



ICAO MID

AIM-ing for quality
QMS Functions Systems & Processes

Webinar

ICAO SARPs and Guidance on QMS in AIM

Radhouan Aissaoui

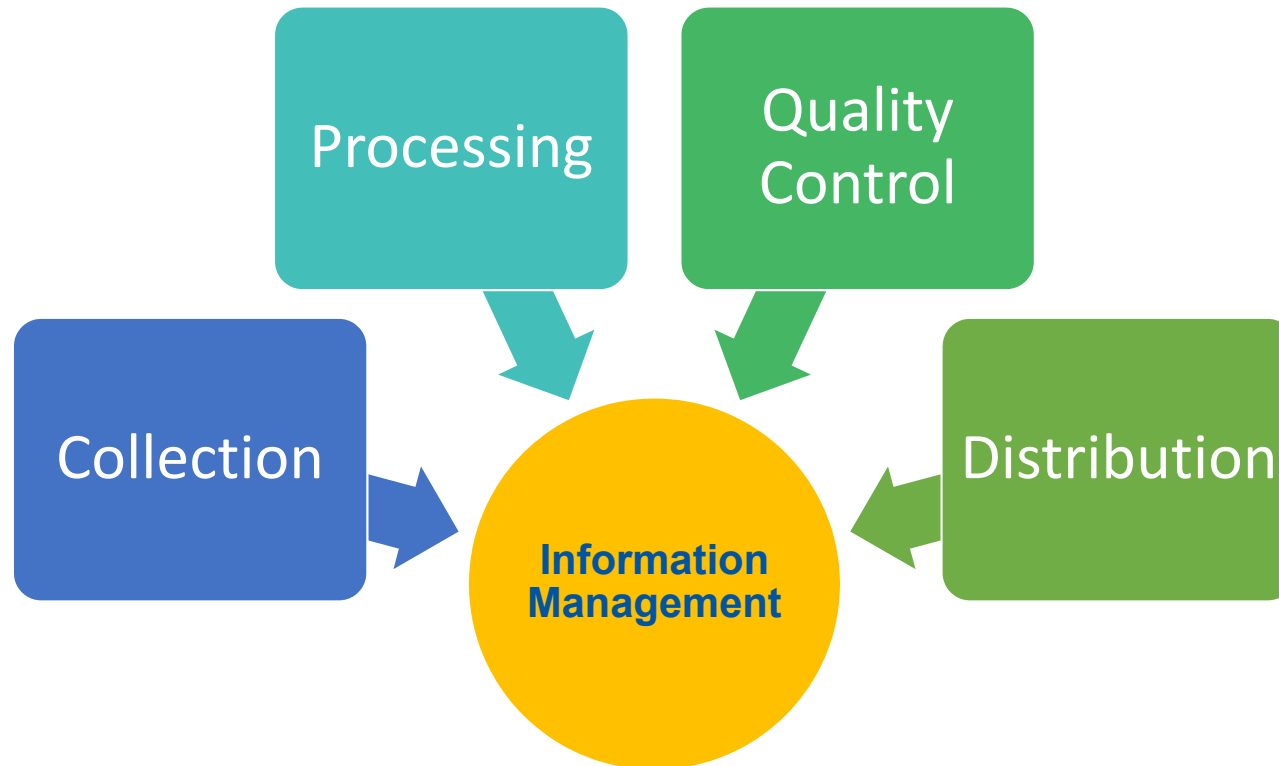
Regional Officer, Information Management (RO/IM)

ICAO MID Office, Cairo





What is Information Management?





