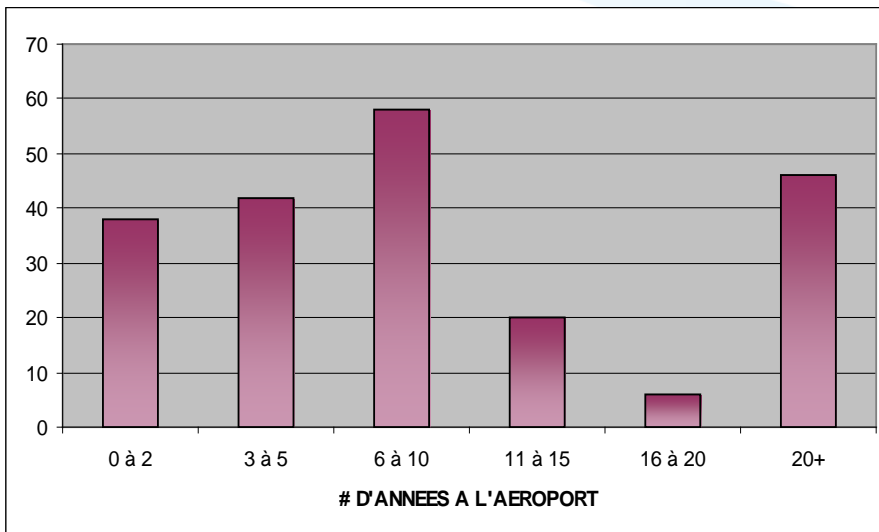
- Safety survey put in place to identify the baseline safety culture within the airport community.
- The questionnaire included:
 - 22 questions in 4 areas
 - Safety information
 - Safety training / communications
 - Safety reporting
 - Safety on the ramp
 - Basic information on the personnel filling in the questionnaire.
- 150 questionnaires were returned

| Aéroport International de Genève | | Enquête Sécurité Tarmac Ramp Safety Survey | | | | | |
|---|--|---|---|----------------------------------|-----------------------------------|------------------------------|--------------------------|
| 1. PARTICIPANT'S INFO | | | | | | | |
| Organisation | | | | | | | |
| Age | <input type="checkbox"/> 18 - 25 | <input type="checkbox"/> 25 - 35 | <input type="checkbox"/> 35 - 45 | <input type="checkbox"/> 45 - 55 | <input type="checkbox"/> 55 - 65+ | | |
| Sex | <input type="checkbox"/> M | <input type="checkbox"/> F | | | | | |
| Position / Level | <input type="checkbox"/> Agent / Technician / Operator | | <input type="checkbox"/> Supervisor / Team leader | | | | |
| | <input type="checkbox"/> Administrative | | <input type="checkbox"/> Manager | | <input type="checkbox"/> Other: | | |
| Years of work at Airp. | <input type="checkbox"/> 0 - 2 | <input type="checkbox"/> 2 - 5 | <input type="checkbox"/> 5 - 10 | <input type="checkbox"/> 10 - 15 | <input type="checkbox"/> 15 - 20 | <input type="checkbox"/> 20+ | |
| 2. QUESTIONNAIRE | | | | | | | |
| Part 1 : Safety Information | | | | | | | |
| Strongly agree (1) - Partially agree (2) - Partially disagree (3) - Strongly disagree (4) | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | |
| 1 | Do you feel that your team members fully understand the risks you are exposed to when operating on the ramp? | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | Do you feel that the risks to which your team members are exposed are adequately communicated to them? | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | Do you feel that the members of your team understand their responsibility in terms of safety? | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | If yes, do you believe that they demonstrate this responsibility? | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | Do you feel that the mission and objective for safety within your team is clearly defined and communicated? | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Part 2 : Safety Training / Communication | | | | | | | |
| Strongly agree (1) - Partially agree (2) - Partially disagree (3) - Strongly disagree (4) | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | |
| 6 | Do you believe that the members of your team have received adequate safety training to accomplish their tasks? | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 | Do you believe that additional safety training is needed for the members of your team? | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 | Do you believe that additional safety communications are needed? | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9 | Do you feel that the format and tools used for safety communications you receive are adequate? | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 | Do you believe that members of your team understand the safety procedures required for their jobs? | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11 | Do you believe that the members of your team apply the safety procedures required for their jobs? | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

