



## Geneva International Airport Safety Management System

Leveraging data and statistics to  
monitor and improve safety  
performance

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SASCON'10  
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## Discussion points:

- The GVA SMS
- Data gathering and treatment
- Performance monitoring  
(*performance indicators*)
- Practical application

Objective:

Provide an overview of how the data gathered  
by an SMS can be used to proactively  
improve Safety.



## Background information

At GVA:

- Development of the “formal” SMS has been ongoing for just over two years
- The reporting and data gathering process was initiated in 2007
- An improved reporting process was launched in 2010.
- The airport has “evolved” with the development of a safety culture...



How has reporting and data management driven this evolution?



## SMS: Basic principles



- SMS according to ICAO:
  - “An organised set of processes and procedures based upon a principled allocation of resources, that allows the control of safety risks to an acceptable level.”
- Basic objective of an SMS:
  - A **continuous improvement** of the overall **level of safety**
- **Remember:**  
The organisation’s SMS should be decision making tool for management!



## SMS: Basic principles



In order to **achieve continuous improvement** of the level of safety the SMS has to **provide adequate reliable data** and information to the Safety Team as well as the Top Management allowing them to **make decisions and execute the necessary actions** for safety improvement...

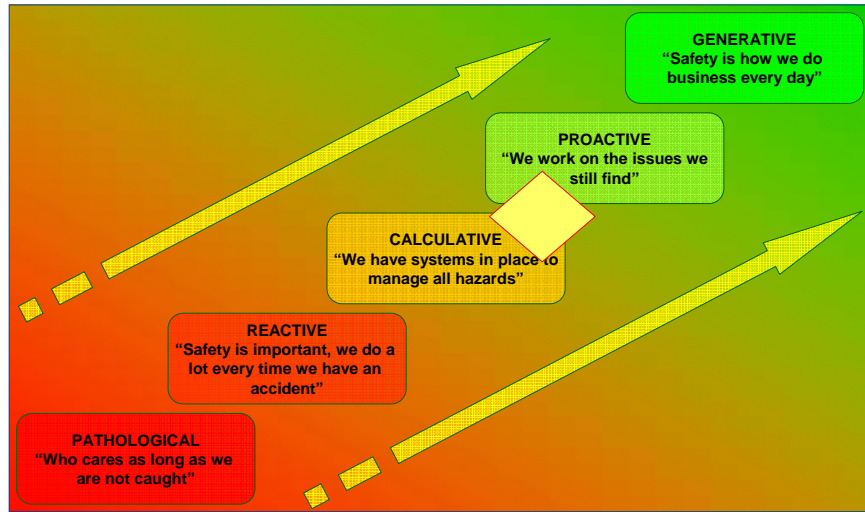
How should the SMS provide "adequate reliable data" ?!?



## GVA SMS: Four Key Pillars



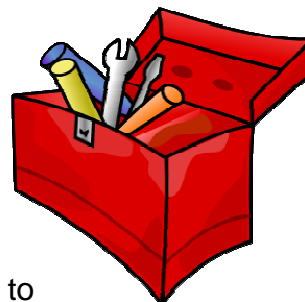
## GVA SMS: Maturity of the system



Where would GVA be placed today?

## GVA SMS: Safety Data Gathering Tools

- Safety Reports
- Hazard identification process
- Change management process
- Safety Working Groups
- Ramp Safety Agents
- These tools allow the Safety Office to receive data and information on the "real time" performance of the system.



The Safety Office has to have eyes and ears everywhere...

## GVA Safety Reporting Tools

- Occurrence reporting
  - Originally implemented in early 2007
  - New system implemented 01.01.2010
- “Surveillance Tarmac” (Ramp Safety Reports)
  - Statistics on ramp activities implemented as of 01.07.2009

