Introduction to ATM – ANS Annexes

Sofema Aviation Services (SAS) – www.sassofia.com reviews ATM-ANS Annexes and considers the high-level role of each.

ANNEX I — DEFINITIONS

ANNEX II — PART-ATM/ANS.AR

REQUIREMENTS FOR COMPETENT AUTHORITIES — OVERSIGHT OF SERVICES AND OTHER ATM NETWORK FUNCTIONS

Part-ATM/ANS.AR is a crucial component of the regulatory framework governing Air Traffic Management and Air Navigation Services within the European Union, focusing on the roles and responsibilities of competent authorities in ensuring compliance with safety standards and other requirements set forth by the EU regulations

- SUBPART A — GENERAL REQUIREMENTS ATM/ANS.AR.A.001 Scope Regulation (EU) 2017/373
- This Annex establishes the requirements for the administration and management systems of the competent authorities responsible for certification, oversight and enforcement in respect of the application of the requirements set out in Annexes III to XIII by the service providers in accordance with Article 6.

Note - Regulation (EU) 2017/373 is a key regulation that lays down the common requirements for providers of air traffic management and air navigation services. It provides a framework for the harmonization of aviation safety standards within the European Union.

ANNEX III — PART-ATM/ANS.OR

Annex III, Part-ATM/ANS.OR, pertains to Air Traffic Management/Air Navigation Services Organizations and outlines the common requirements for service providers in this domain.

- ANNEX III COMMON REQUIREMENTS FOR SERVICE PROVIDERS (PART-ATM/ANS.OR)
- SUBPART A — GENERAL REQUIREMENTS (ATM/ANS.OR.A) ATM/ANS.OR.A.001 Scope Regulation (EU) 2017/373
- In accordance with Article 6, this Annex establishes the requirements to be met by the service providers.

Service providers should familiarize themselves with the specific requirements of Annex III, Part-ATM/ANS.OR, and ensure that their operational policies, procedures, and practices are in alignment with these requirements.

- Regular audits and assessments should be conducted to verify compliance and to identify areas for improvement. Any non-compliance or deviation from the established requirements should be promptly addressed and rectified.

ANNEX IV — PART-ATS

- SPECIFIC REQUIREMENTS FOR PROVIDERS OF AIR TRAFFIC SERVICES
- SUBPART A — ADDITIONAL ORGANISATION REQUIREMENTS FOR PROVIDERS OF AIR TRAFFIC SERVICES (ATS.OR)

Subpart A - Additional Organization Requirements are aimed at ensuring that ATS providers have the necessary organizational structures, resources, and procedures in place to deliver safe and efficient services.

- ATS providers must have a clear and effective organizational structure, with defined roles and responsibilities.
- Adequate resources, including personnel, must be available to ensure the safe provision of services.
- Providers must develop, maintain, and adhere to operational procedures that ensure the safety and efficiency of air traffic services.
- ATS providers are required to implement a safety management system (SMS) to identify and manage safety risks.
  - The SMS should include processes for risk assessment, mitigation, and continuous monitoring and improvement of safety performance.
- A quality assurance program must be in place to monitor compliance with regulations and internal procedures and to identify areas for improvement.
  - Regular audits and inspections should be conducted to ensure ongoing compliance and effectiveness of the quality assurance program.
- Personnel must be adequately trained and competent to perform their roles.

ANNEX V — PART-MET

- SPECIFIC REQUIREMENTS FOR PROVIDERS OF METEOROLOGICAL SERVICES
- SUBPART A — ADDITIONAL ORGANISATION REQUIREMENTS FOR PROVIDERS OF METEOROLOGICAL SERVICES (MET.OR)

Annex V - Part-MET outlines the specific requirements that providers of meteorological services must adhere to. Meteorological services play a crucial role in aviation safety by providing accurate and timely weather information to support the decision-making processes of air traffic management, pilots, and other aviation stakeholders.

The provisions within these regulations are aimed at ensuring that meteorological information provided to the aviation industry is reliable, accurate, and of high quality.