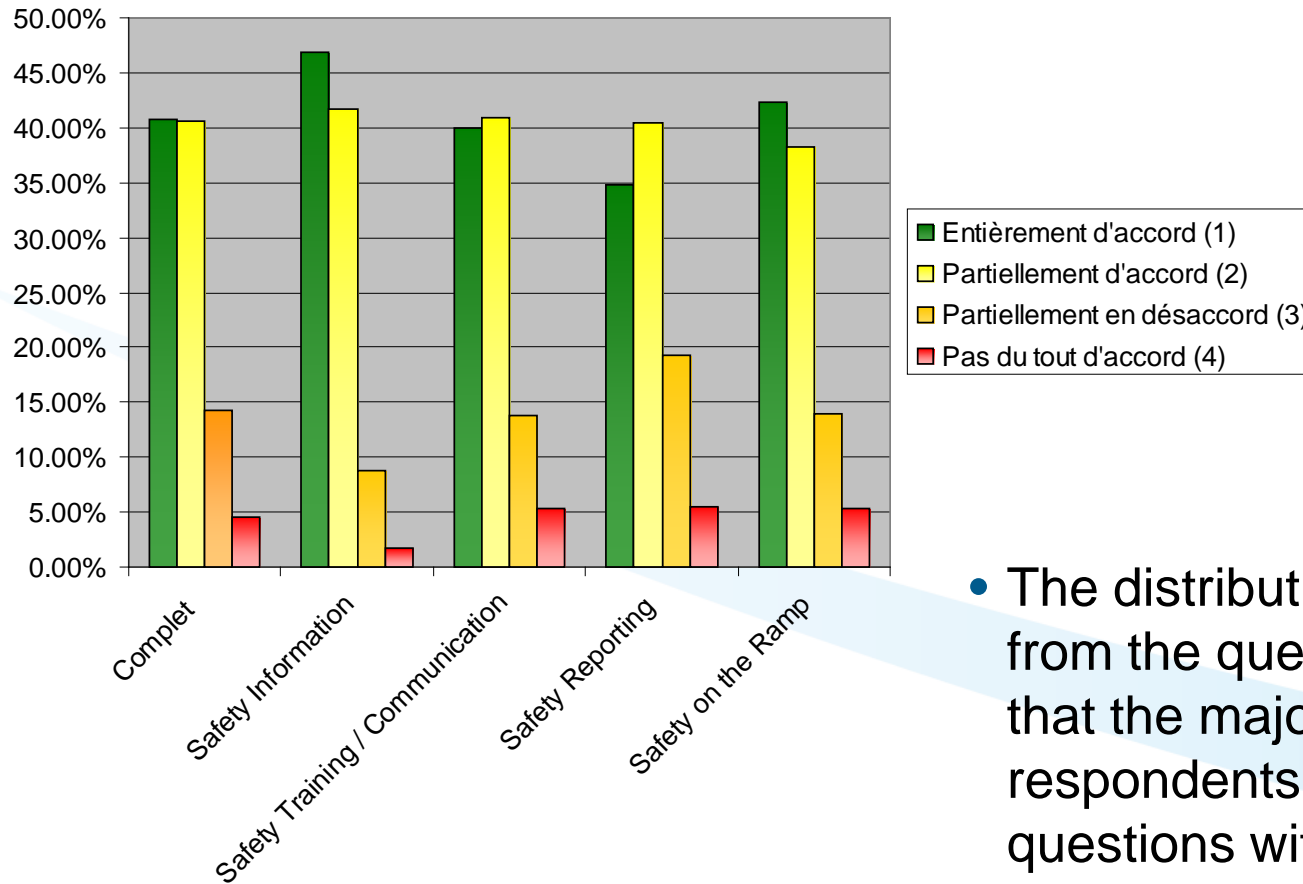
A few results...



- All age groups were represented
- The distribution of the number of years respondents have worked at the airport was more or less equal.
- More operational staff responded than administrative or management staff.



