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RMT.0464 ATS Requirements Set up, Objectives, Deliverables, Deadlines

Fabio GRASSO
EASA ATM/ANS Regulations Officer
NPA 2016-09 Consultation Workshop
30.11.2016

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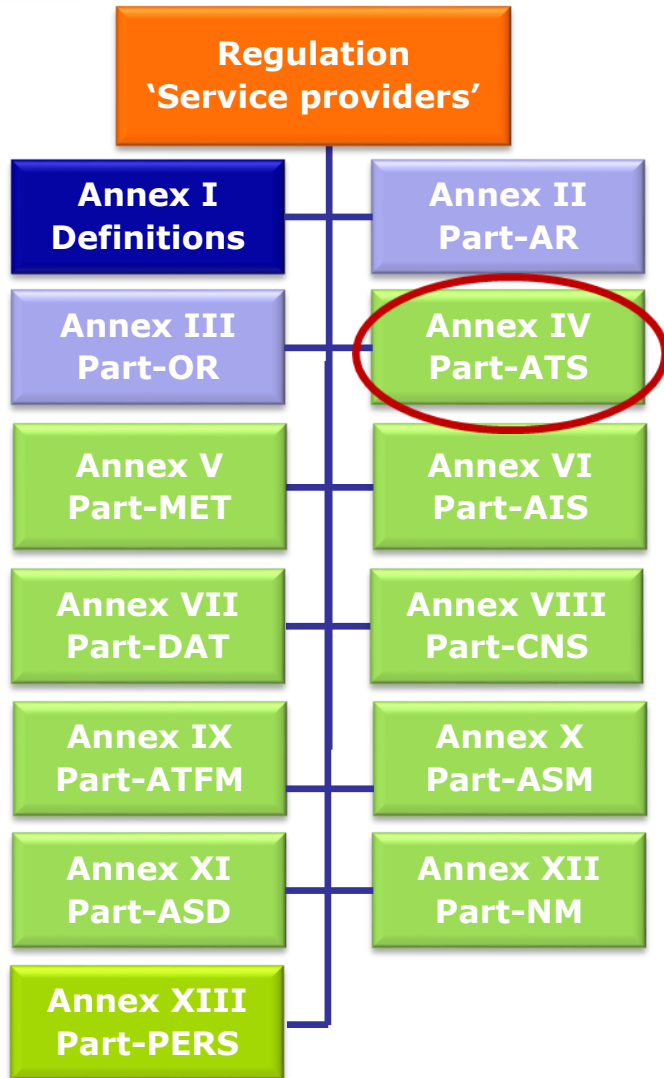


ATS provision - Today

- EU Member States obligations towards the Chicago Convention
- SES Legislation
- The EASA Basic Regulation
- Reg. (EU) No 1035/2011:
 - ATS organisational requirements in Annex I and Annex II
 - ATS technical requirements in Annex II, Chapter 4: working methods and operating procedures compliant with:
 - ✓ Reg. (EU) No 923/2012 (SERA)
 - ✓ ICAO Annex 10, Volume II
 - ✓ ICAO Annex 11 – **No reference to PANS-ATM**



ATM/ANS CRs – Regulation 2016/1377



Organisation Requirements for ATS providers

- Annex III (General)
- Annex IV Subpart A (ATS-specific)

Technical Requirements for ATS providers:

- Annex IV Subpart B
- Reference to ICAO ANNEX 10 Volume II, Annex 11 and SERA maintained

Regulatory action ongoing (RMT.0464) to fully implement the regulatory mandate in EASA BR (ERs in Annex Vb 2.(c)) and to remove referencing



RMT.0464 – ToR Objectives

- To introduce a complete set of measures implementing the ERs in the EASA BR Annex Vb 2.(c) concerning the provision of ATS;
- To establish common EU ATS requirements by transposing the relevant ICAO provisions, thus contributing to their harmonised implementation, as a basis for EU aviation law;
- To harmonise ATS provisions based on mandatory (IRs) and flexible (AMC and/or GM) requirements; and
- To establish proportionate and cost-efficient rules.
- **Outcome will amend Reg. 2016/1377 and the related EASA ED Decision (yet to be published)**



RMT.0464 – ToR Tasks

- Analysis and, where appropriate, transposition of provisions in ICAO Annex 10 Volume II, Annex 11, Docs 4444, 7030 EUR
- Analysis of differences filed by EU MS to Annex 11 and identification of commonalities to be introduced in the EU law
- Identification of gaps and, where necessary, development of new provisions complementing those transposed from ICAO
- Establishing correlation between originating ICAO provisions and the proposed EU provisions
- Ensuring consistency with EU legislation (e.g. SERA, SES)



RMG.0464 set up and activities

- RMG.0464 composition established based on nominations received from ATM/ANS advisory bodies
- Includes representatives from:
 - **National Aviation Authorities (2)**
 - **ANSPs (2)**
 - **CANSO (3)**
 - **Unions (2)**
 - **EUROCONTROL (2)**
 - **EASA (2)**
- **11 meetings** held, from September 2014 to February 2016
- Bilateral meetings with EUROCONTROL on specific subjects
- **Thematic meeting on AFIS** held on 17.03.16



RMT.0464 – Deliverables & Deadlines

- RMT.0464 activities initiated in **Q3 2014**
- **NPA 2016-09** published on **14.09.16**
- **Public Consultation** open until **28.02.17**, possibly followed by **focused consultation, where necessary**
- **CRD & Opinion: Q4 2017**
- **Commission IR: 2018** (subject to EC processes)
- **EASA ED Decision: 2018** (following publication of the IR)
- **No applicability date for ATS requirements is indicated in the NPA, given the ongoing regulatory process for ATM/ANS CRs and ATS requirements. It will be proposed with the Opinion**



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Interrelation between draft ATS requirements and SERA

Emanuil RADEV
EASA ATM/ANS Regulations Officer
NPA 2016-09 Consultation Workshop
30.11.2016

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SERA – PART-ATS interrelation

- Phased approach
 - SERA Part A - Annex 2
 - SERA Part B - Annex 11 and Annex 3 – partially
 - SERA Part C - Annex 10 Volume 2 PANS ATM, Doc 7030 – partially
- Selection of provisions from ICAO Annexes other than Annex 2 of 'rules-of-the-air' nature to address collective action (e.g. ATS/pilots)
- Provisions already transposed from Annex 11 and PANS-ATM thoroughly evaluated by RMG.0464 to decide whether:
 - Referencing
 - Duplicate SERA (same provision in both rules)
 - Propose a change to SERA
 - Propose a change and duplicate SERA



