

# Safety Management System



*Presented by:*



**Jari NISULA**  
Mgr, Airline Safety Mgt Systems

**Constraints encountered during  
assistance of SMS implementation  
in different air operators**



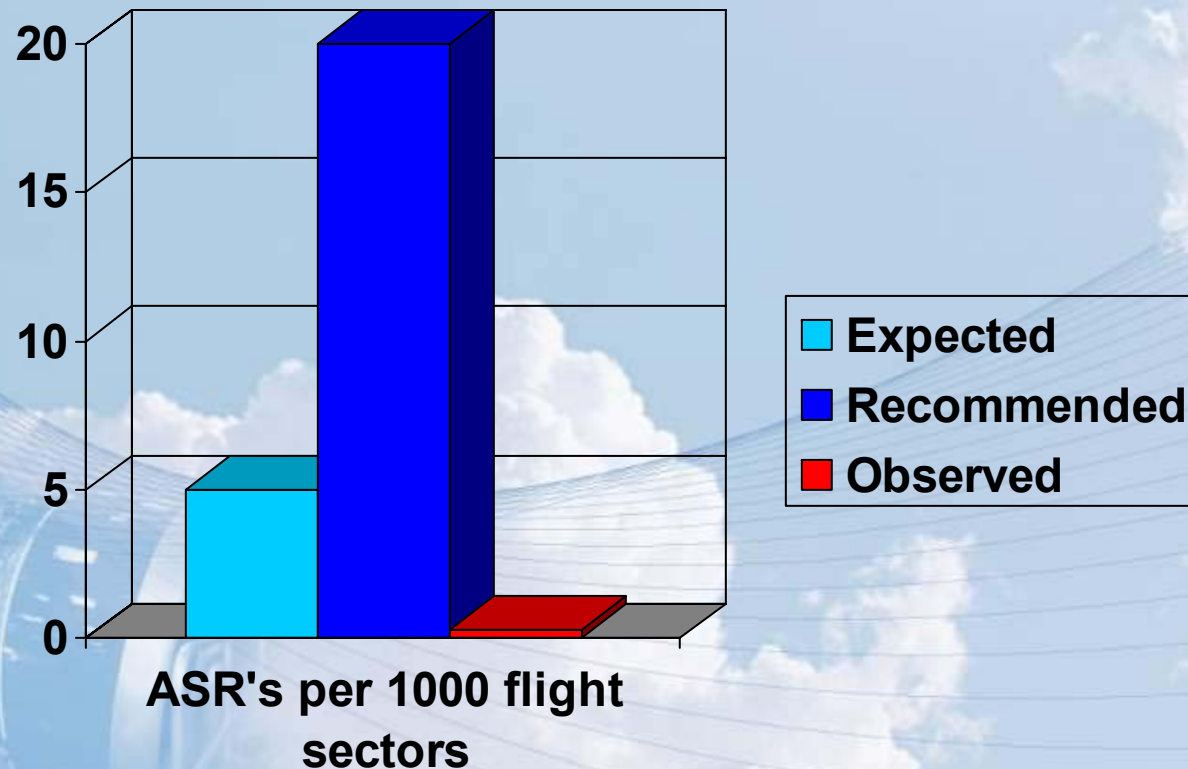
# Preamble

*From Jan-09 onwards, do you think any airline will call its safety activity anything else than a “Safety Management System”?*

*How many airlines do you think will have a robust SMS in place by that time?*

# Preamble

- *“The safety data shall be regularly updated and that the safety data system shall be used to communicate the safety management activity throughout the organization.”*



# Contents

- Exposure to airlines
- Key Observations
- Why should we care?
- What could be done about it?





