



Agenda Item 3: Implementation of the quality management system in AIM units

Measuring quality

(Presented by the Secretariat)

SUMMARY	
This working paper presents recommendations for the implementation of quality measurements in aeronautical information services.	
REFERENCES	
<ul style="list-style-type: none">• Annex 15 to the Convention on International Civil Aviation• ISO 9001:2015• AIM/QMS implementation survey results	
ICAO strategic objectives:	<i>A - Safety</i> <i>B- Air navigation capacity and efficiency</i> <i>E – Environmental protection</i>

1. **Introduction**

1.1 The implementation of a quality management system in AIS/AIM services appears as a standard in Annex 15, Ch. 3, 3.7.1.

1.2 Annex 15 recommends that the quality management system (AIM/QMS) established pursuant to 3.7.1 should be in accordance with ISO 9000 series of quality assurance standards and be certified by an approved organisation.

1.3 The States that have implemented and certified the AIM/QMS have done so based on the requirements contained in ISO 9001 in its 2008 version.

1.4 The Secretariat has sent a State letter with a survey on the impact of AIM/QMS implementation on services provided to users.

2. **Discussion**

2.1 At the PPRC/4 meeting, it was stated that the modification of ISO 9001 in September 2015 would affect those States that had already implemented and certified their AIM/QMS, as well as the schedule of tasks to be performed by States for AIM/QMS implementation.

2.2 At the SAM/AIM/9 meeting, it was recalled that ISO 9001 had undergone some modifications. These changes were published in September 2015.

2.3 The Third Meeting of Air Navigation and Safety Directors (AN&FS/3) reviewed the impact of these changes on States, noting that the transition period for certifications issued under ISO 9001:2008 would conclude in September 2018, at which time all certifications would expire and re-certification would be required under ISO 9001:2015.

2.4 Aeronautical information services have focused on the need to implement AIM/QMS, but no analysis has been made of the impact of QMS on service provision. The question that the AIS/AIM service provider should ask is whether AIM/QMS implementation has added value to the services provided. Certifying entities may certify quality management processes but providers should be able to measure the impact of quality implementation and determine whether the products and data provided with quality really meet quality objectives. The question is: How does an AIS/AIM provider become reliable? Quality is based on the trust users have on their data.

2.5 This trust is based on a good image and reputation of consistently offering aeronautical information products and services with quality assurance. An aeronautical information product or service is a promise of assurance if it meets all relevant regulations and the required quality on an ongoing basis.

2.6 Quality management must involve an acceptance of the overall AIS management system and must contribute to safety. An AIS quality management system must provide products and services of “real quality” and not only of “formal quality” to the user. Only when an AIS organisation “experiences” quality rather than offering just “formal” quality will it bring tangible benefits for the user. The objective must be to offer “real” rather than “formal” quality.

2.7 AIS/QMS implementations have been mainly aimed at meeting a standard contained in Annex 15. Following the implementation experience, States should ask themselves whether QMS implementation has really added value to the services provided.

2.8 In order to build a reliable AIS/AIM service, it is advisable to determine the efficacy of QMS in the AIM area by:

- ✓ Assessing management principles (work environment, risk management, experience etc.).
- ✓ Assessing processes to define the efficiency of process criteria, process effectiveness and commitment to quality.
- ✓ Assessing the organisation (quality culture, compliance with requirements).
- ✓ Assuring data quality and consistency for aviation users, recognising what they need, and offering services that meet or exceed their expectations.
- ✓ Ensuring compliance and contributing to safety, respecting applicable policies and regulatory standards with full transparency.
- ✓ Striving to avoid data incidents in aeronautical products and services, applying a continuous improvement approach.
- ✓ Securing the commitment of all those involved in the data chain and at all levels of the AISP organisation in order to help prevent data incidents.

2.9 The objective must be to increase customer satisfaction by reducing the number of major non-conformities identified in internal and external audits and further reducing the cost of working with poor-quality data. Compliance with the above will result in compliance with data quality requirements (e.g., ICAO or State data catalog) and a reduction of incidents related to the use of data.

2.10 States must be aware that, in order to meet the objective, they must measure the real quality of their products. In order to attain high quality performance, the following should be done:

- ✓ create awareness within the organisation as to quality and QMS requirements;
- ✓ discuss and define assessment criteria for the organisation;
- ✓ identify and assess its management principles;
- ✓ analyse and assess its processes;
- ✓ assess the organisation;
- ✓ discuss the results within the organisation; and
- ✓ discuss or compare with others.

2.11 Quality standards only confirm a high level in the system but do not ensure its efficacy and success. Every effort must be made to guarantee a practical rather than formal operation of the management system. Measurement of AIM/QMS effectiveness will contribute to the development of the AIM organisation. The objective must be to ensure a reliable aeronautical information service/management.

3. **Conclusion**

3.1 States must strive to implement a real rather than formal QMS. The objective must be to provide data and services with real quality assurance.

3.2 States, especially AIS/AIM providers, should be able to measure the quality of their data and information/data acquisition and processing activities. They must be capable of measuring data quality throughout the chain.

3.3 Finally, system-wide commitment and identification with the service should convey the image of service reliability based on real QMS.

4. **Suggested action**

4.1 The Meeting is invited to:

- a) analyse the information provided in this working paper;
- b) discuss the quality measures that could be applied to quality management systems already implemented;
- c) take any other measures it may deem appropriate;
- d) review the Guide in support of QMS implementation in the SAM Region and, if deemed appropriate, update it; and
- e) agree on any action it may deem appropriate.
