



EUROPEAN AVIATION SAFETY AGENCY
AGENCE EUROPÉENNE DE LA SÉCURITÉ AÉRIENNE
EUROPÄISCHE AGENTUR FÜR FLUGSICHERHEIT

Overview – PBN related AIR OPS rules

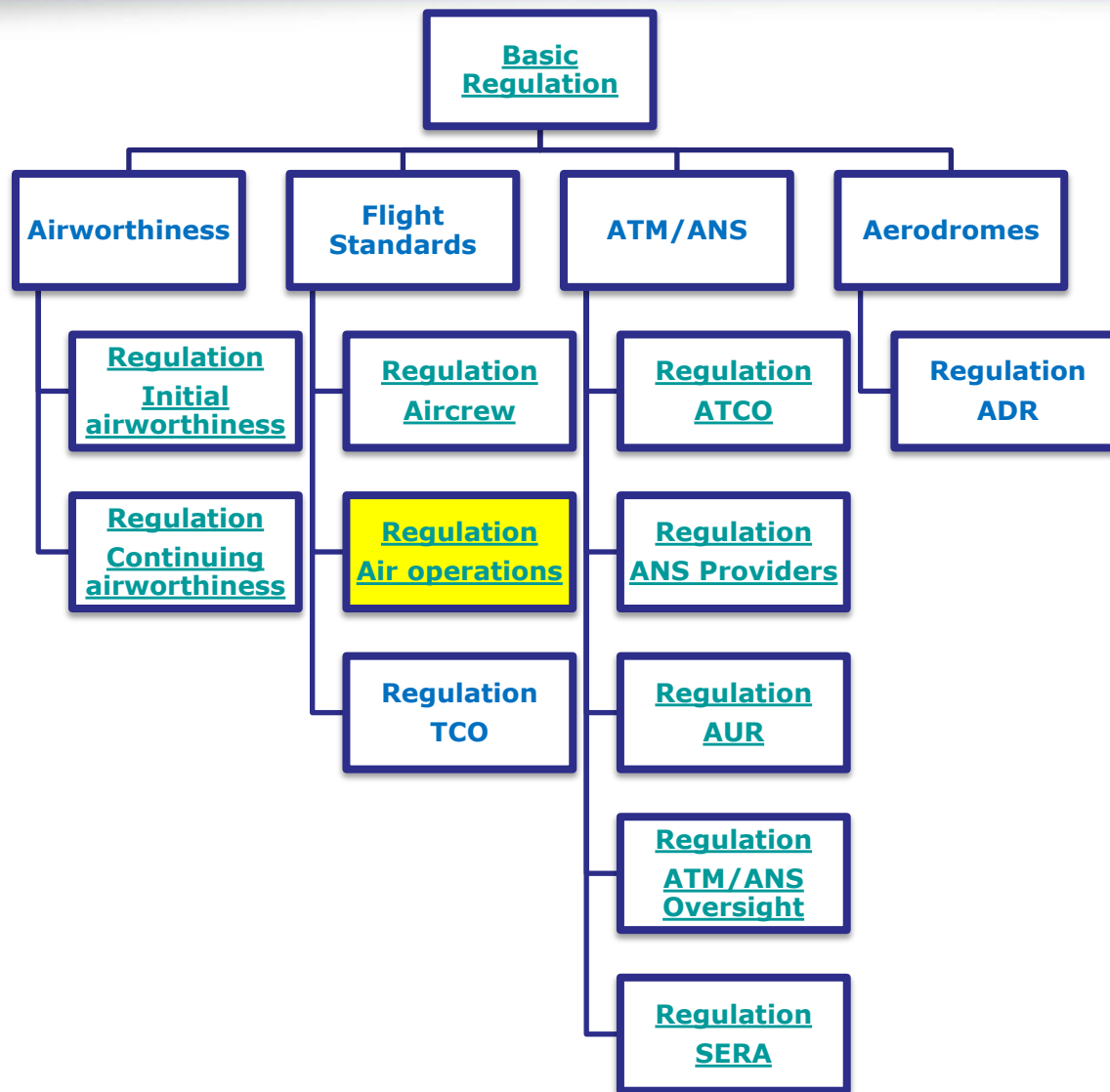
Willy Sigl
EASA

EASA Workshop – PBN
Operations
15 January 2014

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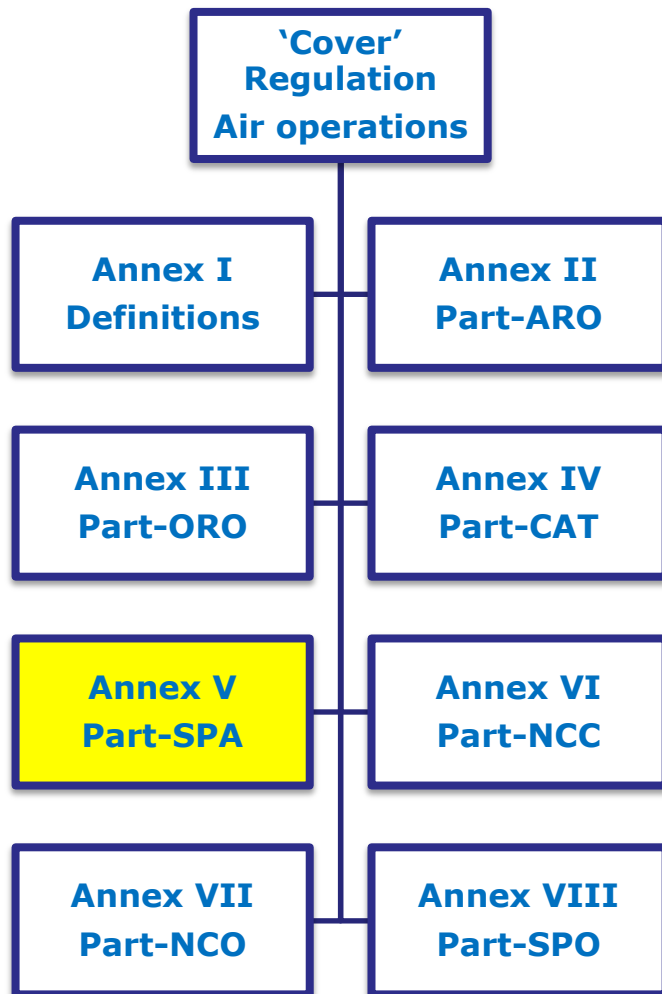
