MINIMUM REPORTING AREAS IN ATM AND SAR
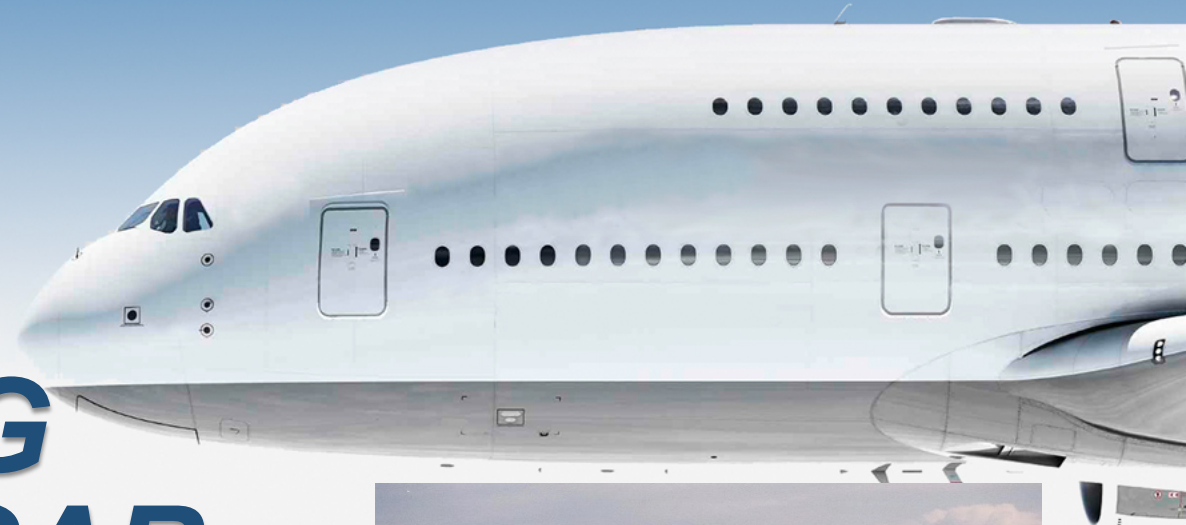
23-24 Nov 2021

ATM / SAR Minimum Reporting Areas

① *ATS GENERAL*

② *AIRSPACE MANAGEMENT (ASM)*

③ *ATS Requirements for Operational flight information and FIS*

④ *Communication requirements in ATM*

ATM / SAR Minimum Reporting Areas

⑤ *RVSM*

⑥ *Surveillance in ATM*

⑧ *ATM Oversight Function*

⑦ *PBN*

⑨ *Search and Rescue*

①Air Traffic Services (ATS) General

Deficiencies can be realized in the general Area of ATS as follows;

➢ *ATS structure and implementation*

– if there is lack of an effective organizational structure in place.

➢ *ATS personnel Competency*

– there is no mechanism or policy for continued Training of technical and operational staff.
- There is no mechanism for determining required staffing level and competency levels
*- There is no mechanism in place for ensuring required levels and maintenance of the English Language proficiency for ATC staff.*