SERA – PART-ATS interrelation

➤ **Referencing**

Solution avoided to establish clarity on applicable requirements and readability (e.g. reference in ATS.TR.160(d)(9) to SSR transponder failure procedures – Section 13)

➤ **Duplication**

Used in cases where the logic of material would have been damaged if referring to SERA (e.g. in ATS.TR.100 ATS objectives)

➤ **Propose a change to SERA**

Identified ICAO provisions considered of SERA-nature not in this NPA – Considered for transposition by the future SERA maintenance RMT (e.g. PANS-ATM Ch. 4.11 ‘Position reporting’)

➤ **Propose a change and duplicate SERA**



Propose a change and duplicate SERA

➤ Proposed amendments to **SERA IRs**

- Recital
- Definition of 'controlled aerodrome'
- Annex
 - ✓ SERA.8005 Operation of air traffic control service
 - To explicitly recognise the issuance of INSTRUCTIONS as an ATC task
 - To reflect the specificity of separation minima in the case of operations on parallel and near-parallel operations
 - To prevent that geometric height information is used for separation purposes
 - ✓ SERA.8012 Application of wake turbulence separation
 - To represent that wake turbulence separation is not to be applied to specific categories of flights under specified circumstances, when only caution of wake turbulence is to be issued



Propose a change and duplicate SERA

- SERA.8015 Air traffic control clearances
 - ATC responsibility to issue clearances, when vectoring or assigning direct routing, assuring the prescribed obstacle clearance
 - Alignment with the amended originating PANS-ATM provision concerning phraseology for ATC clearance
- SERA.9005 Scope of flight information service
 - Introduces the obligation to provide, within the scope of FIS, information to aircraft displaying an abnormal condition or configuration
- SERA.14095 Distress and urgency radiotelephony communication procedures
 - Establishes the conditions for the use of the VHF emergency channel 121.5Mhz
- Proposed **GM** amending **SERA ED Decision**



SERA/PART-ATS - Maintaining coherence

- Duplicating provisions is challenging in terms of maintaining coherence between the two sets of rules
- The future maintenance of both SERA or PART-ATS implies that both Regulations may be amended with a single regulatory proposal, as far as the duplicated requirements are concerned
- EASA fully committed to this task



Annex 11 provisions for other ATM/ANS

- Provisions from Annex 11 allocated to other ATM/ANS-related services or regulatory packages such as:
 - PART ASD - Chapter 2.5 'Designation of the portions of the airspace and controlled aerodromes where air traffic services will be provided'; Chapter 2.13 'Establishment of change over points'
 - PART AIS - Chapter 2.19 'Aeronautical data'; Chapter 2.28 'Common reference systems' (with NPA 2016-02 proposed for inclusion in Annex III OR)
- Indication available on the Checklists Annex 11 and PANS ATM



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Transposing ICAO ATS provisions into EU legislation

Jyrki Paajanen
DG MOVE - Policy Officer
NPA 2016-09 Consultation Workshop
30.11.2016

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Transposition – WHY?

- Transposition of ICAO Annexes is a policy adopted for EU aviation legislation (e.g. OPS, ATM/ANS CRs, SERA...)
 - provides legal clarity and common differences
 - adapts ICAO text to direct implementation in EU law

- Meets objectives of the EASA BR and SES rules:
 - assist states in fulfilling their obligation towards the Chicago Convention

- For PART-ATS:
 - introduces specific requirements to replace the generic reference to ICAO Annexes in Reg. 1035/2011 and/or Annex III of 2016/1377
 - consistent with other relevant EU rules (e.g. SERA, SES)
 - explicitly addressed in the ToRs of RMT.0464 (09.07.14)



ICAO provisions transposed

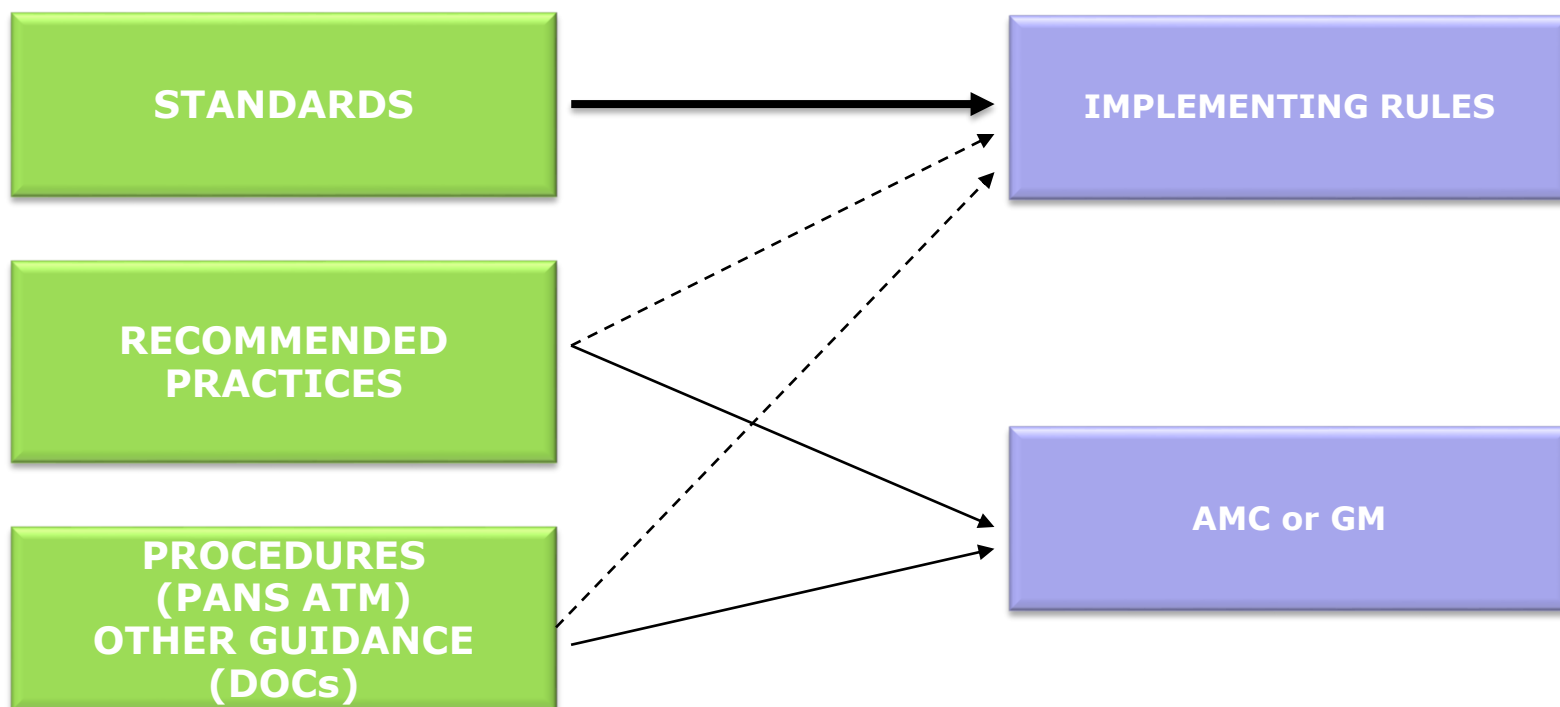
- Selected provisions from:
 - Annex 10 Volume II
 - Annex 11 (extensively, complementing SERA transposition)
 - PANS-ATM Amendment 7 (extensively, complementing SERA transposition)
 - Doc 7030 EUR
 - Circular 211/AN-128
 - EANPG documents