ANNEX VI — PART-AIS

- SPECIFIC REQUIREMENTS FOR THE PROVIDERS OF AERONAUTICAL INFORMATION SERVICES
- SUBPART A – ADDITIONAL ORGANISATION REQUIREMENTS FOR PROVIDERS OF AERONAUTICAL INFORMATION SERVICES (AIS.OR)

Part-AIS focuses on the additional organizational requirements for AIS providers. It outlines the necessary organizational structures, responsibilities, procedures, and resources that AIS providers must have in place to ensure the provision of accurate, reliable, and timely aeronautical information.

- Part-AIS ensures that AIS providers operate under a harmonized and standardized framework, focusing on organizational structure, quality and safety management, data management, documentation, and the competence of personnel, to deliver reliable and accurate aeronautical information to all relevant stakeholders.

ANNEX VII — PART-DAT

- SPECIFIC REQUIREMENTS FOR PROVIDERS OF DATA SERVICES
- SUBPART A — ADDITIONAL ORGANISATION REQUIREMENTS FOR PROVIDERS OF DATA SERVICES (DAT.OR)

Part-DAT pertains specifically to providers of data services, focusing on the organizational requirements and specific requirements that these providers must adhere to.

- Compliance is crucial for providers of data services in the aviation sector, focusing on organizational and specific requirements to ensure the safety, reliability, and integrity of data services.

ANNEX VIII — PART-CNS

- SPECIFIC REQUIREMENTS FOR PROVIDERS OF COMMUNICATION, NAVIGATION, OR SURVEILLANCE SERVICES
- SUBPART A — ADDITIONAL ORGANISATION REQUIREMENTS FOR PROVIDERS OF COMMUNICATION, NAVIGATION, OR SURVEILLANCE SERVICES (CNS.OR)

Part-CNS and its subparts provide a comprehensive framework for the provision of Communication, Navigation, and Surveillance services in the aviation sector. It ensures that providers of these services

operate to the highest standards of safety and reliability, with clear organizational structures, robust operational procedures, qualified personnel, and effective quality and safety management systems.

This annex outlines the requirements for providers of Communication, Navigation, or Surveillance services. By setting the standards for the organizational structure, management, and operational procedures of CNS service providers.

These services are crucial for the safe and efficient operation of air traffic and include things like radio communication, navigation aids, and radar services. The annex is designed to ensure that providers of these services meet the necessary safety and performance requirements.

ANNEX IX — PART-ATFM

- SPECIFIC REQUIREMENTS FOR PROVIDERS OF AIR TRAFFIC FLOW MANAGEMENT
- TECHNICAL REQUIREMENTS FOR PROVIDERS OF AIR TRAFFIC FLOW MANAGEMENT (ATFM.TR)

Part-ATFM provides a comprehensive framework for the provision of Air Traffic Flow Management services, detailing both the specific and technical requirements that service providers must meet.

The technical requirements focus on the technical aspects and systems that support the provision of ATFM services. These requirements ensure that the necessary technical infrastructure, systems, and equipment are in place to support ATFM operations.

- Technical systems should support the exchange of data with other ATFM units, airlines, and stakeholders.
- Systems should be interoperable with other ATFM systems to ensure seamless coordination and information exchange.
- Technical security measures should be in place to protect ATFM systems and data from unauthorized access, disclosure, alteration, or destruction.
- Regular security assessments and audits should be conducted to ensure the security of ATFM systems.
- Adequate technical support and maintenance should be provided to ensure the continuous availability and reliability of ATFM systems.
- Providers should have procedures in place for the timely resolution of technical issues and system failures.

ANNEX X — PART-ASM

- SPECIFIC REQUIREMENTS FOR PROVIDERS OF AIRSPACE MANAGEMENT
- TECHNICAL REQUIREMENTS FOR PROVIDERS OF AIRSPACE MANAGEMENT (ASM.TR)

Annex X — Part-ASM provides a comprehensive framework of specific and technical requirements that ASM providers must adhere to, ensuring the balanced and optimized utilization of airspace for all users.

Specific Requirements for Providers of Airspace Management outlines the particular obligations and standards that ASM providers must meet. It includes provisions related to the organizational structure, management systems, staffing, training, and other aspects necessary for the provision of ASM services.