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# Exposure to airlines

- SMS courses and seminars since 2004
  - Mumbai, Bangkok, San Jose C.R, Manila, Kuala Lumpur, Tianjin, Moscow, Jakarta
- Airline visits and support
- Top Management briefings and seminars
  - >10 sessions
  - Five key Principles
- Working group on Risk Assessment methods
- *South East Asia Regional Initiatives Forum (SEARIF)*
  - SMS *implementation coaching* seminars
  - 7 planned, 3<sup>rd</sup> in Feb-08

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# Positive things

- ICAO achievement
  - New standard and guidance material
  - Finite list of SMS components
- Transport Canada
- Other early SMS-birds in the industry
- Airlines encountered
  - Very welcoming, positive attitude, appreciation
  - Concrete investment
  - Will & skill
  - Access to top management
  - Top management response



# 1. The Gap

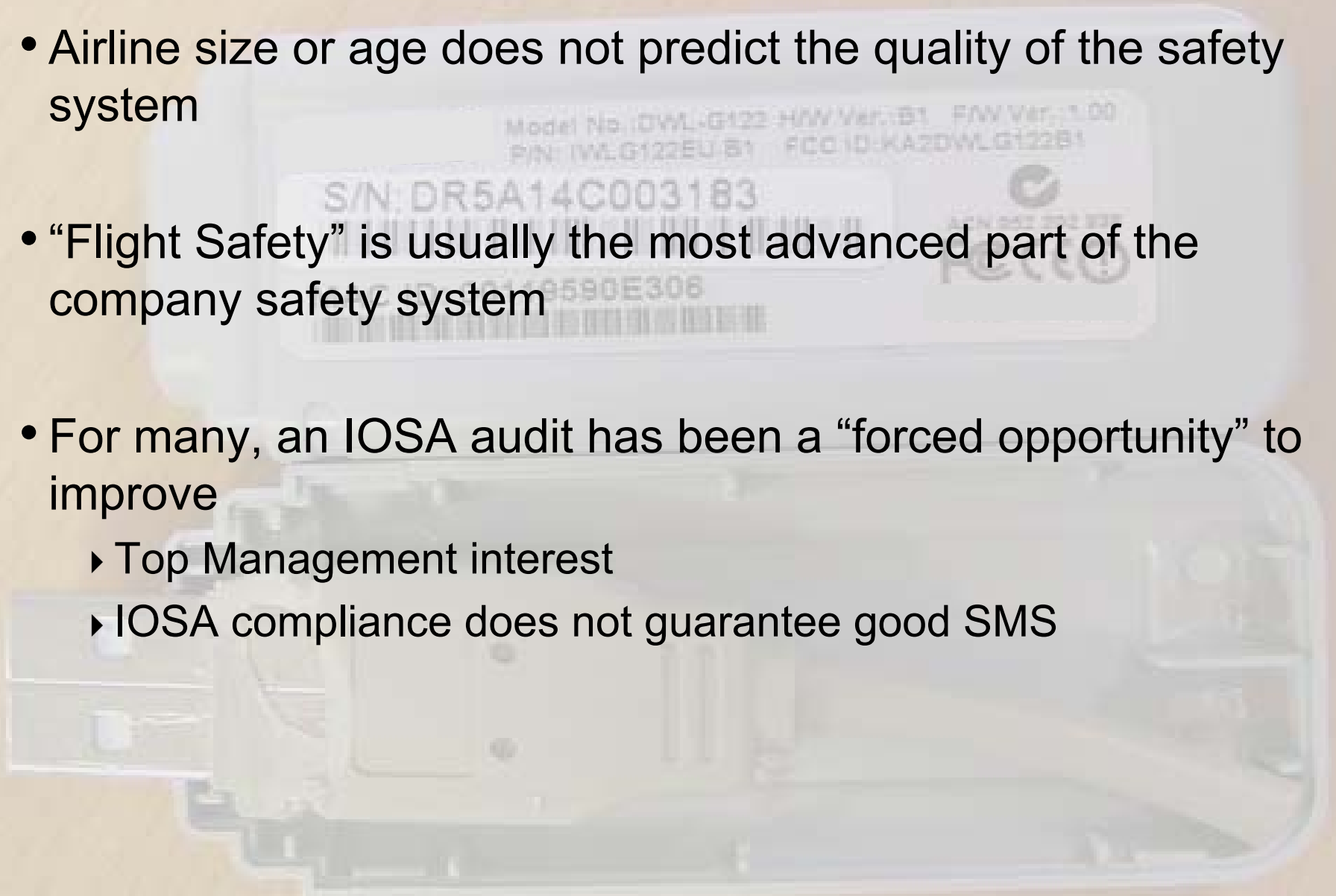
- ***The gap between the current situation at airlines and proper SMS is bigger than many of us might believe***
- Even many “good-looking” and fast-growing airlines are under-developed even compared to pre-SMS good industry practices
- Often Reporting Culture is a challenge (cultural issues)
- ***“Although XYZ has most of the SMS components already in-place, they exist fragmentally with little communication between the components. Hazard Identification & Risk mgt need yet to be set up.”***

