Stakeholder Consultation Workshop on the RCS Draft Regulatory Material

28 November 2008, Brussels, CASTOR meeting room EUROCONTROL
Agenda Item 1: Welcome and Introduction Workshop Objectives

Peter STASTNY
Head of Safety Regulatory Unit (SRU)
Mandate Manager
EUROCONTROL
<table>
<thead>
<tr>
<th>ITEM</th>
<th>TIME</th>
<th>SUBJECT</th>
<th>PRESENTED BY</th>
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<tbody>
<tr>
<td>1.</td>
<td>10h00</td>
<td>Welcome and Introduction&lt;br&gt;Presentation of the Workshop Objectives</td>
<td>P STASTNY (DG/SRU)</td>
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<tr>
<td>2.</td>
<td>10h10</td>
<td>The RCS Mandate</td>
<td>P STASTNY (DG/SRU)</td>
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<td>3.</td>
<td>10h30</td>
<td>Coffee Break</td>
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<td>3.</td>
<td>10h45</td>
<td>The Regulatory Approach and the draft rule</td>
<td>F GIRARD (DG/SRU)</td>
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<td>4.</td>
<td>11h30</td>
<td>Main Outcome of the Formal Consultation</td>
<td>P.STATSNY (DG/SRU)</td>
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<td>5.</td>
<td>12h30</td>
<td>Lunch</td>
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<td>ITEM</td>
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<td>5.</td>
<td>13h15</td>
<td>Discussion of Main Outcome of the Consultation</td>
<td>P STASTNY (DG/SRU)</td>
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<td>F GIRARD (DG/SRU)</td>
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<td>P. NEILAN (PNJ)</td>
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<td>15h15</td>
<td>Coffee Break</td>
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<td>6.</td>
<td>15h30</td>
<td>The Way Forward – Next Steps</td>
<td>Peter STASNY (SRU)</td>
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<td>7.</td>
<td>15h45</td>
<td>Conclusions</td>
<td>Peter STASNY (SRU)</td>
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<td>16h00</td>
<td>End of Workshop</td>
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Workshop Objectives

- Discussion on the **MAIN OUTCOMES** of the Formal Consultation
- Reach a **COMMON UNDERSTANDING** on the way forward
Agenda Item 2: The RCS Mandate

Peter STASTNY
Head of Safety Regulatory Unit (SRU)
Mandate Manager
EUROCONTROL
Mandate by EUROPEAN COMMISSION

EUROCONTROL to assist in the development of

A RISK CLASSIFICATION SCHEME FOR THE DESIGN OF ATM

- EC the 15 March 2006
- accepted by EUROCONTROL the 10th April 2006
to develop appropriate regulatory material regarding the development of a risk classification scheme for the design of ATM, taking into account that:

- EC regulation 2096/2005 contains a severity classification scheme
- ESARR 4 contains a risk classification scheme
- ESARR4 contains a maximum tolerable probability for ATM directly contributing to accidents in the ECAC region.
- maximum tolerable probability for the severity classes 2 to 5 has to be developed
- The requirements for risk assessment and mitigation apply to the ATM functional system and supporting arrangements. The applicability will include the following ATM services ATS, ATFM, ASM and, supported by CNS.
Mandate Requirements (2)

- Specific Issues:
  - To define the risk classification scheme.
  - To assess whether or not similar requirements would be applied to other services (MET, AIS).
  - To define common criteria for using the risk classification scheme to derive design objectives taking into account the level of provided ATM functions and the environment of operations in which it operates (apportionment).
Mandate Requirements (3)

- Specific Issues:
  - to verify compliance with the risk classification scheme and its criteria for use (role of NSA)
  - To clarify relationships between the risk classification scheme for the design of ATM and the requirements of ICAO annex 11 section 2.26
  - To clarify the role of historical data coming from existing European occurrences reporting process in the establishment of RCS
  - To assess the need for refinement of severity classification
  - To identify the timeframe and scope for implementation of the risk classification scheme
Main dates:

- 5th March 2007: End of informal Consultation on the questionnaire addressing the regulatory approach
- 25th May 2007: end of informal Consultation on Regulatory Approach
- 6th June 2007: Regulatory Approach sent to the Commission
- 31st March 2008: End of Formal Consultation on Draft Regulatory Material
- 16 May 2008: workshop, decision of a second consultation
- 18 November 2008: end of second formal consultation
- 28 November 2008: second workshop
Agenda Item 4a: The Regulatory Approach
Overview of the Draft IR