➢ *Coordination procedures*

- *When there are no provisions or nil agreements between ATCUs and other ATS units including the MIL, AIS, CNS, MET, AOP to ensure safe operations*
- *The LOAs are inadequate or outdated resulting in unsafe provision of ATS*
- *Lack of uniformity in application of ICAO standards relating to interception of civil aircraft*
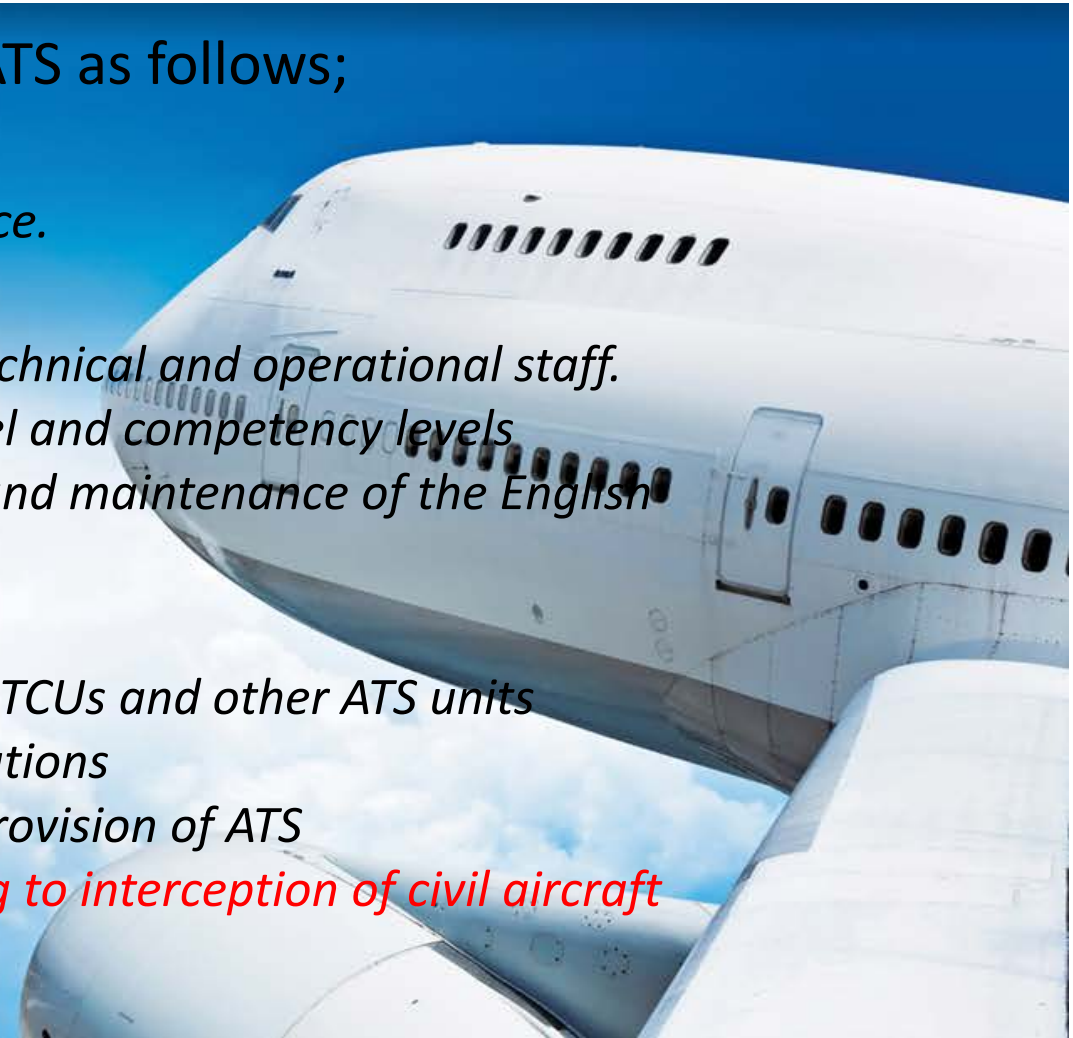
① Air Traffic Services (ATS) General cont….

➢ **ATC procedures** - *A deficiency will result when*
- *The implemented ATC procedures are outdated or inadequate*
- *There is no uniformity in the ATC procedures leading to Inconsistent and unsafe provision of ATS*

➢ **ATSUs setup**
- *Lack of implementation of area control unit where required.*
- *Non compliance with the requirements for establishment of ATCUs in accordance to PANS ATM Doc. 4444 and regional ANP*

➢ **Radio Telephony procedures**

– *non compliance with standard procedures to be used in radio communication*

①Air Traffic Services (ATS) General cont....

➢ *Provision of critical safety information*
– Lack of availability of essential safety information relating to MET, Aerodrome, and airspace for the safe provision of ATS

➢ *Application of Standard Separation minimum*

– non compliance with the standard separation minimum as per PANS ATM Doc 4444 and Regional ANP.

➢ *ATS Incident reporting and Investigation procedures*

– Lack of procedures for an effective reporting and investigative system

- Lack of implementation of a safety management system leading to non guarantee of acceptable level of safety in the provision of ATS
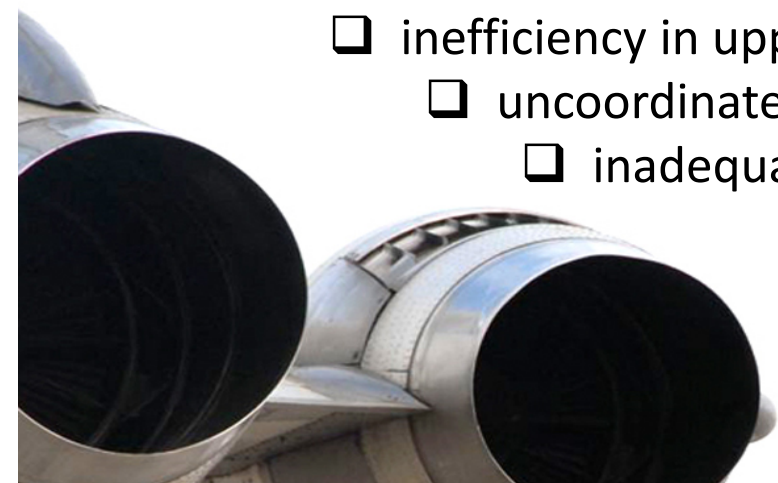
②Air Space Management (ASM)

❑ **Lack of provision of Area Control Service due to non compliance with standard Airspace classification**

❑ **Cooperative approach to airspace management:** Non implementation Of a system for cooperative provision of ATM service leading to -
   ❑ inefficiency in upper airspace management
      ❑ uncoordinated safe, orderly and expeditious flow of air traffic
         ❑ inadequate contingency planning

② **Air Space Management (ASM) cont...**

❑ **Non- standard use of ATS route designators**
  ❑ When the provision stipulated in the ICARD is not followed.