Technical Requirements for Providers of Airspace Management (ASM.TR) encompasses the technical aspects of service provision, including equipment, systems, procedures, and operational methods, ensuring that ASM services are provided with the highest level of safety and efficiency.

ANNEX XI — PART-FPD

- SPECIFIC REQUIREMENTS FOR PROVIDERS OF FLIGHT PROCEDURE DESIGN SERVICES
- SUBPART A — ADDITIONAL ORGANISATION REQUIREMENTS FOR PROVIDERS OF FLIGHT PROCEDURE DESIGN SERVICES (FPD.OR)

Annex XI - Part-FPD is designed to establish standards and requirements for organizations providing flight procedure design services.

Flight procedure design is a critical aspect of aviation operations, involving the creation of routes and procedures that aircraft follow during different phases of flight, ensuring safe and efficient air traffic management.

- The regulations under this annex aim to ensure that providers of these services adhere to high-quality standards, maintain safety, and comply with applicable regulations and international standards.
- Specific Requirements for Providers of Flight Procedure Design Services outlines the specific requirements that organizations must meet to provide flight procedure design services.
  - o It includes criteria related to technical competence, quality assurance, safety management, and documentation, ensuring that the designed flight procedures are safe, efficient, and compliant with applicable standards.
- Subpart A - Additional Organisation Requirements for Providers of Flight Procedure Design Services (FPD.OR) focuses on the additional organizational requirements that flight procedure design service providers must fulfill.
  - o It emphasizes the establishment of robust organizational structures, processes, and systems to ensure the consistent delivery of high-quality flight procedure design services.
  - o This subpart typically covers areas such as personnel qualifications, resource management, and the implementation of quality and safety management systems.

ANNEX XII — PART-NM

- SPECIFIC REQUIREMENTS FOR THE NETWORK MANAGER
- TECHNICAL REQUIREMENTS FOR THE NETWORK MANAGER (NM.TR)

The Network Manager is responsible for managing the air traffic network across Europe, ensuring efficient and safe air traffic flow, and coordinating with various air navigation service providers.

- Specific Requirements for the Network Manager - specific operational, administrative, and safety requirements that the Network Manager must adhere to. Guidelines on managing air traffic flows, coordinating with other aviation entities, and ensuring compliance with relevant regulations and standards.
- Technical Requirements for the Network Manager (NM.TR) Technical standards and specifications that the Network Manager must meet.
  - Requirements related to technology systems, data exchange, interoperability, and other technical aspects crucial for managing the air traffic network effectively.

ANNEX XIII — PART-PERS

- REQUIREMENTS FOR SERVICE PROVIDERS CONCERNING PERSONNEL TRAINING AND COMPETENCE ASSESSMENT
- SUBPART A —AIR TRAFFIC SAFETY ELECTRONICS PERSONNEL

In essence, Annex XIII — Part-PERS of the EASA ANS regulations provides the requirements and standards for the training and competence assessment of personnel, with a special emphasis on Air Traffic Safety Electronics Personnel.

- By doing so, it aims to mitigate the risks associated with human error in the provision of air navigation services and to ensure the reliability and integrity of the electronic systems used in air traffic management.
- The Annex outlines the mandatory requirements that service providers must adhere to regarding the training and competence assessment of their personnel.
  - To ensure that the personnel involved in air navigation services are adequately trained, competent, and capable of performing their duties safely and efficiently.
  - Setting minimum standards for training programs, competence assessments, and continuous professional development to maintain and enhance the skills and knowledge of the personnel.
- Air Traffic Safety Electronics Personnel - Subpart A specifically focuses on the Air Traffic Safety Electronics Personnel (ATSEP), who are responsible for the technical and operational safety of air traffic management systems and equipment.

- It ensures that ATSEP personnel have the necessary skills, knowledge, and experience to install, maintain, and repair the electronic systems used for air traffic management safely and effectively.

Next Steps

Sofema Aviation Services (www.sassofia.comn) offers the following course – please see the following link https://sassofia.com/course/easa-quality-assurance-auditing-introduction-for-air-navigation-services-ans-3-days/ or email team@sassofia.com.