- Some overlap with e.g. SERA to provide for consistent/readable text
 - Underlines need for synchronised maintenance in the future



Transposition – HOW?

- Detailed analysis of ATS-relevant ICAO documentation in RM-group
- Selection of measures to be transposed on a case-by-case basis
- Proposed transposition as IR/AMC/GM not in contradiction the with the legal nature of the original ICAO provisions





Transposition – HOW?

- Proposed measures include only 3 differences with the transposed ICAO Standards (Annex 10 Volume II and Annex 11)
 - N.B. If State adopts AltMoC, it will be responsible for publishing and filing its own differences to ICAO as applicable.
- Recommended Practices and Procedures transposed only when relevant for EU harmonisation
- Clarity provided by clear allocation of responsibility (State, ATS provider, ATS Unit, ATCO) i.a.w. EU's legal principles
- Coordination with other RMTs (SERA, ASD, AIS, etc.) for consideration of Standards not selected as suitable for Part ATS
- Tracking of transposition of Annex 11/PANS-ATM is in the Checklists published as information material
 - useful also for ICAO audits



Cross-referencing ICAO transposition in the NPA

Annex 11 Checklist sample

SARP identifier	Annex 11 Amendment 49	Differences between SARPs and proposed transposition	Proposed transposition into EU ATS Requirements
	Air Traffic Services		
	Standard, <i>Recommended Practice</i> , Notes, <i>transposed in SERA</i>		
2.1.4	Where air traffic services are established, information shall be published as necessary to permit the utilization of such services.		The transposition as ATS IR ATS.OR.125(a), is proposed as follows: The air traffic services providers shall provide to the relevant AIS providers information to be published as necessary to permit the utilisation of such air traffic services.

NPA File (B) sample

ATS.TR.200 Application

ATC service shall be provided:

- (a) to all IFR flights in airspace Classes A, B, C, D and E;
- (b) to all VFR flights in airspace Classes B, C and D;
- (c) to all special VFR flights;
- (d) to all aerodrome traffic at controlled aerodromes.

(Annex 11 — Section 3.1) (transposed as SERA.8001)

ICAO Originating provision(s)





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RMT.0464 ATS Requirements NPA 2016-09 structure

Fabio GRASSO
EASA ATM/ANS Regulations Officer
NPA 2016-09 Consultation Workshop
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Structure of NPA 2016-09

Consists of 2 separate files, as follows:

NPA (A)

1. Procedural information
2. Explanatory Note
3. Regulatory Impact Assessment (RIA)
4. References

NPA (B)

1. Proposed amendments (IRs, AMC, GM) to Regs. 2016/1377 & 923/2012 and associated ED Decisions
2. References

Questions to stakeholders on specific subjects are included in **NPA(A) Chapters 2 and 3**

Stakeholders' feedback on such questions will contribute to the finalisation of the EASA Opinion

Please provide your feedback!

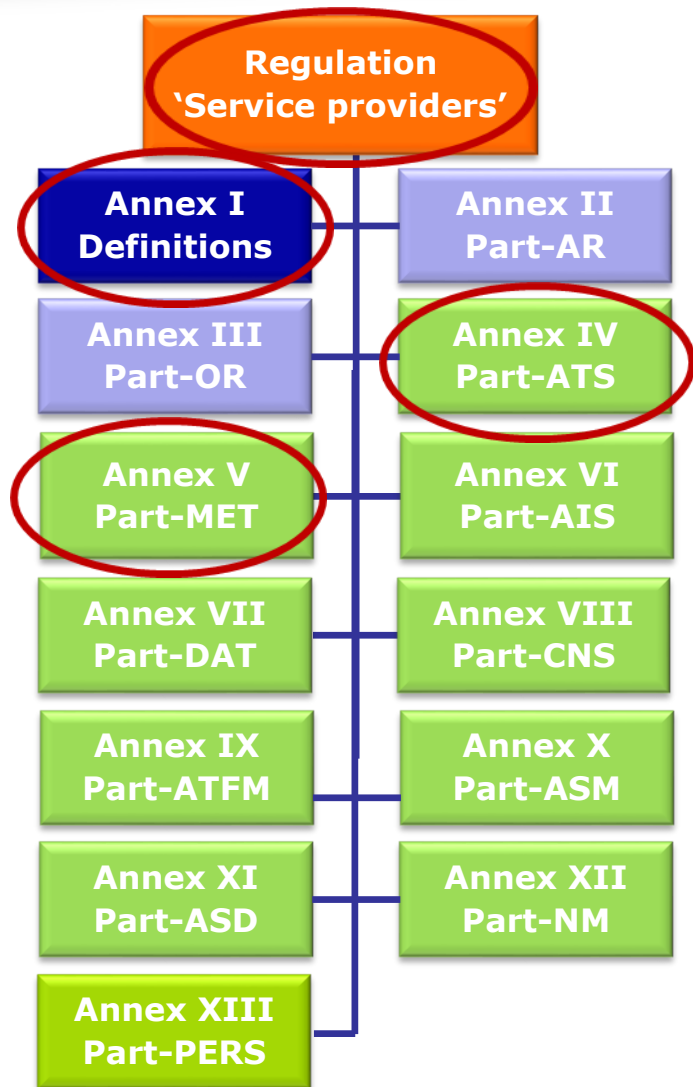


Published with the NPA

- **Annex 11 Checklist**
- **PANS ATM Checklist**
- **Analysis of EASA AFIS Survey**



NPA 2016-09(B) Amendments to ATM/ANS CRs



Proposed **Implementing Rules** amending **Reg. 2016/1377** affect:

‘Cover Regulation’ – **Chapter 1.1.1**

Annex I ‘Definitions’ – **Chapter 1.1.2**

Annex IV Subpart A ‘ATS.OR’ – **Chapter 1.1.3**

Annex IV Subpart B ‘ATS.TR’ – **Chapter 1.1.4**

Annex V Subpart A ‘MET.OR’ – **Chapter 1.1.5**

Proposed **AMC/GM** amending **ED Decision** concerning ATM/ANS CRs in **Chapter 1.3**

Link between IRs (Chapter 1.1) and the associated AMC/GM(Chapter 1.3) is provided in the Explanatory Note – NPA(A) Chapter 2.