Françoise GIRARD
Safety Regulatory Unit
EUROCONTROL
<table>
<thead>
<tr>
<th>Subjects for prescriptions</th>
<th>Nature of prescription</th>
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<tbody>
<tr>
<td>Subject for prescriptions</td>
<td>Regulatory Coverage of the RCS</td>
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<tr>
<td>Objective of the rule</td>
<td>- to establish a RCS: o To support the development of harmonised systems for ATM service provision o To enable objective Safety Targets to be derived such that future systems introduced in European ATM meet common safety performance</td>
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<tr>
<td>Scope</td>
<td>- Air Navigation Services to all GAT in managed airspaces (SES EC regulation 550/2004)</td>
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<td>Field of application</td>
<td>- The Risk Classification Scheme applies to Air Navigation Services that have the potential to contribute to an aircraft accident - The Risk Classification Scheme applies to people, procedures, equipments - The Risk Classification Scheme applies to the airborne, ground and, if appropriate, spatial components of the ATM functional system, through cooperation with responsible parties</td>
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<tr>
<td>Responsibilities</td>
<td>- The NSA to apportion the EU Safety Target to its own airspace and to allocate a Safety Target to ANSPs operating within its airspace - The ANSP to develop the ATM functional system according to the tolerable rate of the RCS.</td>
</tr>
<tr>
<td>Definitions</td>
<td>Risk Classification Scheme Safety Target Severity Severity Class Severity Classification scheme</td>
</tr>
<tr>
<td>Risk classification scheme</td>
<td>The RCS is used for assessing the safety risk. A risk table is associated with RCS and contains the tolerable rate of occurrence of an effect having a certain severity.</td>
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## Regulatory Approach (2)

<table>
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<tr>
<th>Subjects for prescriptions</th>
<th>Nature of prescription</th>
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<tbody>
<tr>
<td><strong>Regulatory Coverage of Deployment Conditions</strong></td>
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<tr>
<td>Risk matrix</td>
<td>Express the tolerability of a failure of the service provided by the ANSP with those rates: Effects of hazards of Severity 1 are <strong>extremely exceptional</strong>. Effect of Severity 2 to 5 remains within <strong>tolerable rates</strong>.</td>
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<td><strong>Need for Advisory Material</strong></td>
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<td>Development of the quantitative values of RCS at EU level apportionment to different levels of service</td>
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<td>Expression of “tolerable rates” according to different risk models</td>
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<td>Verification process of the NSA</td>
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<tr>
<td><strong>Subjects for prescriptions</strong></td>
<td><strong>Nature of prescription</strong></td>
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<tr>
<td><strong>Regulatory Coverage Relating to Implementation Conditions</strong></td>
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<tr>
<td>Implementation timescales.</td>
<td>The regulation and the advisory material dealing with the Establishment of the rates of RCS at EU level and for different types of service provision, with specific rule for apportionment at NSA level and ANSP level Should be implemented consistently with the entry to force of the Commission Regulation Establishing a Safety Oversight Function by National Supervisory Authorities (the transposed ESARR 1).</td>
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CONTEXT / PREAMBLES

- Regulation (EC) No 1315/2007 requires mandatory safety oversight by national supervisory authorities of the provisions of the RCS regulation.
- Recital (16) of CR stipulates that the maximum tolerable probabilities for ATM defined in ESARR 4 should be updates and mechanisms to apply them in different circumstances should be developed.
- CR defines the features of a risk classification scheme in terms of severity classification, and the concept of maximum probability of the effect of hazards for each severity class.
- wherever practicable, quantitative safety levels are derived but nevertheless supports the use of qualitative approaches in cases where this is not possible.
- Member States agreed to provide a standardised baseline which should ensure that common apportionment methodology and common set of safety targets are agreed and defined at the European level.
- The common apportionment methodology and the common set of safety targets are developed in Community Specifications with the support of EUROCONTROL.
- Member States should ensure that safety targets already established at the national level do not suffer any reduction due to the implementation of this regulation.
**REGULATION BODY**

- **Article 1: Subject-matter and scope**
  - the requirements for the definition and implementation of a risk classification scheme and defines the safety target for accidents with an ATM contribution and the tolerable risk of incidents for the functional system.
  - This regulation shall apply to organisations providing services to flights operating as general air traffic.
  - The organisations shall use the applicable national risk classification scheme:
    - during risk assessments for the design of new functional systems and the design of changes to existing functional systems;
    - in a manner that addresses airborne, space-based and ground-based ATM systems through cooperation between responsible parties.
  - In respect of functional airspace blocks that extend across the airspace falling under the responsibility of more than one Member State, the Member States concerned shall conclude an agreement on the definition and the use of a risk classification scheme and its supervision.

- **Article 2 Definitions**
Article 3: Establishment of risk classification scheme
- Without prejudice to Regulation (EC) No 2096/2005, each Member State shall establish a risk classification scheme which:
  - Uses a common set of safety targets as a minimum baseline to define the maximum risks to be tolerated in each severity class;
  - Defines the tolerable risk for accidents due to ATM contribution as ‘highly improbable’.
- The Member State shall not degrade its safety targets due to the implementation of this Regulation.
- Member States shall, based on the risk classification scheme referred to in paragraph 1, apportion the national safety targets.
- Member States shall conduct periodic assessments of their risk classification schemes, including apportionment.