Data collection

IDENTIFY DATA ORIGINATORS

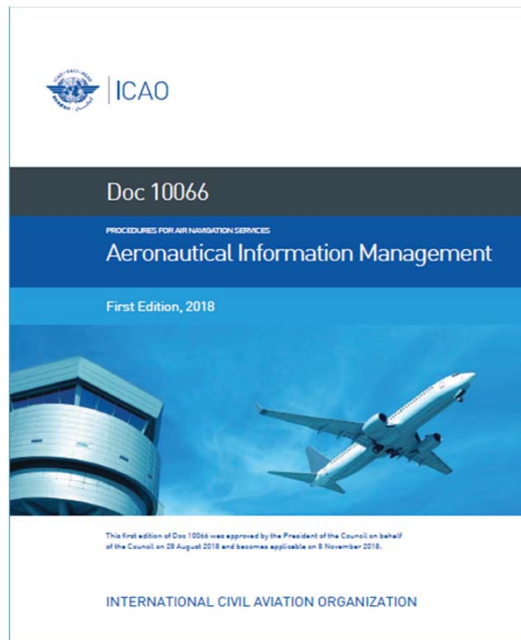
MANAGE THE DATA INTERFACES

FORMALISE THE INTERFACES

DATA TRANSMISSION



Data Catalogue



- PANS-AIM -- Appendix 1 -- Table A1.1 Aerodrome.xlsx
- PANS-AIM -- Appendix 1 -- Table A1.2 Airspace.xlsx
- PANS-AIM -- Appendix 1 -- Table A1.3 ATS_Routes.xlsx
- PANS-AIM -- Appendix 1 -- Table A1.4 IFP.xlsx
- PANS-AIM -- Appendix 1 -- Table A1.5 Navaid.xlsx
- PANS-AIM -- Appendix 1 -- Table A1.6 Obstacles.xlsx
- PANS-AIM -- Appendix 1 -- Table A1.7 GeographicInformation.xlsx
- PANS-AIM -- Appendix 1 -- Table A1.8 Terrain.xlsx
- PANS-AIM -- Appendix 1 -- Table A1.9 Data type.xlsx
- PANS-AIM -- Appendix 1 -- Table A1.10 Other information.xlsx



Data Processing

VERIFICATION

VALIDATION

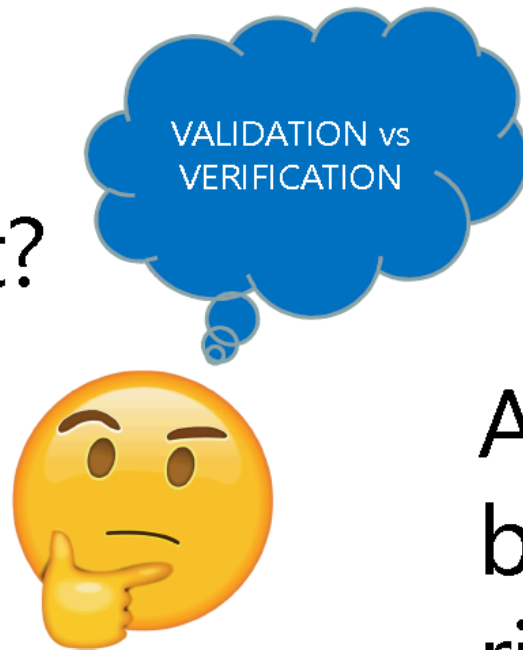
ASSEMBLY

INTEGRATION



VALIDATION AND VERIFICATION

Are we
building the
product right?



Are we
building the
right product?