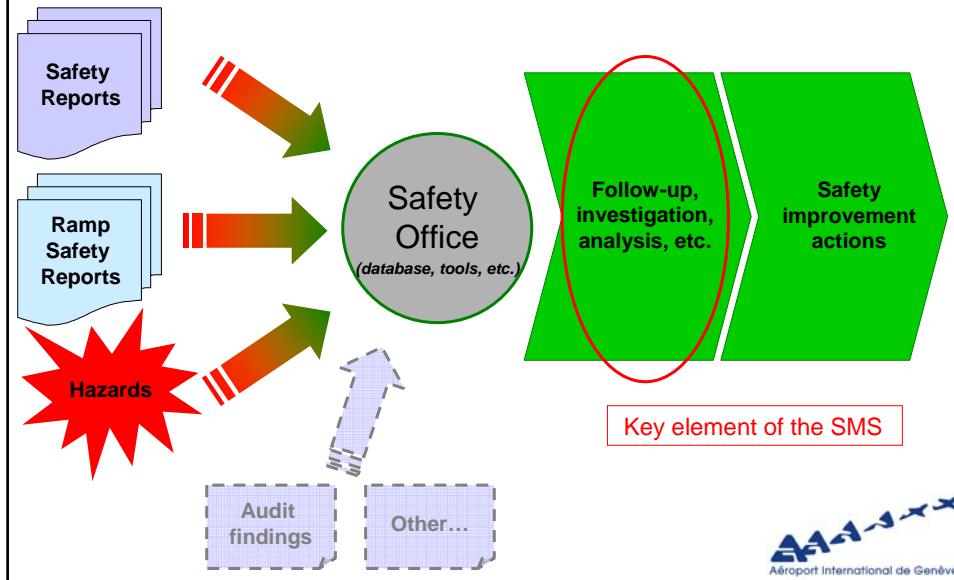


## GVA Safety Reports

- 14 specific criteria are reported
- Each report contains detailed information on:
  - Location
  - Surface conditions
  - Weather conditions
  - Time of day
  - Type of incident
  - Type of aircraft / vehicle
  - Etc...
- All additional information allows the Safety Office to manage the reporting process more accurately and ensure a better follow-up.

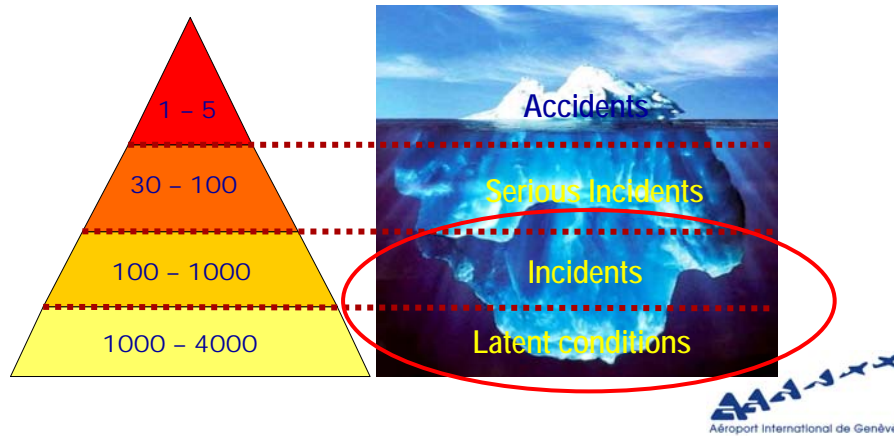


## Safety Data Gathering Process



## GVA Safety Reports

A well defined safety reporting and investigation system should allow the safety team to uncover the “hidden” latent conditions and minor incidents that are not reported but influenced the safety of the system...

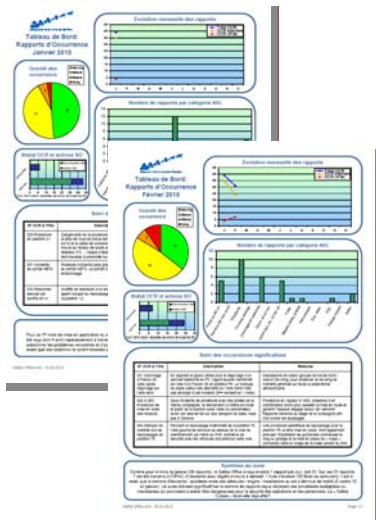


## GVA Safety Reports

- 326 reports in 2010 (to date)
- 110 needed specific follow-up or investigation
- 150 Hazards identified and added to the hazard portfolio
- Almost 600 "Ramp Safety Reports" (to date)
- Combined, all these items provide the GVA Safety Office with the data needed to Monitor Safety Performance and provide management with regular performance reports.



