



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

# Overview – PBN related AIR OPS rules

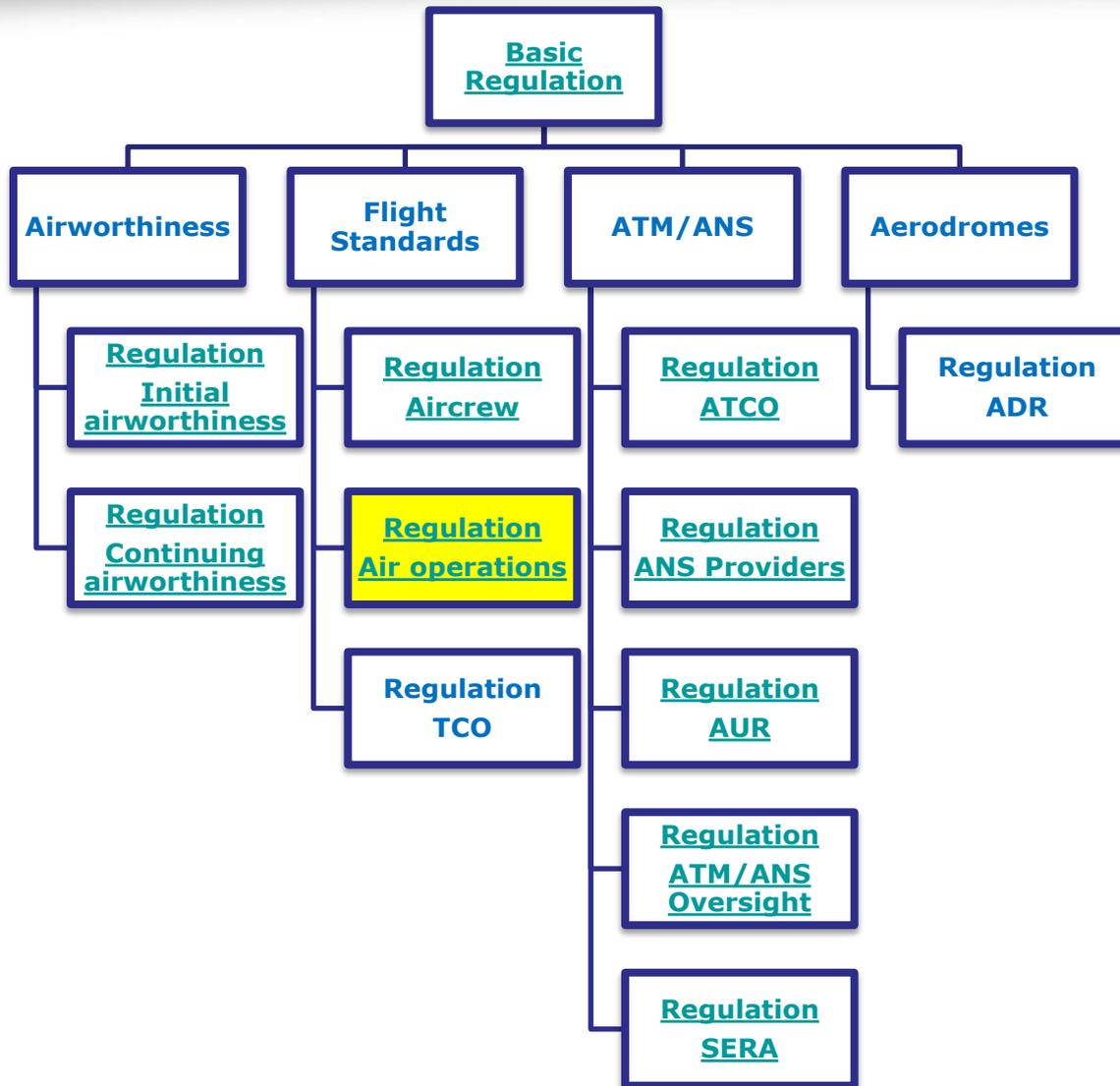
**Willy Sigl**  
**EASA**

EASA Workshop – PBN  
Operations  
15 January 2014

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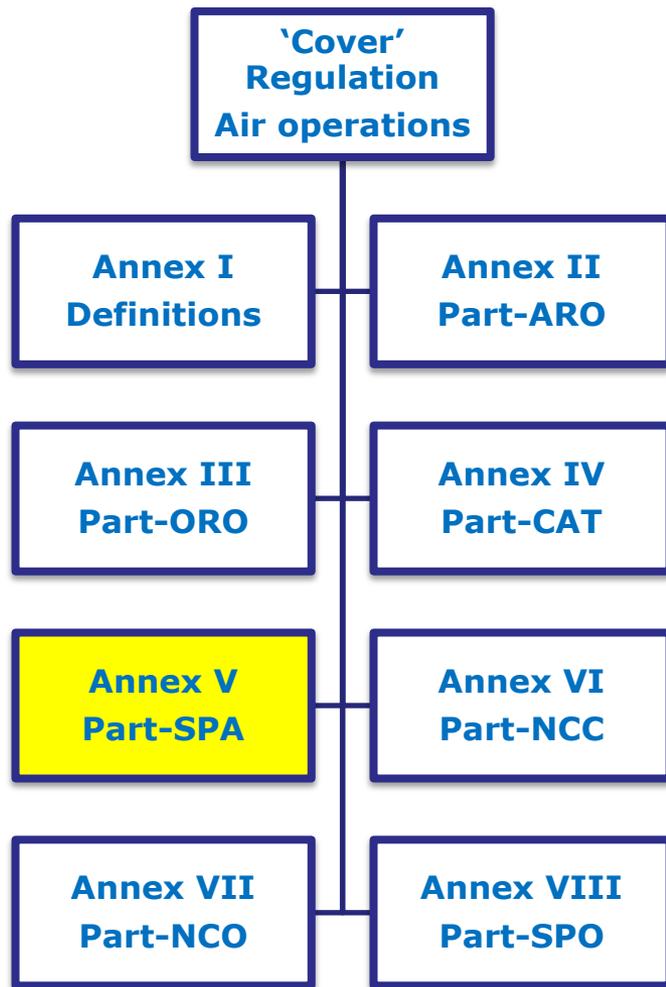
# European Aviation Regulations



- **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



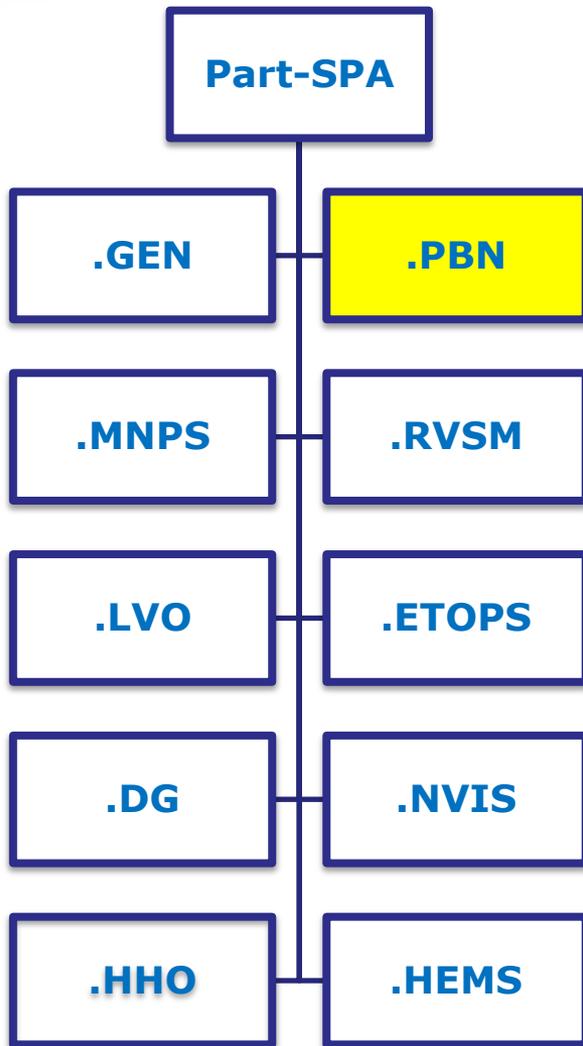
# Regulation air operations - rule structure



- **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**

<b>Navigation Specification</b>	<b>EASA rules</b>
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>



- **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](mailto:Air OPS@easa.europa.eu)



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**Flight Standards Department**  
**Any Questions?**  
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