❑ **Non implementation of effective Standard arrival and departure procedures**

❑ **Non-Implementation of table of ATS 1**
  ❑ Lack of continuity of ATS routes across the region as stipulated in the ANP

② **Air Space Management (ASM) cont…**

❑ **Uncoordinated use of waypoints codes (5-LNC)**
  ❑ ICAO criteria for elimination of Duplications and sound alike codes is not followed
❑ **Plane of division between the upper and lower airspace**
  ❑ Non applicability of uniform division between lower and upper airspace across FIRs and ICAO Regions
❑ **Lack of an effective civil/military cooperation**
  ❑ Ratification of article 3 *bis* of the Convention of the international civil aviation
  ❑ Non compliance with provisions for Civil/MIL cooperation in ATM as per doc 10088.
  ❑ Lack of publication of the procedures for interception of aircraft
      ❑ **Lack of Operational LOAs**
      ❑ ATSUs, AIS, MET etc

③ **Flight Information Service (FIS)**

A deficiency occurs in the area of FIS when:

❑ **Flight Planning procedures**

- there is lack of procedures for identifying missing flight plans
- there is no procedures for acceptance of repetitive flight planning

❑ **Provision of essential aerodrome information:** *critical information on conditions of airport status is missing*– Lack of an effective mechanism for receiving information and reporting

- *Provision of Status of navigational aids* – Lack of procedures for reporting actual status to ATS

❑ **Lack of procedures for the provision of MET information to ATSUs** – including SIGMET and VOLMET

④ COMMUNICATION REQUIREMENTS

Deficiency results from lack of essential facilities to support provision of ATS

- ✓ ***Direct ATS Speech*:** non implementation of ATS Direct speech circuits between ATSUs
- ✓ ***HF and VHF Coverage*** – inadequate VHF and HF coverage
- ✓ ***AIDC*** – Non implementation between ATSUs
- ✓ ***CPDLC*** – Non implementation of CPDLC in Oceanic and large continental airspace
- ✓ ***Interoperability*** – lack of an integrated communication system

⑤ *RVSM REQUIREMENTS*

Deficiencies in the area of RVSM results from:

✓ Lack of provision for the Application of SLOP in the airspace

✓ RVSM approvals and monitoring *– Lack of updated information on approvals and withdrawals of approval for RVSM operations*

✓ RVSM flight levels restriction – *non efficient use of RVSM airspace due to flight level restriction procedures (Inadeqaute FLAS)*

✓ Non provision of RMA data – *lack of mechanism for collection and reporting of RVSM data to the RMA*

✓ No or limited Height Monitoring *– lack of an effective monitoring plan*

⑥ SURVIELLANCE REQUIREMENTS IN ATM

Deficiency results when there is inadequate provision of essential surveillance facilities to support the provision of ATS

Ineffective and inefficient surveillance facilities

➢ Nature of Implementation of the Surveillance Systems

   ➢ Nature of the Procedures for use of the implemented Systems

      ➢Type of Procedures for coordination of traffic with other ATSUs

⑦ PERFORMANCE BASED NAVIGATION (PBN)

❑ **Lack of a database of operational approvals**

❑ **Lack of Implementation of APIRG Conclusions**

   ▪ **RNAV/RNP implementation**

▪ **Implementation of CDO/CCO**

   ▪ **Approach procedures with vertical guidance (APV)**

▪ **Implementation of LNAV only procedures**

⑧ ATM OVERSIGHT

Deficiency in the oversight areas results as:

➢ **Regulations**

- Lack of national regulations to support safe provision of ATS

➢ **Organizational structure**

- Lack of an effective organizational structure in relation to the size of the operations to be oversighted.

➢ **Licensing procedures**

- Lack of mechanism for ensuring licensing requirement for ATC personnel in accordance with ICAO Annex 1

- Lack of mechanism for the testing and maintenance of the English language proficiency for ATC personnel

➢ **SMS implementation**

- Lack of implementation of an effective SMS system

➢ **Implementation of APIRG Conclusion**

- Lack of mechanism for ensuring the compliance with APIRG conclusions

➢ **State database approvals: RSP180/RCP240, RVSM etc**

- Lack of implementation of the requirements for required surveillance and communication performance

9. SEARCH AND RESCUE (SAR)

The deficiency will occur if:

➢ The is an inadequate or lack of a National **SAR PLAN**

➢ **There are no SAR AGREEMENTS signed with the**
  ➢ Neighboring FIRs
  ➢ Local organizations
  ➢ Other government Agencies

➢ **There is no procedure for identifying SAR**
  ➢ Units
  ➢ Facilities
  ➢ Staffing
  ➢ Operational provision (hours of watch)

➢ **SAR PERSONNEL competency**
  ➢ Lack of adequately equipped and trained search and rescue units
  ➢ Lack of adequate survival and medical supplies

➢ **SAREX** – Lack of regular training and conduct of SAR exercises

➢ **SATELLITE AIDED SAR**
  ➢ Lack of implementation for receiving satellite data for SAR (406 MHz)
  ➢ SPOC is not notified in the AIP

Minimum reporting areas in ATM/SAR