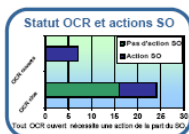
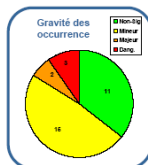
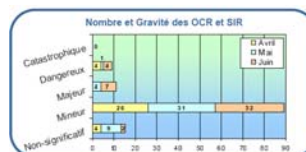
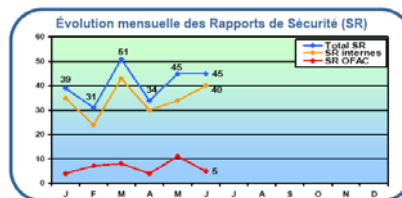
## GVA Safety performance monitoring



- Monthly and quarterly performance reports are provided to management and local Safety Officers.
- The reports are provided to give an overview of the safety actions and their outcomes.
- The purpose of the reports is to monitor the overall performance of the system based on the data received.

## Current indicators used to monitor performance at GVA

- Monthly evolution of the number of reports
- Number of reports per reporting category
- Number of reports by severity
- Number of open or closed reports
- Types of action initiated by the Safety Office
- Environmental conditions related to the types of occurrences



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## How do the statistics provide efficient monitoring?

It equates to a simple formula...



Continuous monitoring of performance will also help in defining the safety objectives (and target level of safety) for the organisation.

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## A practical application...

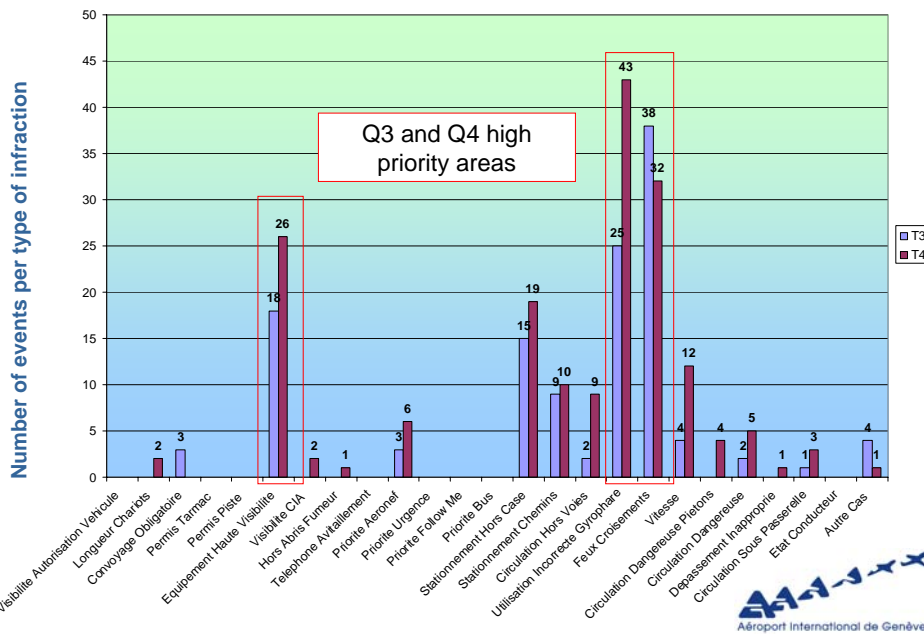
GVA Ramp Safety Report (*Rapports surveillance tarmac*):

- Statistics “reporting” process implemented to identify areas, activities, and specific behavior that is problematic on the airside.
- 100 reports made per month by different services
- Quarterly reports are drawn up and used to:
  - Focus specific safety campaigns
  - Focus specific controls and checks
  - Modify and adapt training activities



  
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## 2009 Q3 and Q4 Ramp safety stats



Accès aire de mouvement :