Subpart A – ATS.OR

Section 1 – General

Section 2 – Safety of services

Section 3 – HF requirements

Section 4 – Communication reqs.

Section 5 – Information reqs.

Subpart B – ATS.TR

Section 1 – General

Section 2 – ATC service

Section 3 – FIS

Section 4 – Alerting service



Existing requirements with Reg. 2016/1377



New requirements proposed with the NPA on PART-ATS



NPA 2016-09(B) - Amendments to SERA

- Proposed amendments to **Implementing Rules of Reg. 923/2012 SERA in Chapter 1.2** affect:
 - Recital
 - Definitions (Article 2)
 - Annex
 - ✓ SERA.8005 Operation of air traffic control service
 - ✓ SERA.8012 Application of wake turbulence separation
 - ✓ SERA.8015 Air traffic control clearances
 - ✓ SERA.9005 Scope of flight information service
 - ✓ SERA.14095 Distress and urgency radiotelephony communication procedures
- Proposed **GM** amending **SERA ED Decision in Chapter 1.3**



Consistency with other EU legislation

- Proposed measures developed consistently with:
 - SES Regulations
 - EASA BR, ATM/ANS Common Requirements, other Implementing Rules
 - SERA – (specific close coordination)
 - Upcoming amendments to ICAO documentation (particularly PANS ATM Amendment 7)
- Reminder:
 - SERA requirements address collective action (e.g. ATS/pilots)
 - ATS requirements address ATS providers/Units/staff
- Analysis allowed the identification of provisions to be proposed for transposition as SERA in the future maintenance mechanism



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NPA 2016-09 Content 'Regulation' and 'Definitions'

Fabio GRASSO
EASA ATM/ANS Regulations Officer
NPA 2016-09 Consultation Workshop
30.11.2016

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Amendments to Regulation (1)

- Introducing a recital to emphasize the close interrelation and complementarity between SERA and PART-ATS
- Requirements addressed to Member States from Annex 11 Standards concerning:
 - Determination on the needs for ATS - Article 3(1b)
 - ✓ GM: Explicit indication of UNICOM as non-ATS facilitation at local aerodromes
 - ✓ May operate in areas when no A/G communication is required
 - Coordination between Military Authorities and ATS - Article 3(1c)
 - ✓ Information exchange to minimise interceptions and to assist acft as necessary
 - Coordination of activities potentially hazardous to civil traffic – Article 3(1d)
 - ✓ Arrangements to coordinate such activities between affected units/parties
 - ✓ Arrangements for promulgation of related information
 - ✓ High seas: responsibility of MS in charge of ATS provision



Amendments to Regulation (2)

➤ Article 3(1d) Point (c)

- MS responsibility to prevent adverse effect of laser emissions on flight operations
- Corresponding provisions in Reg.139/2014 do not address malicious intents
- **Questions to stakeholders are posed in Chapter 2.7.1.1 of NPA(A)**
 - ✓ Is it necessary to include the provision in the EU aviation regulatory framework?
 - ✓ Is ATM/ANS the appropriate regulatory framework for this purpose?
 - ✓ EASA request for information on current MS practices to address the issue



Amendments to Annex I - Definitions

- Proposed definitions mainly transposed from ICAO Annex 11, PANS-ATM
- Consistency with definitions in SERA and ATM/ANS CRs ensured
- Origin and interrelation indicated in the Checklists
- Where appropriate, amendments to existing definitions are proposed, namely:
 - **Controlled aerodrome (in SERA Article 2 .57)**
 - ✓ In presence of an aerodrome where ATS is provided, including controlled aerodromes, it is expected to have at all times an associated airspace and the designation of a provider in charge of rendering the services
 - **Aerodrome Flight Information Service (in Reg. 2016/1377 Annex I .6)**
 - ✓ To clarify that AFIS is a service to be delivered **ONLY** by a provider designated in accordance with Article 8(1) of SES Reg. 550/2004



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NPA 2016-09 Content Organisation requirements for ATS providers

Fabio GRASSO
EASA ATM/ANS Regulations Officer
NPA 2016-09 Consultation Workshop
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Amendments to ATS.OR

- Amendments concern ATS Organisation Requirements in Annex IV Subpart A
- Mainly originated from:
 - Section 1 'General' – ICAO Annex 11 Chapters 2 and 3, PANS ATM Chapter 4
 - Section 4 'Requirements for communications' – ICAO Annex 11 Chapter 6
 - Section 5 'Requirements for information' – ICAO Annex 11 Chapter 7
- Extensive AMC and GM are provided, mainly originating from Annex 11 and PANS-ATM



ATS.OR – Section 1 ‘General’

- ATS.OR.110 Coordination between aerodrome operators and ATS providers
 - To coordinate activities, services provided and data/information exchange
 - Mirrors ADR.OR.C.OO5(b)(1) of Reg.139/2014 ADR
 - AMCs address coordination for, inter alia:
 - ✓ Establishment of standard taxi routes;
 - ✓ Low visibility operations and related procedures;
 - ✓ Exchange of information on the safe use of manoeuvring area
 - ✓ Coordination ATS-Apron management services (Opinion 02/2014, ADR.OPS.020)
- ATS.OR.115 Coordination between military authorities and ATS providers
 - Information exchange on flight plans/data for identification purposes
 - Complements Article 3(1c) and ATS.TR.120



ATS.OR – Section 1 ‘General’

- ATS.OR.120 Coordination between meteorological and ATS providers
 - Provision of agreed set of information on meteorological elements observed by ATS personnel or reported by aircraft to MET services
 - Timely provision of information on meteorological phenomena of operational significance, observed by ATS personnel or reported by aircraft, not included in the aerodrome meteorological report
 - Provision of information and close coordination between the ATS and MET entities concerned on volcanic pre-eruption, eruption and ash cloud



ATS.OR – Section 1 ‘General’