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QUALITY
CONTROL

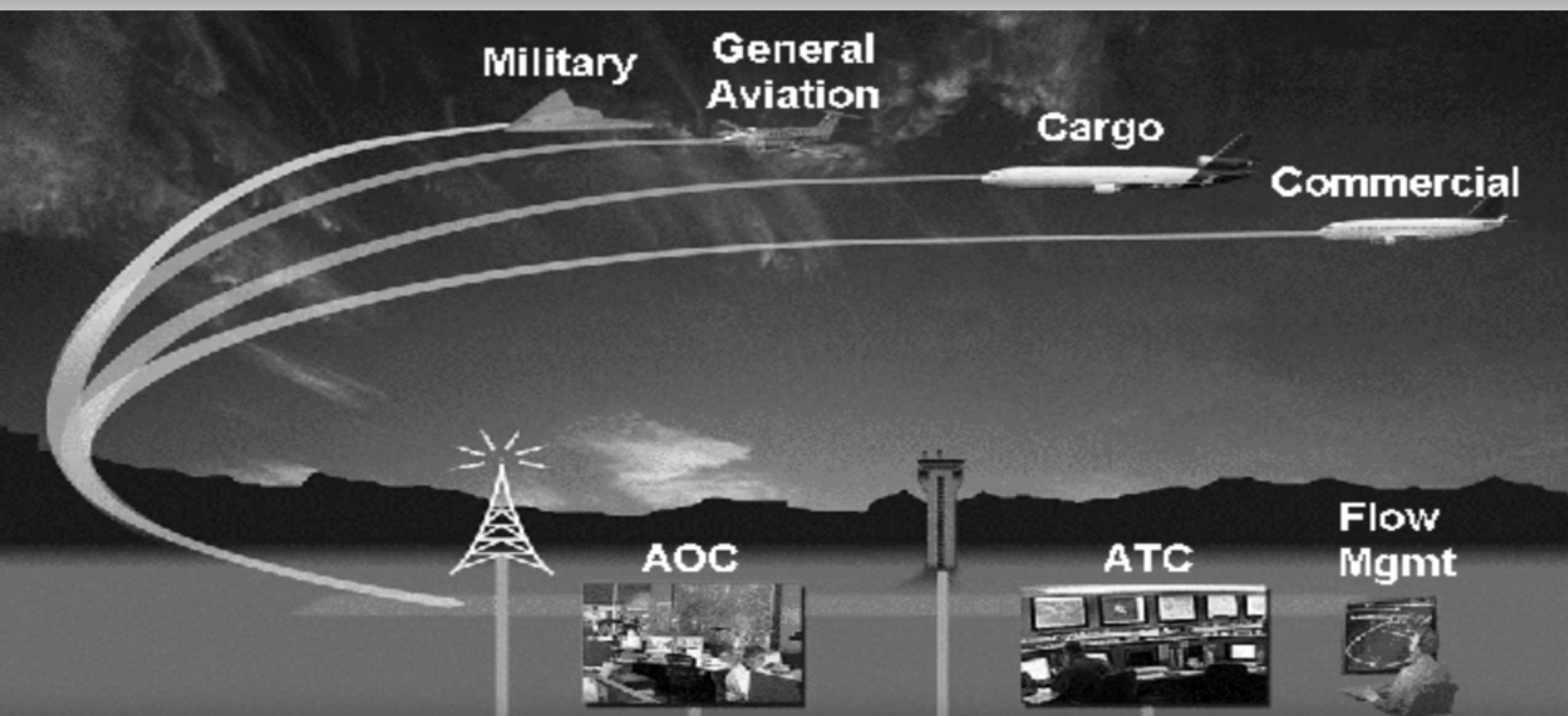


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YOUR PROCESSES

- good and simple process descriptions
- write the operational manuals;
- explain in detail the activities that are part of the process;
- develop checklists that support the activities (if applicable);
- Automate where possible (step-by-step or all at once).

WHY WHAT YOU DO AND DO WHAT YOU SAY



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It is all about controlling your processes
the core of your QMS!



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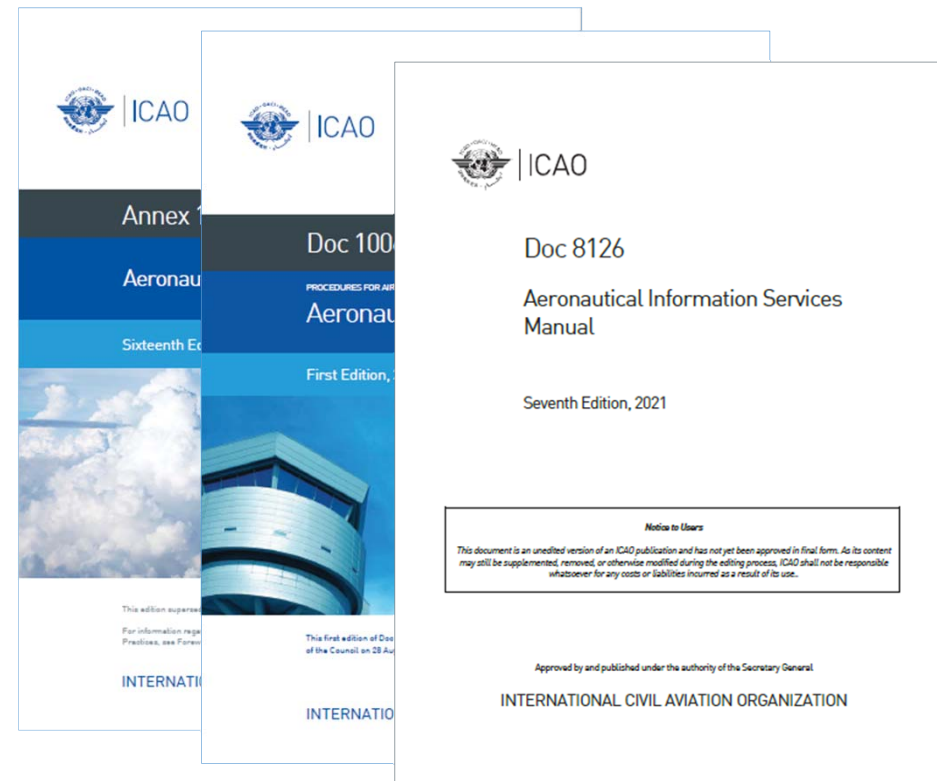
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ICAO SARPs and Guidance on old NOTAM

