

ES2 WS01-11

# Regulatory framework for Safety KPIs and associated metrics

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EUROCONTROL



The European Organisation for the Safety of Air Navigation



## Overview

- Reg. 549/2004 – Framework Regulation;
- Amended by Reg 1070/2009;
- Art. 11 – Performance Scheme;
- Reg. 691/2010 – Performance Scheme;
- Draft Reg. on Network Manager;
- Reg. 996/2010 on accident and incident investigation;
- Directive 2004/42 on occurrence reporting.



## Performance Scheme

- Four Key Performance Areas:
  - Safety;
  - Capacity;
  - Environment;
  - Cost effectiveness.
- Each KPA has a number of KPIs.
- Performance Review Body is responsible for measurements;
- Shall “coordinate as appropriate” with EASA for safety matters.



## Reference periods

- KPIs, metrics, and targets set for periods of time (Reference Period – RP).
- RP1: 2012-2014, RP2: 2015-2019.
- Each KPI must have targets. Safety has no EU-wide targets for RP1.
- KPIs set and measured at EU, FAB and National level.



## Organisation

- Three Safety KPIs:
  - Effectiveness of safety management;
  - Usage of the RAT severity classification;
  - Just Culture.
- Two TF working to develop metrics:
  - Membership: EC, EUROCONTROL, EASA.
  - E3 TF – work on JC, chaired by EC;
  - E3+ TF – work on the other two, chaired by EASA.



## Timeline and consultation

- SAFREP TF used for validation;
- The PRB to be consulted;
- Saf Team and SRC to be informed;
- Other fora (e.g. NCP WGP) informed as required;
- Proposal to the EC by end-April followed by formal consultation of SSC and ICB.



## Effectiveness of safety management

- Draft concept document under development;
- ICAO SSP framework - basis to define “effectiveness of safety management”;
- Make optimum use of the current SFMS methodology;
- Identify changes needed to adapt to the EU legislation framework;
- The Safety Framework Maturity Survey (SFMS) remains essential.
- More details in Section 3 today.



# ICAO approach

► The KPI will be measured at two levels

State level	Service provision level
<b>1. State safety policy and objectives:</b> <ol style="list-style-type: none"><li>1. State safety legislative framework</li><li>2. State safety responsibilities and accountabilities</li><li>3. Accident and incident investigation</li><li>4. Enforcement policy</li></ol>	<b>1. ANSP Safety policy and objectives</b> <ol style="list-style-type: none"><li>1. Management commitment and responsibility</li><li>2. Safety accountabilities</li><li>3. Appointment of key safety personnel</li><li>4. Coordination of emergency response planning</li><li>5. SMS documentation</li></ol>
<b>1. State safety risk management:</b> <ol style="list-style-type: none"><li>1. Safety requirements for the service provider's SMS</li><li>2. Agreement on the service provider's safety performance</li></ol>	<b>2. ANSP Safety risk management</b> <ol style="list-style-type: none"><li>1. Hazard identification</li><li>2. Risk assessment and mitigation</li></ol>
<b>3. State safety assurance:</b> <ol style="list-style-type: none"><li>1. Safety oversight</li><li>2. Safety data collection, analysis, and exchange</li><li>3. Safety-data-driven targeting of oversight of areas of greater concern or need</li></ol>	<b>3. ANSP Safety assurance</b> <ol style="list-style-type: none"><li>1. Safety performance monitoring and measurement</li><li>2. The management of change</li><li>3. Continuous improvement of the SMS</li></ol>
<b>4. State safety promotion:</b> <ol style="list-style-type: none"><li>1. Internal training, communication and dissemination of safety information</li><li>2. External training, communication and dissemination of safety information</li></ol>	<b>4. ANSP Safety promotion</b> <ol style="list-style-type: none"><li>1. Training and education</li><li>2. Safety communication</li></ol>

SSP management

SMS management



## Use of Safety Maturity

- Mapping between ICAO Management Objectives and Safety Maturity SAs;
- ICAO SSP is far narrower;
- New MOs will be added to extent to areas covered by the SFMS;
- Gaps identified;
- Process still unclear;
- Work in progress.



## RAT severity classification

- Use the RAT for the severity classification;
- Application (yes/no) means:
  - all severity C and above;
- Use of the AST;
- Verification mechanism to be defined.
- Scope of RAT users to be defined;
- More details about the RAT after lunch.



## Just Culture

- Wide review of bibliography;
- Elements selected for metrics must be:
  - Auditable;
  - Verifiable;
  - Repeatable.
- Must be indicative of the presence or absence of JC as described by its definition;



## Just Culture

- Three main areas
  - Policy and its implementation;
  - Occurrence reporting and investigation;
  - Legal/judiciary;



## Just Culture - Policy

- Policy endorsed, published
- Collective agreement
- Roles and responsibilities
- Training



## Just Culture – Legal/Judiciary

- Primary legislation
- Judicial procedures
- Formal agreement



## Just Culture – occurrence reporting

- Reporting and investigation (including automatic reporting);
- Confidentiality;
- Usage of occurrence data (feedback, publication, follow-up).



## Metrics Document

- What – conceptual document;
- How – methodology;
- Who – role of each organisation.



## Development of the Proposal

- Consultation with SAFREP and PRB;
- Information of Safety Team and SRC;
- PRB Safety TF in mid-January 2011;
- SAFREP validation by mid-Feb. and end-March 2011.
- PRB consultation by mid-April;
- EC proposal in April 2011;
- Formal consultation of SSC and ICB;
- Adoption by end-2011.



## Implementation

- KPI prototyping: Jan-Apr 2011;
- EC letter to the States by May 2011;
- Database organisation: Apr-Jun 2011;
- Data collection: Jun 2011-Mar 2012;
- Data validation: Sep 2011-Apr 2012;
- KPI computation: Feb-Jul 2012;
- KPI feedback: Sep-Oct 2012.



## Our support

- Intense pressure for performance at all levels;
- ANSPs might need support and assistance;
- Support available from EUROCONTROL for:
  - RAT – freely available, documented, training;
  - SFMS and associated tools;
  - Aerospace Performance Factor;
  - Cost of SMS;
  - ASMT;
  - Etc.
- Please ask and we'll help.

**Thank you for your attention**