- ATS.OR.125 Coordination between aeronautical information services and ATS providers
 - ATS provider responsibility to timely provide AIS relevant information, and changes thereto, on services under its responsibility
 - Specific changes to ANS system be timely notified prior implementation
 - GM: UNICOM to be notified
- ATS.OR.130 Time in ATS
 - Address availability and performance of clocks, time checks tolerance values and procedures
- ATS.OR.135 Contingency arrangements
 - Complements general requirements in ATM/ANS.OR.A.070 to specify that ATS plans are to be developed in coordination with neighbouring ATS providers and with airspace users



ATS.OR – Section 1 ‘General’

- ATS.OR.140 Failure and irregularity of systems and equipment
 - Further details the general requirement in ATM/ANS.OR.A.070(b)
 - Concerns communication, navigation and surveillance systems or any other safety-significant systems
 - Aims at quick mitigation of possible safety effects on operations
 - Expanded to ATS – ICAO originally addressed only ATC
- ATS.OR.145 Operation of ATC service
 - Display of information on aircraft movements and records of issued clearances to ATCOs to meet ATC objectives
 - Participation of ATS provider to RVSM Monitoring Programme
- ATS.OR.150 Transfer of responsibility for control
 - Procedures for transfer of control and of ground communication to be stipulated in letters of agreement and included in operation manuals



ATS.OR – Section 4 ‘Communications’

- ATS.OR.400 Aeronautical mobile service (air–ground communications) — General
 - Use of voice and/or data link -‘Radiotelephony’ replaced by ‘voice’, i.a.w. SERA.6001
 - ATS surveillance service requires high level communication reliability and adequate back-up facilities
 - Obligation to record ATC communication
 - When so prescribed by CA, obligation to record FIS/AFIS communication
- ATS.OR.410 Aeronautical mobile service (air–ground communications) — For flight information service
 - ‘Anywhere’ replaced by ‘to the practicable extent and as approved by the CA’
 - Air-ground communication coverage for AFIS defined
- ATS.OR.415, 420, 425 Aeronautical mobile service for Area, Approach, Aerodrome control services
 - No difference with original ICAO provisions



ATS.OR – Section 4 ‘Communications’

- ATS.OR.430, 435, 440, 445 Aeronautical fixed service (ground–ground communications)
 - By means of direct speech and/or data link communication
 - General requirements, requirements for communication within FIR and between FIRs – Between ATS and non-ATS units/entities
 - AFIS explicitly addressed
- ATS.OR.405 Very high frequency (VHF) emergency channel
 - Details the use of the channel – only for specified emergency circumstances
 - Prescribes the ATS units at which the channel shall be made available
- ATS.OR.450 Communications for the control of vehicles other than aircraft on manoeuvring areas at controlled aerodromes
 - Mandatory two way radio communication, or visual signal systems
 - Automatic recording of communications
 - GM1 ATS.TR.450(a): vehicles provided with adequate communication capabilities



ATS.OR – Section 4 ‘Communications’

- ATS.OR.455 Automatic recording of surveillance data
 - Mandatory recording of ATS surveillance data (primary and secondary) for the purposes of occurrence investigation, SAR, system evaluation and training
- ATS.OR.460 Retention of recorded information and data
 - Mandatory retention of ATS-related recorded communications, data and logs: minimum period 30 days
- ATS.OR.465 Background communication and aural environment recording
 - Annex 11 Recommended Practice resulting from mid-air collision investigation report
 - Lack of implementation guidance from ICAO
 - Evidence of non-uniform implementation across EU MS
 - **NPA 2016-09 includes questions to stakeholders on the need, the objectives and the extent of applicability**



ATS.OR – Section 5 ‘Information’

- Consistent with PART-MET requirements in Annex V
- ATS.OR.500 Meteorological information — General
 - ATS units to be provided with up-to-date existing and forecast MET information
 - Emphasis on MET phenomena in the vicinity of aerodrome, climb-out and approach areas
- ATS.OR.505 Meteorological information for FIC and ACC
 - Aligned with MET.OR.245(f) and (g)
- ATS.OR.510 Meteorological information for units providing APP service
 - Aligned with MET.OR.242(b)
 - Specific requirements concerning surface wind displays, RVR displays, height of cloud base, wind shear



ATS.OR – Section 5 ‘Information’

- ATS.OR.515 Meteorological information for aerodrome control towers and AFIS units
 - Aligned with MET.OR.242(b)
 - Mandatory for TWR – For AFIS flexibility provided, at CA discretion
 - Specific requirements concerning surface wind displays, RVR displays, height of cloud base, wind shear
- ATS.OR.520 Information on aerodrome conditions and the operational status of associated facilities
 - Mirrors the elements of information on the operationally significant conditions of movement area and operational status of associated aerodrome facilities established in ADR.OPS.010 & 015 in Reg.139/2014
 - Concerns APP, TWR, AFIS
- ATS.OR.525 Information on the operational status of navigation services
 - Includes information on the operational status of radio navigation and visual aids, for departure, arrivals and surface movement



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Fabio GRASSO
EASA ATM/ANS Regulations Officer
NPA 2016-09 Consultation Workshop
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Amendments to ATS.TR

- Amendments concern ATS Technical Requirements in Annex IV Subpart B
 - Section 1 – General
 - Section 2 – ATC service
 - Section 3 – FIS
 - Section 4 – Alerting Service
- Replaces references to SERA, Annex 10 Volume II and Annex 11 in ATS.TR.100(a) with a detailed set of requirements
- Extensive associated AMC/GM are provided
- Former ATS.TR.100(b) addressing ATS provision for flight testing maintained – renumbered as ATS.TR.165



ATS.TR – Section 1 ‘General’

- ATS.TR.100 Objectives of the ATS
- ATS.TR.105 Divisions of the ATS
 - Defines services in the ATS scope and links them with ATS objectives
 - Associates the air traffic advisory service to FIS
 - ✓ AMC1 ATS.TR.105(b) air traffic advisory service only on a temporary basis, to IFR flights underspecified circumstances and within class F airspace, when ATC service is not deemed suitable
 - ✓ AMC2 ATS.TR.105(b): for traffic coordination, ATC procedures apply
 - GM2 ATS.TR.105(b) clarifies that FIS may be provided en-route and at an aerodrome and its vicinity
- ATS.TR.110 Establishment of the units providing ATS
 - Includes explicit reference to AFIS Unit, to provide FIS at aerodromes
 - Includes ARO – Functions of ARO in GM1 ATS.TR.110(b), derived from EANPG #57
 - ARO not necessarily a physical office - Functions-oriented



ATS.TR – Section 1 ‘General’