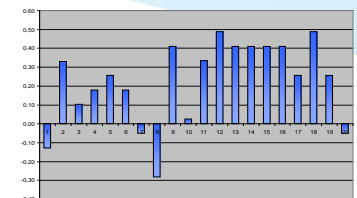
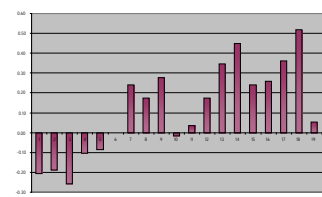
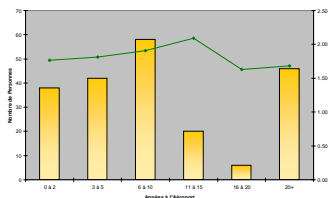
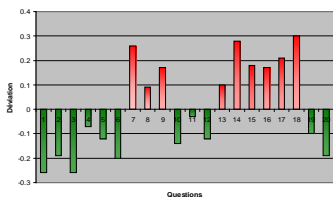
A few results...



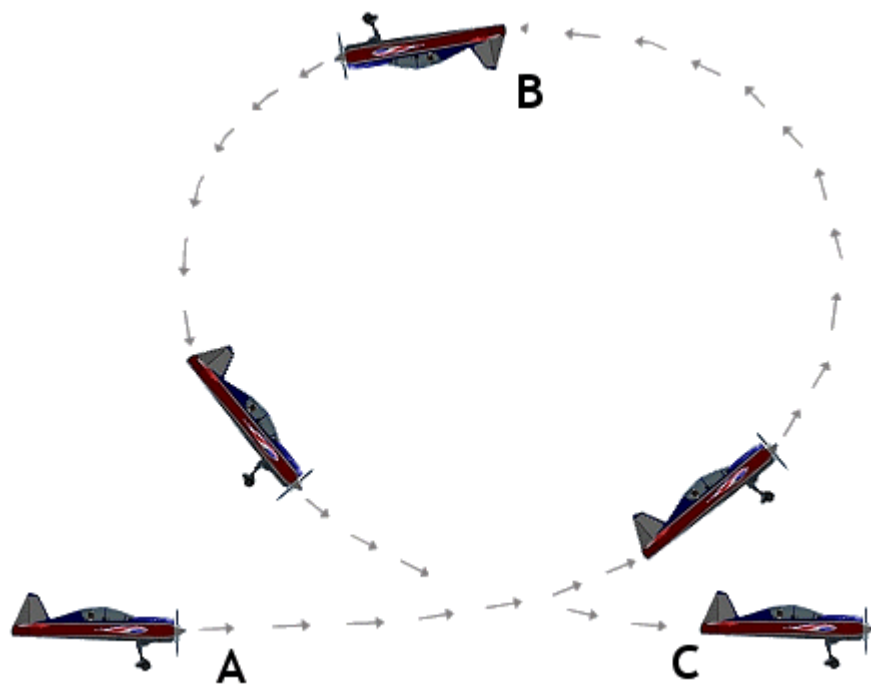
- The distribution of results from the questionnaire shows that the majority of respondents answered the questions within the high or medium range.

A few results...

- The survey was overall well accepted by staff.
- This approach provided a statistic confirmation of what was already “felt” in terms of safety culture.
- For example the survey allowed the Safety Office to identify:
 - Which responding organisations came within a “high”, “medium”, or “low” category of safety culture.
 - That on average people who have worked for less that 10 years at the airport considered safety to be more important (2-5 years was the highest).
 - That the overall safety culture is positive and that the “base” generally feels that operations are safe



Looping the loop...



- The safety culture has globally evolved within the industry through the implementation of safety management systems.
- Safety has become process oriented and uses stats, figures and indicators to measure successes and failures.
- Through organised management systems safety can be improved and the causes of safety issues identified and adequately managed.
- The more we adequately manage safety, the better the safety culture will become!

Conclusions...

Managing safety and risk through an SMS will only be effective if we can develop the right kind of culture.

Remember that an organization's culture develops over a period of time and cannot be created or changed instantly.

“Organizations, like organisms, adapt”
(J. Reason, 1998).