Port visible  
du badge et  
habit haute visibilité  
obligatoire

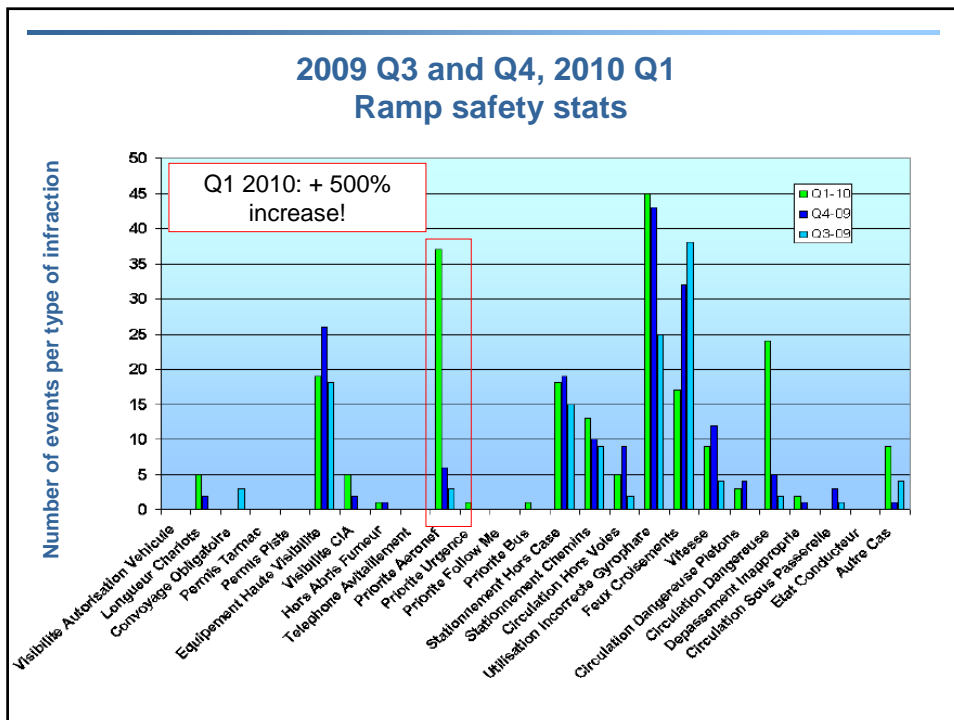
Attention!



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April 2010: New  
communications  
campaign for Safety  
and Security...





## Priorité aux avions!

**July 2010: New communications and training campaign (Refresher training)**

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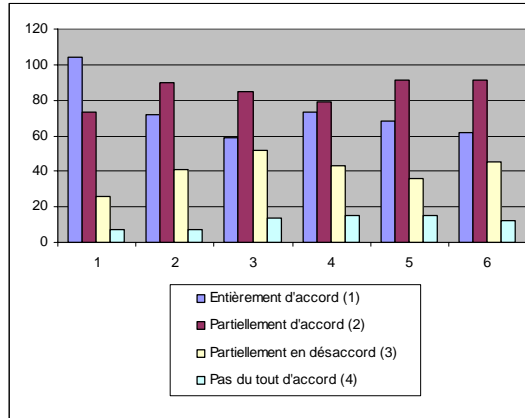
## Reporting and data management driver of change...

- The Safety Culture has evolved within the organisation:
  - Incidents are reported
  - Unsafe situations are reported
  - New hazards are reported
- The fact that noticeable actions and measures have been taken by management to improve safety means that people operating on the site now see safety as an important element of the overall system.

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## Reporting and Safety Culture

1. Do you feel that your team members can easily report risks or safety issues to management?
2. Do members of your team feel comfortable to promptly report safety issues?
3. Do members of your team feel safe from reprisal when reporting safety issues?
4. Do you feel that your management recognizes the risks and safety issues that are reported?
5. Do you feel that your management acts upon the risks and safety issues that are reported?
6. Do you feel that your team members receive feedback on the safety issues that are reported and consider the recommendations important?

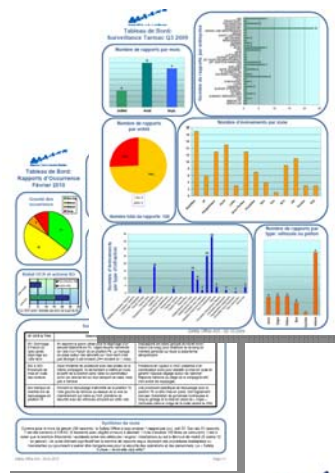


Survey sample: 207 employees across all entities working at the airport



## In conclusion... SMS: A Management Tool

- The **output** of the information gathered through the SMS processes is a vital **performance management tool**
- One of the **objectives** of the SMS is to provide management with key reports and statistics allowing for the **monitoring** of the overall **safety performance** and an **informed decision making** process
- Identifying adequate **performance indicators** can only be done with **reliable data!**





## Questions !?!

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