- ATS.TR.115 Identification of ATS units and airspaces
 - Naming ATS units is a responsibility of the CA
 - Includes AFIS unit and proposes criteria for naming it as ‘AFIS’

- ATS.TR.120 Coordination between military authorities and ATS
 - Addresses the availability to Military units of flight plan data, communications and position reporting of aircraft for identification purposes

- ATS.TR.125 Language for communication between ATS units
 - To be effected in English or in a mutually agreed language between ATS providers
 - Scope extended to FIS/AFIS, not only to ATC



ATS.TR – Section 1 ‘General’

- ATS.TR.130 Expression of vertical position of aircraft
 - Duplicated from SERA.8015(eb) without amendments
 - Vertical aircraft position based on flight levels, altitudes or specific heights
- ATS.TR.135 Determination of the transition level
 - Transition level to be established by ATS unit in association with transition altitude, not only in the vicinity of aerodrome concerned and, when relevant, TMA concerned (as instead in PANS ATM)
 - Location of transition level at least 300m (1000ft) above the transition altitude
 - RMG.0464 proposal to add ‘a nominal’ to the value, to save a FL under specified conditions
 - **The NPA includes a question to stakeholders on this proposal**
- ATS.TR.140 Minimum cruising level for IFR flights
 - Not to be assigned below minimum flight altitudes, unless specifically allowed by CA
 - To be determined by ATC unit



ATS.TR – Section 1 ‘General’

- ATS.TR.145 Provision of altimeter setting information
 - Largely duplicated from SERA.8015
- ATS.TR.150 Suspension of visual flight rules operations on and in the vicinity of an aerodrome
 - Responsibilities for suspension of all/part of VFR operations: CA, ACC, APP, TWR
 - Traffic management and coordination procedures in case of suspension
 - GM1 ATS.TR.150 better specifies the responsibilities of the aerodrome control tower
- ATS.TR.155 Aeronautical ground lights
 - ATS provider (including AFIS!) to establish procedures for the operation of aeronautical ground lights
 - AMC1 ATS.TR.155 provides details of such procedures
 - GM1 to AMC1 describes aeronautical ground lights



ATS.TR – Section 1 ‘General’

➤ ATS.TR.160 ATS surveillance services

- Establishes general requirements and criteria for the use of ATS surveillance systems in ATS provision
- AMC1 ATS.TR.160(a) describes in details the functions in ATC and FIS provision
- Identification requirements
- ATS provider to establish procedures for:
 - ✓ establishing identification of aircraft
 - ✓ providing position information to aircraft
 - ✓ vectoring aircraft - point (d) of AMC1 ATS.TR.160(d)(3) addresses EASA SIB 2014-07R1
 - ✓ providing navigation assistance to aircraft
 - ✓ providing information regarding adverse weather, if applicable
 - ✓ transferring of control of aircraft
 - ✓ failure of ATS surveillance system(s)
 - ✓ SSR transponder failure, i.a.w. Section 13 of SERA
 - ✓ ATS surveillance-based safety-related alerts and warnings, when implemented

➤ Extensive AMC and GM mainly derived from PANS-ATM Chapter 8



ATS.TR – Section 2 ‘ATC service’

➤ ATS.TR.200 Application

- Defines to which flights and in which airspaces/aerodromes ATC is to be provided

➤ ATS.TR.205 Provision of ATC service

- Sub-divides ATC in AREA, APPROACH and AERODROME control services
- Associates the ATC units with the relevant sub-ATC service based upon airspace/location (Area, Approach, Aerodrome)
- AMC1 ATS.TR.205 determination of operational set up of ATC units (sectors, working positions, duties)
- AMC1 ATS.TR.205(c): functions or TWR
 - ✓ Emphasis on continuous watch of aircraft, vehicles and persons by direct visual observation
 - ✓ Augmented by ATS surveillance systems, as necessary
 - ✓ Coordination with RMT.0624 Remote Tower Operations



ATS.TR – Section 2 ‘ATC service’

➤ ATS.TR.210 Operation of ATC service

- Establishes the tasks and prerogatives of ATC units - use of information, determination of aircraft position, issuance of clearances, instructions (addition), information, coordination of clearances (Point (a))
- Addresses the application of ATC clearances for separation purposes to IFR/VFR flights in various circumstances (Point (b))
- Prescribes horizontal and vertical separation principles and minima (vertical) (Point (c) and (d))
 - Reduction of separation minimum for parallel or near-parallel runway operations
 - Forbids the use of geometric height information generated by GPS or radio altimeters for separation purposes
- Extensively supported by AMC and GM derived from PANS-ATM
- **Question on the minimum delay to issue an EAT (Ref. AMC6 ATS.TR.210(a)(3))**
- **Question on the applicability in the EU context of longitudinal separation methods based on Mach number (AMC5 and AMC6 ATS.TR.210(c)(2)(1))**



ATS.TR – Section 2 ‘ATC service’

➤ ATS.TR.210 Operation of ATC service

- AMC/GM Point (a)(3) address various aspects
 - ✓ Horizontal and vertical speed control instructions
 - ✓ Clearances and instructions for holding aircraft
 - ✓ Establishing approach sequence and priority flights – EAT
 - ✓ Visual approach and visual departure
 - ✓ Missed approach procedures i.a.w. published procedures (SR FRAN-2013-045)
 - ✓ Information to arriving (approach and traffic circuit) and departing aircraft
 - ✓ Information, instructions and clearances for taxiing aircraft
 - ✓ ATC actions in case of effective or potential runway incursion
 - ✓ Conditions for issuance of take-off clearance
- AMC/GM Point(b)
 - ✓ Procedure for controlled flights operating in Class D or E in VMC and daylight to fly maintaining own separation



ATS.TR – Section 2 ‘ATC service’

➤ ATS.TR.210 Operation of ATC service

- AMC/GM Point (c) addressing separation minima
 - ✓ Application of emergency vertical separation (1/2 of prescribed minima)
 - ✓ Vertical separation criteria and minima for aircraft in holding (also from en-route traffic)
 - ✓ Horizontal separation minima based on ATS surveillance systems
 - ✓ En-route procedural longitudinal separation minima, and their reduction
 - ✓ En-route procedural lateral separation minima
 - ✓ Procedural longitudinal separation criteria and minima between arriving/departing aircraft using the same runway and when in flight
 - ✓ Procedural lateral separation criteria and minima



ATS.TR – Section 2 ‘ATC service’