Article 4: Additional Requirements
- Organisations shall:
  - implement RCS as part of their safety management systems or risk assessment and mitigation processes.
  - provide at the request of the national supervisory authority, all the relevant evidence W/R use of RCS.
REGULATION BODY

- Article 5 Amendment to Common Requirements
- Article 6 Entry into force

- This Regulation shall enter into force on the 20th day following that of its publication in the Official Journal of the European Union.
- This Regulation shall be binding in its entirety and directly applicable in all Member States.
Agenda Item 5: Main Outcome of the 2nd Formal Consultation

Peter STASTNY / Françoise GIRARD
Safety Regulatory Unit
EUROCONTROL
Responses per stakeholders

2nd Formal Consultation

First Formal Consultation
Responses per category

2nd Formal Consultation

First Formal Consultation

Not acceptable Under any circumstances 17%
Acceparable without amendment 34%
Acceptable but would be improved with amendments 18%
Not acceptable but would be acceptable with amendments 55%
Not acceptable Under any circumstances 9%
Agenda Item 5: Outcome of the previous formal Consultation

Peter STASTNY / Françoise GIRARD
Safety Regulatory Unit
EUROCONTROL
Main Outcome of the Formal Consultation

- List of issues raised by the formal consultation on draft implementing rule
- Comments on advisory material
Issues on the Rule (1)

- The definitions in the rule

- The scope of the implementing rule
  - To keep the scope of the EC regulation 2096/2005

- The Apparent Mandatory Nature of the Community Specification
  - CS becomes mandatory because they are referred by the rule

- Quantitative and Qualitative safety targets
  - Need to better take into consideration the qualitative aspect in the recital

- Safety target for severity Class 2 – 4 effects
  - target for severity 1 ,
  - severity 2 to 4 are intermediate values (according to the risk model)
Issues on the Rule (3)

- **Apportionment**
  - Applicability and scope ambiguous
  - Methodology
- **Periodic assessment (at European Level)**
  - Purpose, periodicity
- **Entry into force**
  - Agreement on advisory material before the entry into force
  - Dates are too ambitious.
Issues on the Advisory Material

- **Maturity of advisory material**
  - Data base and baseline for calculation
- **Apportionment**
  - Methodology not approved
Agenda Item 6: Discussion of Main Outcome of Consultation

Peter STASTNY / Françoise GIRARD
Safety Regulatory Unit
EUROCONTROL
Main issues (1)
Definitions

- No agreement on the definition of the Risk Classification Scheme
- Definition of apportionment
- « highly improbable » cannot apply to a frequency
- No definition of a « change » ...
Main issues (4)

The scope

- The rule applies to GAT in controlled airspace
- The scope of the Regulation differs from the scope of the Common Requirements.
- The scope implicitly includes AIS and MET
- The responsible parties should include EU and non EU operators
- The rule shall identify and account on one hand the organisation contributing to the safety risks (through hazards) and on the other hand the organisation having the end responsibility for safe separation in the operation
- Apportionment should be taken on board by FAB agreements
Main issues (7)

Apparent Mandatory nature of Community Specifications

- Is there a legal basis for importing the community specification concept, as defined in the interoperability regulation, into this regulation?
- The CS has not been presented for consultation
- The drafting of the rule makes the CS mandatory (legal penalties)
There were a number of comments relating to the need to consider the qualitative aspect.

Qualitative safety objectives shall complement quantitative safety objectives.

Risk assessment of people and procedures should use qualitative targets.

The proposed preamble 6 should be reinforced.
Main issues (9)
safety targets for severity 2 to 4 effects

- Safety Targets for incidents are not defined in the Regulation although the scope of this article indicates that they are.

- Severity 2 to 4 are operational outcomes and do not refer to design outcomes (as indicators of the possible progression through safety barriers towards the accident.)

- The data available to measure level 2 – 4 events is unreliable and is not robust for the measurement.

- Setting a value of 10-5 for severity 2 events may contribute more than is acceptable to the risk of a level 1 event occurring.
Several types of apportionment exist

- EU safety target => apportioned by states => apportioned by organisations and organisations define their safety objectives when necessary

- Remove explicit reference to functional system in the definition.

- The rule makes the apportionment compulsory
The purpose of the "periodic assessments" is undefined at European level
Main issues (13)
Entry into force

- The timescale for entry into force is impractical and should be dependent on the availability of a harmonised methodology.

- The Regulation should not enter into force until the “common apportionment methodology and the common set of safety targets” have been agreed in the supporting Community Specification.

- The timescale is not realistic
The database used is not adequate as a basis for the RCS. Incident reporting in Europe is incomplete, varies by State and is inconsistent in its allocation of severity classes.

Apply safety target for 2020 for temporary changes

To give the formula used in the calculation

Indirect ATM contributions for the data to be used is not clear.

Correspondence ESARR2 and ESARR4

Need example of apportionment in Advisory Material.
Agenda Item 7: The Way Forward - Next Steps

Peter STASTNY
Head of Safety Regulatory Unit
Mandate Manager
EUROCONTROL
The way forward

- Finalisation of the SOR and distribution to the attendance of the Workshop the first week of December.

- Updates of regulatory material (Draft implementing rule) to address received comments

- Update the Advisory Material

- Finalisation of the Justification Material

- Delivery of the Final Report to EC Mid December
Agenda Item 8: Conclusions

Peter STASTNY
Head of Safety Regulatory Unit
Mandate Manager
EUROCONTROL