- Annex 15 – Aeronautical Information Services (16th edition, 2018)
- PANS-Aeronautical Information Management (Doc 10066, 1st edition, 2018)
- Aeronautical Information Services Manual (Doc 8126, 7th edition, 2021)





Annex 15 – Aeronautical Information Services

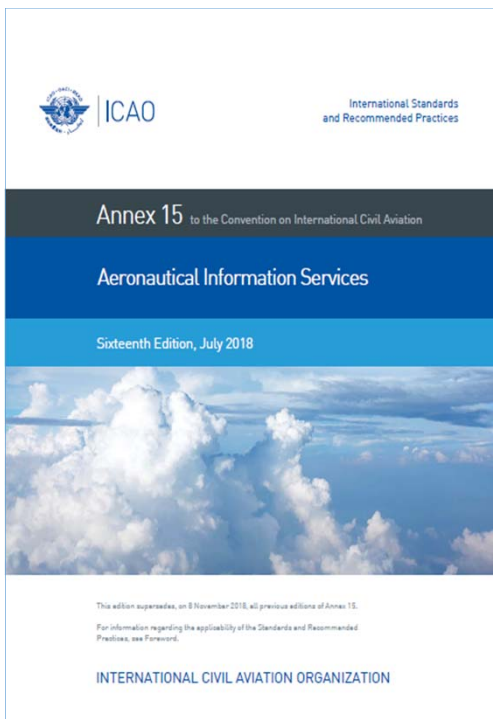
The Annex states that ...

3.6.1 Quality management systems shall be implemented and maintained encompassing all functions of an AIS. The execution of such quality management systems shall be made demonstrable for each function stage.

3.6.2 Recommendation.— Quality management should be applicable to the whole aeronautical data chain from data origination to distribution to the next intended user, taking into consideration the intended use of data.

3.6.3 Recommendation.— The quality management system established in accordance with 3.6.1 should follow the ISO 9000 series of quality assurance standards and be certified by an accredited certification body.

3.6.4 Within the context of the established quality management system, the competencies and the associated knowledge, skills and abilities required for each function shall be identified, and personnel assigned to perform those functions shall be appropriately trained. Processes shall be in place to ensure that personnel possess the competencies required to perform specific assigned functions.





Annex 15 – Aeronautical Information Services

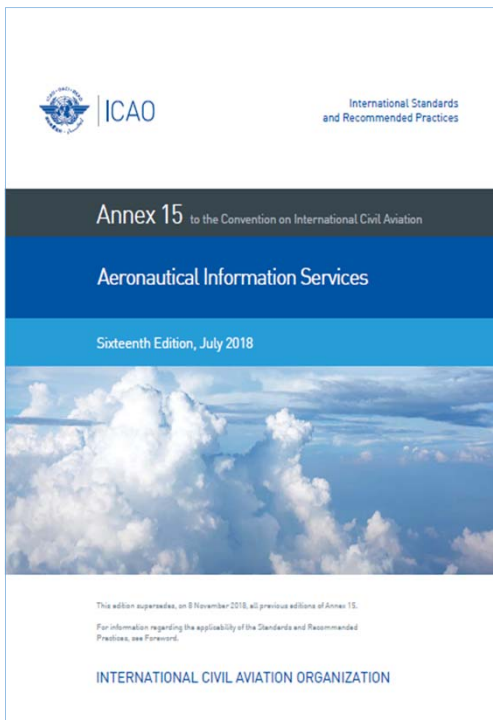
the Annex further states that ...