- ATS.TR.215 Selection and notification of separation minima
 - ATS provider responsibility – CA approval
 - Coordination with neighbouring ATS providers as necessary
 - Notification to ATS, pilots and aircraft operators concerned required
- ATS.TR.220 Application of wake turbulence separation
 - Prescribes application of wake turbulence separation to departing/arriving aircraft under specified circumstances
 - Duplicates and changes SERA.8012 by excluding the application of wake turbulence separation to VFR and successive IFR flights performing visual approaches, under specified conditions
 - Aircraft categorisation in AMC - Introduction of ‘SUPER’ category, for coherence with SERA, based on ICAO letter dated 2008
 - Time-based and distance-based separation criteria and minima in AMC, to leave flexibility for more sophisticated schemes (e.g. EU RECAT)



ATS.TR – Section 2 ‘ATC service’

- ATS.TR.225 Responsibility for control
 - A controlled flight under a single ATC unit responsibility at any given time
 - Control of all aircraft in a given airspace block by a single ATC unit
 - Delegation possible following coordination
- ATS.TR.230 Transfer of responsibility for control
 - Place and time for transfer of controlled flights
 - ✓ Between ATC units
 - ✓ Novelty: explicit APP-APP transfer requirements
 - Coordination of transfer of controlled flights
 - Supporting AMC and GM addressing coordination between ATC units derived from PANS-ATM Chapter 10
 - AMC1 ATS.TR.230(b)(7) addressing phraseology for coordination between ATS Units/sectors derived from PANS-ATM chapter 12.3.5



ATS.TR – Section 2 ‘ATC service’

➤ ATS.TR.235 ATC clearances

- Duplicates and changes SERA.8015
- Addresses the content and the utilisation of ATC clearances
- Read-back requirements
- Clearance coordination between ATC units
- Extensively supported by AMC and GM on:
 - Clearances/standard clearances for departing and arriving aircraft
 - Specification of clearance limit
 - Instructions in clearances relating to levels

➤ ATS.TR.240 Control of persons and vehicles at controlled aerodromes

- Principles for control of persons and vehicles in low visibility procedures
- Priorities for vehicles operating on the manoeuvring area
- AMC1 ATS.TR.240(a) provides more details, in particular as regards the access to manoeuvring area and particularly the runway



ATS.TR – Section 2 ‘ATC service’

- ATS.TR.245 Use of surface movement surveillance equipment at aerodromes
 - To ensure complete and adequate visual observation of the manoeuvring area
 - Preferably A-SMGCS, in accordance with:
 - ✓ ADR.OPS.B.030 and associated AMC/GM
 - ✓ Section 6.5.6 Doc. 7030 EUR
- ATS.TR.250 Essential traffic information
 - Essential traffic
 - Essential local traffic
- ATS.TR.255 Operations on parallel or near-parallel runways
 - AMC/GM from PANS ATM Chapter 6.7 concerning:
 - ✓ Independent parallel approaches and departures
 - ✓ Dependent parallel approaches
 - ✓ Segregated parallel operations



ATS.TR – Section 2 ‘ATC service’

- ATS.TR.260 Selection of the runway in use
 - Criteria for the selection of the runway in use at controlled aerodromes
- ATS.TR.265 Control of aerodrome surface traffic in conditions of low visibility
 - When no visual separation applicable by the TWR
 - Separation criteria between aircraft and vehicles
 - Procedures for the initiation and continuation of low visibility operations and longitudinal separation on taxiways to be established by ATS provider, approved by CA
 - EASA RMT.0389 All Weather Operations coordination
- ATS.TR.270 Authorisation of special VFR
 - Traffic authorised to operate within control zone, subject to ATC clearance
 - Conditions and meteorological minima are provided
 - Replicates SERA.5010, with the addition of the requirement for TWR to handle requests for special VFR individually



ATS.TR – Section 2 ‘ATC service’

- ATS.TR.275 Pressure-altitude-derived level information
 - To be applied when ATS surveillance service is provided
 - Verification at least once for each controlled flight, upon specified conditions
 - With the objective to verify the vertical position of aircraft with respect to flight levels (maintain, vacate, pass through, reach)



ATS.TR – Section 3 ‘FIS’

➤ ATS.TR.300 Application

- Defines flights to which service is to be provided
- Addresses priority between ATC and FIS
- Requires recording and transmission of information on the progress of flights
- Addresses the need to determine coordination and transfer of responsibilities in FIS provision

➤ ATS.TR.305 Scope of flight information service

- Largely duplicated from SERA.9005 – Amendment introduced (point (a)(7))
- Stipulates the scope of information to be provided to aircraft
- Point (c) explicitly addresses additional responsibilities for AFIS units
 - ✓ Derived from ICAO Circular 211
 - ✓ Information on collision hazards on the manoeuvring area
 - ✓ The runway in use – **WORKSHOP IS ADVISED TO EXPRESS VIEWS IN CRT**
 - ✓ Messages, including clearances, received from other ATS units
- Extensive AMC and GM provided



ATS.TR – Section 3 ‘FIS’

- ATS.TR.310 – ATS.TR.325 address ATIS and VOLMET requirements derived from Annex 11
- **Question to stakeholders on the applicability of OFIS (Operational Flight Information Service) in the EU context – ICAO Annex 11 provisions in Chapter 4.3 not transposed in NPA 2016-09**



ATS.TR – Section 4 ‘Alerting Service’

- Mainly derived from Annex 11 Chapter 5
- Explicit recognition of AFIS units responsibilities
- ATS.TR.400 Application
 - Flights to which Alerting Service is to be provided
 - General principles
- ATS.TR.405 Notification to rescue coordination centres
- ATS.TR.410 Use of communication facilities
- ATS.TR.415 Plotting aircraft in a state of emergency
 - Use of any possible means to monitor aircraft position, not just charts
 - AMC1 supports the use of ATS surveillance systems for this purpose
- ATS.TR.420 Information to the operator
- ATS.TR.425 Information to aircraft operating in the vicinity of an aircraft in a state of emergency



EASA
European Aviation Safety Agency

RMT.0464 ATS Requirements Focus on AFIS requirements

Fabio GRASSO
EASA ATM/ANS Regulations Officer
NPA 2016-09 Consultation Workshop
30.11.2016

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TE.GEN.00409-001



AFIS in the ICAO context

- AFIS not established as a 'standalone' service
- No explicit provision (SARPs, PANS, Docs) are provided
- Non binding guidance on AFIS available:
 - ICAO Circular 211-AN/128 (1988)
 - EUROCONTROL AFIS Manual (2010)
- Annex 11 and PANS-ATM provisions for FIS apply, but....
- ...they are not specific to the aerodrome context, nor recognise the existence of an ATS unit providing such service
- In the given situation, States have developed diverse AFIS models, with sometimes significant differences