# 1. The Gap (cont'd)



# 1. The Gap (cont'd)

- Airline size or age does not predict the quality of the safety system
- “Flight Safety” is usually the most advanced part of the company safety system
- For many, an IOSA audit has been a “forced opportunity” to improve
  - Top Management interest
  - IOSA compliance does not guarantee good SMS



## 2. Maturity of practical SMS guidance

- Performance-based, non-prescriptive **regulation** is great
  - But it does not tell you what to do and how
- SMS **courses** generally focus on principles, concepts and general advice
  - Practical implementation, methods and tools must be planned and managed by the operator
  - *Phased approach to SMS implementation vs. reality*
- ICAO Safety Management **Manual** is a huge achievement
  - Not ideal as a compact handbook (290 pages)



## 2. Maturity of practical SMS guidance (cont'd)

- Concepts and terminology
  - ▶ Hazard-Threat (classic)  $\leftrightarrow$  Hazard (ICAO)
  - ▶ Threat (classic)  $\neq$  Threat (Threat and Error Mgt, LOSA)
  - ▶ Error (J.Reason)  $\neq$  Error (Threat and Error Mgt, LOSA)
  - ▶ Mitigation (classic)  $\neq$  Mitigation (ICAO)
  - ▶ “Predictive/Proactive/Reactive” methods
  - ▶ Safety Assurance
- Some important practical methods are missing
  - ▶ Operational Risk Assessment vs. Flight Data Monitoring

# 1+2 = Gap + Maturity of SMS Guidance

- Some still wonder IF they need to do something
  - “How many resources is this going to take?”
- ***Many want to establish an SMS but don't know exactly how to go about it***
- Downside of SMS-by-regulation
  - Soon **everybody** will have an “SMS”
  - Risk of “minimum” implementation?

### 3. State CAA role

- Challenge: gaining high level of **knowledge**, in order to:
  - Establish the state SMS regulation
  - Give guidance to operators
  - Oversee the various SMS's
  - ...in the right SMS-spirit!
  - ...despite not *operating* the SMS.
- Publishing an existing model regulation as the state regulation would be an easy way to comply with the ICAO standard
  - Effectiveness?
  - Is the Guidance Material going to be used to-the-letter to define acceptable means of compliance?
  - Does every airline Safety Policy have to contain 13 points?

### 3. State CAA role (cont'd)

- Acceptance to renew existing state safety regulation to comply fully with the letter ***and the spirit*** of SMS
- What is going to be the level of harmonization of SMS regulation between different states?
- Bottom line:
  - ▶ Due to the performance-based regulation, the local CAA has a critical quality control function as the accepting body of the operator SMS
  - ▶ Ideally, the CAA could advice operators on *continuous improvement* of the SMS vs. compliance only
  - ▶ In the worst case, the CAA could severely damage the operator SMS



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# Why should we care?

- This opportunity to truly enhance safety management practices at operators should not be missed
  - Soon everybody will have an SMS (at least the name!)
- Rejection of SMS due to confusion and frustration?
  - Macro-level presentation of SMS vs. practical methods
- Disappointment at operators if SMS process does not work
- SMS becoming a new bureaucratic jungle?
- The whole SMS movement in an increasing headwind?

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# What could be done about it?

- Support to air operators
  - From macro-level to practical methods
  - Adapted to current situation at the operator
  - Safety Culture: not easy, but other parts of the SMS support the S.C. evolution
- Support to state CAA's
- Industry level
  - Develop solutions (e.g. Risk Assessment, Maintenance SMS)
  - Terminology harmonization?
  - Sensitive to feedback from the real operation
  - Careful with templates
  - Compact & very pragmatic guidance



A satellite image of Europe at night, showing the continent illuminated by city lights against the dark background of the surrounding oceans. The text "Thank you!" is overlaid in a large, elegant, black script font on the left side of the image.

*Thank you!*

*The views expressed are solely the personal opinions of the author and do not necessarily reflect those of Airbus, any of its affiliates, or its advisors.*