3.6.5 Each quality management system shall include the necessary policies, processes and procedures, including those for the use of metadata, to ensure and verify that aeronautical data is traceable throughout the aeronautical information data chain so as to allow any data anomalies or errors detected in use to be identified by root cause, corrected and communicated to affected users.

3.6.6 The established quality management system shall provide users with the necessary assurance and confidence that distributed aeronautical data and aeronautical information satisfy the aeronautical data quality requirements.

3.6.7 All necessary measures shall be taken to monitor compliance with the quality management system in place.

3.6.8 Demonstration of compliance of the quality management system applied shall be by audit. If nonconformity is identified, initiating action to correct its cause shall be determined and taken without undue delay. All audit observations and remedial actions shall be evidenced and properly documented.





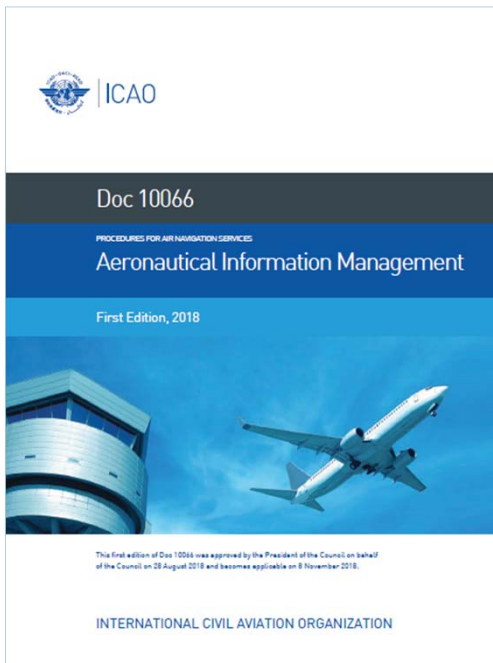
PANS – Aeronautical Information Management

PANS-AIM states that ...

3.1.1 The **general requirements for a QMS shall be to:**

- a) **develop** a quality manual that includes the scope of a QMS as applied to AIM processes;
- b) **identify** the processes needed for the QMS;
- c) **determine** the sequence and interaction of these processes;
- d) **determine** criteria and methods required to ensure the effective operation and control of these processes;
- e) **ensure** the availability of information necessary to support the operation and monitoring of these processes;
- f) **measure, monitor and analyze** these processes, and implement action necessary to achieve planned results and continual improvement; and
- g) **maintain** appropriate records that are necessary to provide confidence of conformity of the processes and resulting product.

3.1.2 In the framework of the QMS, a user feedback system **shall be defined and implemented.**





Aeronautical Information Services Manual

Doc 8126, 7th edition, states that ...

2.3.5 States should establish requirements for a QMS in the AIS organization as part of the regulatory framework.

3.2.4.1 A QMS consists of a framework of policies, processes and procedures through which an AIS provider manages the inter-related parts of its business to achieve its objectives.

3.2.4.6 To demonstrate to users that the required quality of aeronautical data and aeronautical information has been met, States' AIS organizations must establish a QMS and put in place quality management procedures at all stages of the aeronautical data and aeronautical information process.

3.2.4.7 ISO 9000 accreditation is one way for a State's AIS to demonstrate that a QMS is in place which will enable them to meet established user requirements.

3.2.4.8 As an integral part of the QMS, all personnel should possess the required competencies necessary to operate within the AIM environment.

3.2.4.9 To implement and continually improve QMS, it is necessary to advocate, create and maintain a culture dedicated to quality and safety.



ICAO

Doc 8126

Aeronautical Information Services
Manual

Seventh Edition, 2021

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INTERNATIONAL CIVIL AVIATION ORGANIZATION



ICAO Working Group – Aeronautical Information Management



- IMP.006.01 AIM Global Implementation Support
- WG-A Quality Manual Focus Group (FG-QM)
- FG-QM was tasked to create guidance material for a quality management system in the AIM domain
- Draft AIM Quality Manual developed in accordance with IMP job card and structured as ISO 9001:2015.
- FG-QM presented the draft quality manual for WG-A to review and endorse for distribution.



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THANK YOU