European Aviation Regulations



- **ATM/ANS:** air traffic management, air navigation services
- **TCO:** third country operators
- **ATCO:** air traffic controllers
- **AUR:** airspace usage requirements
- **SERA:** single European rules of the air
- **ADR:** aerodromes



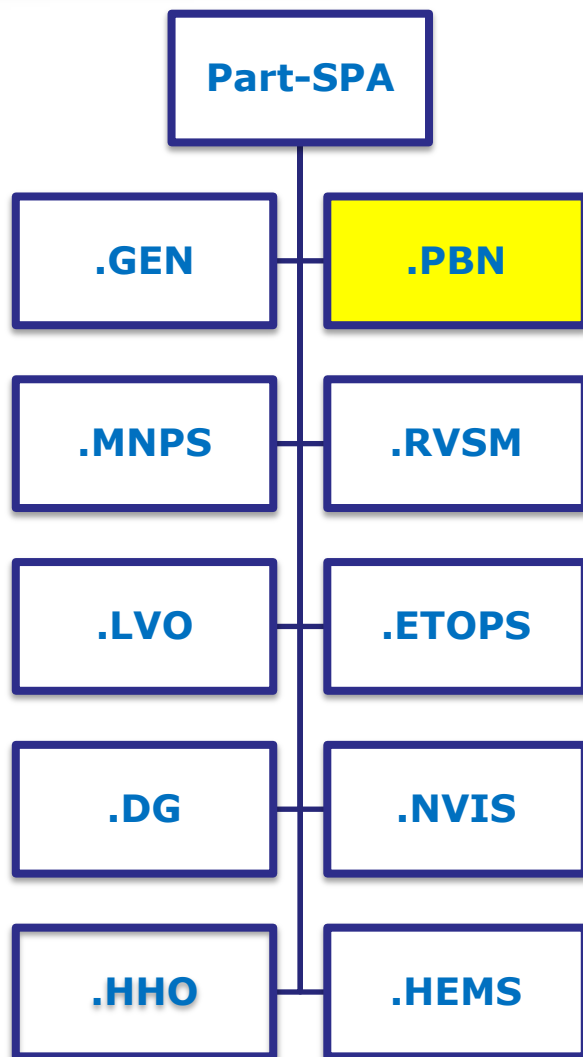
Regulation air operations - rule structure