AFIS in the EU legislation

- ATS technical requirements, including FIS, are stipulated in Reg.1035/2011
- Reference to working methods and operating procedures as in SERA, Annex 10 Volume II, Annex 11
- In absence of explicit AFIS requirements, FIS principles in Annex 11 should apply
- Incomplete and not specific to the aerodrome context
- Reg. 2016/1377: unchanged regulatory reference, awaiting for the full implementation of Essential Requirements in EASA BR Annex Vb 2.(c)



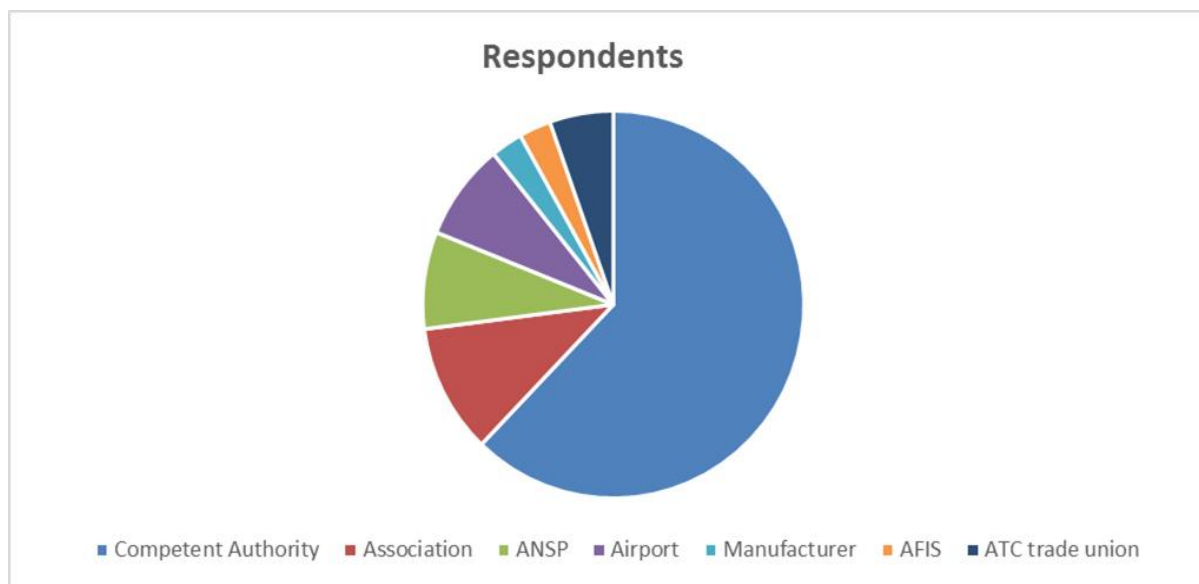
FIS/AFIS certification in the EU law

- **CERTIFICATION** of ATS providers is mandatory i.a.w.:
 - Article 8.1 of Reg. 550/2004 and
 - Article 4 of Reg. 1035/2011
- Reg. 1035/2011 Article 5.4: AFIS providers regularly operating not more than one working position may be certified with **DEROGATIONS** (a reduced certification scope under specified conditions) only on the following:
 - safety management responsibility & external services and supplies
 - safety surveys
 - safety requirements for risk assessment and mitigation with regard to changes
- EASA BR and Reg. 2016/1377: **DECLARATION** of FIS allowed
- For AFIS the possibility for derogations (limited certificate) remains (see ATM/ANS.OR.A.010(b)(2))



The EASA AFIS Survey

- Issued from Aug. to Oct. 2015
- 37 Responses from 27 States (22 EU, 3 other EASA, 2 ECAC)



- Questions based on controversial issues and feedback from EASA standardisation activities
- Results supported the decision making on regulatory proposals



The need to regulate AFIS

- Feedback from EASA survey: wide but diverse implementation across EU States, often based on national regulation
- Feedback from EASA standardisation inspections: problems with certification/designation of AFIS providers
- EASA Safety assessment: evidence (in RIA, 2 examples of Occurrence Reports, including related recommendations) that diverse 'AFIS models' represent a safety issue due to lack of harmonised procedures
- Lack of explicit AFIS provisions = **a gap to be filled within the EU ATS regulatory framework**
- **RMT.0464 ToRs includes mandate to make proposals to close this gap**



Regulatory proposal on AFIS

- Explicit recognition within ATS = amended definition of AFIS
- To establish general requirements on fundamental aspects of AFIS provision = legal basis for certification, oversight, service provision
- Mainly Organisation Requirements derived from Annex 11 Standards extended to AFIS, where deemed appropriate
- Additional technical requirements (mostly AMC and GM) derived from ICAO Circular and EUROCONTROL AFIS Manual, validated by the EASA survey
- Not addressed in the NPA:
 - AFIS Phraseologies – under the scope of SERA
 - FISO/AFISO qualification and training



UNICOM stations

- To ensure proportionality and avoid negative impact on local aerodrome activities, the 'UNICOM concept' is proposed in GM
 - UNICOM = Aeronautical stations facilitating local aviation activities
 - Not within the EU ATS scope
 - To be regulated at national level
 - To be notified via AIS publications
- No 'thresholds' are established for the selection of either aerodrome ATS or facilitation to local activities
- Decision making on type and level of service is a responsibility of Member States



➤ Options analysed – PREFERRED OPTION 1

<i>Option No</i>	<i>Short title</i>	<i>Description</i>
0	No policy change	Baseline scenario (no change in EU rules; risks remain as outlined in the issue analysis).
1	Essential and flexible AFIS rules	Definition of AFIS and its essential requirements consistent with existing ICAO ATS principles and EU legislation and practices, while ensuring certain flexibility
2	Comprehensive and prescriptive AFIS rules	Definition of AFIS and its complete mandatory requirements consistent with existing ICAO ATS principles and EU legislation

➤ Questions to stakeholders to:

- **verify the viability of the proposal**
- **gather more detailed qualitative and quantitative information on the impact on the actual AFIS provision**



ICAO AFIS initiative

- ATMOPS panel agreed on establishing an AFIS Subgroup
- Job card should be formally assigned in December
- Objective: to develop ICAO AFIS Manual replacing Circular 211
- Basis: EUROCONTROL AFIS Manual (2010)
- Planned delivery of the proposal to ATMOPS panel: 2017
- EASA to coordinate with European ATMOPS members to ensure representation of the EU legislative initiative and alignment



EASA

European Aviation Safety Agency

Thank you very much for your attention!

Questions?

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