- **Part-ARO:** Authority requirements - OPS
- **Part-ORO:** Organisation requirements - OPS
- **Part-CAT:** Commercial air transport operations
- **Part-SPA:** Operations requiring specific approvals
- **Part-NCC:** non-commercial operations with complex motor-powered aircraft (CMPA)
- **Part-NCO:** non-commercial operations with other-than-CMPA
- **Part-SPO:** specialised operations, e.g. aerial work



Annex V: Part-SPA



- › **.GEN** – general requirements
- › **.PBN** – performance based navigation
- › **.MNPS** – minimum navigation performance specifications
- › **.RVSM** – reduced vertical separation minima
- › **.LVO** – low visibility operations
- › **.ETOPS** – extended range operations with two-engined aeroplanes
- › **.DG** – dangerous goods
- › **.NVIS** – night vision imaging systems
- › **.HHO** – helicopter hoist operations
- › **.HEMS** – helicopter emergency medical services

➤ **Applicability**

- SPA.PBN is applicable to all European air operators:
 - commercial operators; and
 - non-commercial operators

➤ **SPA.PBN.100 PBN operations**

- an operational approval is required for all PBN operations except for RNAV-5
- the operational approval is granted by the competent national aviation authority
- PBN specific operational approvals are documented in the OPSPECS

➤ **SPA.PBN.105 PBN operational approval**

- providing general criteria for obtaining an operational approval
 - the relevant airworthiness approval of the RNAV system has been obtained
 - a training programme for the flight crew members involved in these operations has been established
 - operating procedures have been established specifying:
 - the equipment to be carried, including its operating limitations and appropriate entries in the minimum equipment list (MEL)
 - flight crew composition and experience requirements
 - ...

➤ **SPA.PBN.105 PBN operational approval**

- operating procedures have been established specifying:
 - ...
 - normal procedures
 - contingency procedures
 - monitoring and incident reporting
 - electronic navigation data management

- **AMCs to SPA.PBN**

- Currently not defined

- **GM SPA.PBN.100**

- Contains a description of different PBN operations
 - Contains a table with references to relevant AMC 20 material, ICAO documents, FAA documents

➤ Overview of AMC 20 documents for SPA.PBN

Navigation Specification	EASA rules
RNAV 10	AMC 20-12
RNAV 5	AMC 20-4
RNAV 2	
RNAV 1	
RNP 4	
RNP 2	
RNP 1	
RNP APCH (LNAV)	AMC 20-27
RNP APCH (LNAV/VNAV)	AMC 20-27
RNP APCH (LP)	AMC 20-28
RNP APCH (LPV)	AMC 20-28
RNP AR APCH	AMC 20-26
RNP 0.3	

➤ **Shortcomings of the current rules**

- Although PBN is becoming the normal method of navigation, the technical AIR OPS rules as well initial pilot training requirements do not yet fully integrate PBN into the regulatory system
- A number of PBN specifications are not addressed at all and there is a legal uncertainty for granting operational approvals for such specifications
- The regulatory instrument of an operational approval does not seem to be appropriate for most PBN operations; there are safer and more efficient alternatives available
- These shortcomings are addressed in NPA 2013/25 (to be presented in the afternoon session)



- **Implementing Rules for AIR OPS including Part-SPA**
 - <http://easa.europa.eu/regulations/flight-standards-implementing-rules.php#Air-Operations>
 - Regulation 965/2012 – initial version
 - Regulation 800/2013 – amendment 1
- **AMC and GM to Part-SPA**
 - <http://easa.europa.eu/agency-measures/agency-decisions.php#Rulemaking-2012>
 - 2012/019/R - initial version
 - 2013/020/R - amendment 1
- **NPA 2013/25**
 - <http://easa.europa.eu/rulemaking/docs/npa/2013/NPA%202013-25.pdf>



References

- **Rulemaking programme 2014-2017**

- <http://easa.europa.eu/rulemaking/annual-programme-and-planning.php>

- **Flight Standards mini-website**

- <http://easa.europa.eu/flightstandards/>

- **Interpretation questions should be directed to**

- Air_OPS@easa.europa.eu



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Flight Standards Department
Any Questions?
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