



INTERNATIONAL CIVIL AVIATION ORGANIZATION

AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
EIGHTEENTH MEETING (APIRG/18)
Kampala, Uganda (27 – 30 March 2012)

Agenda Item 3.6: Aeronautical Meteorology (MET)

QUALITY MANAGEMENT SYSTEM

(Presented by South Africa)

SUMMARY
The paper presents the challenges and experiences of South Africa in the implementation of a Quality Management System (QMS)
Action by the meeting is at paragraph 4.1
REFERENCES:
Related ICAO Strategic Objective(s):

1. INTRODUCTION

1.1 The meeting will recall that ICAO first introduced quality-related standards and recommendations in Annex 15– *Aeronautical Information Service (AIS)* in January 1998. The recommended practices pertaining to QMS implementation in the field of aeronautical meteorology were included in Amendment 72 to Annex– *Meteorological Service for International Air Navigation* with applicable date of 1 November 2001.

1.2 During its 189th session, ICAO upgraded this recommendation to a standard in Amendment 75 to Annex 3 with a deadline of 15 November 2012 for National Meteorological and Hydrological Service (NMHS) to implement a properly organised QMS. This was largely driven by the requirements from users for the provision of quality assured aviation services and products.

1.3 Further, the meeting may recall that provisions pertaining to QMS are included in Annex 3, Chapter 2, 2.2. The APIRG conclusions relating to a QMS are as follows: Conclusions 14/40, 14/55, 16/59.

2. DISCUSSIONS

2.1 South Africa started developing and implementing its QMS in 2008. IRCA Global was involved in the initial scoping and development of a shell for the South African Weather Service (SAWS) QMS from September 2007 to August 2008. The certificate of compliance with ISO 9001: 2008 standards on QMS was awarded in November 2011. A QMS specialist was employed full-time on a medium term contract (March 2008 – February 2013) to completely develop all aspects of the SAWS QMS.

2.2 *Challenges:* SAWS implemented QMS throughout the organisation from the start, and this proved to be a tremendous load of work. At first the process of QMS implementation was very challenging, as it involved establishment and documentation of all processes and procedures. This included managers at all levels having to arrange their work and processes within the framework of the QMS. The budget for QMS development and implementation was a challenge, which slowed the process of the development of quality champions. Initially, there was lack of willingness by critical role players to document their processes and procedures in line with QMS requirements. This improved with time as people realized the value of having QMS. Experienced staff were not willing to immediately embrace QMS, due to uncertainty of how the process would impact on their day to day operations.

2.3 Staff had to be sensitized about the advantages, reasons and the organisational needs to implement QMS. The culture had to be changed to that of customer-focus which included the provision of services and products in accordance with customer requirements. QMS implementation requires capacity, especially at operational level. Reasonable capacity and expertise in terms of personnel had to be built. This involved organising QMS workshops and special QMS sessions to raise awareness. Some employees were trained as internal auditors, quality champions and were given the sense of ownership of the system.

2.4 With regard to maintenance of measuring and monitoring devices, the lack of enough trained meteorological technicians was a challenge. This meant that some of the measuring devices were not suitably calibrated, verified and controlled. A decision had to be taken to outsource the process of calibration of instruments to an external party, due to both the required expertise and costs involved.

2.5 *Experiences:* Our experience is that implementing a successful QMS requires commitment from everybody at all levels within the organisation. The support from top management creates a perfect platform and environment for an effective implementation of QMS. When the staff sees that the commitment is evident from the top, and the change management process is in place, the QMS implementation will be embraced. The period it takes to implement QMS can be shortened considerably, provided that all aspects required (i.e. plan, expertise, resources and commitment) are in place.

2.6 Further, our experience shows that top management needs to provide the required support throughout all stages of QMS implementation and take responsibility of the system. Once this is in place, the rest will be easier and staff will embrace QMS. Our experience has shown that implementing QMS increases internal communication which also breaks down silos.

2.7 It is important to involve the employees in the development of documentation and processes. Employees also tend to have a sense of ownership of the system when they are part of the process going forward. Furthermore, our experience shows that, without proper instrument calibration, verification and maintenance of monitoring and measuring devices, it becomes difficult to assure the quality of data, products and services provided.

Future challenges

2.8 Quality Management calls for continual improvement as part of its eight fundamental principles. This remains a challenge to the organisation, taking into consideration that we have third party maintenance audits every year. Costs for the implementation and maintenance of QMS are resource intensive. For those without cost recovery in place this may slow the whole process.

3. CONCLUSION

3.1 Based on the foregoing challenges, experiences and considering the current status of QMS implementation in Africa, the meeting may wish to note that meeting the deadline of November 2012 will be a huge task. This deadline is already within sight and more measures need to be put in place to fast-track the implementation of QMS by the set date. Such measure may include cooperation within regional structures such as SADC and MASA and this can be achieved by sharing of expertise and resources.

3.2 The meeting will recall that resource availability is the biggest challenge in most States in Africa. The majority of States are not on cost recovery and the insufficient number of air craft movements in these States is adding to the problem. Without the availability of resources, many States will find it impossible to implement a properly organised QMS to meet the ICAO deadline of November 2012.

3.3 As mentioned in the foregoing, drastic measures are required to assist the States to meet the ICAO deadline for implementing QMS. The twinning partnership and bilateral arrangements between States in their respective regions could be considered. This will, however, require resources and States may have to share the costs involved. ICAO and WMO could also assist in this regard by arranging for alternative sources of funding.

3.4 In view of the above, the meeting is invited to adopt the following conclusion

**DRAFT CONCLUSION 18/XX: ALTERNATIVE FUNDING SOURCES FOR THE
ESTABLISHMENT AND IMPLEMENTATION OF
QMS FOR THE PROVISION OF AERONAUTICAL
METEOROLOGICAL SERVICE**

That ICAO and WMO investigate other possible sources of funding besides cost recovery to assist States willing to enter into a twinning or bilateral arrangements in order to fast-track the implementation of QMS before ICAO deadline of 15 November 2012.

4. ACTION BY THE MEETING

4.1 The meeting is invited to:

- a) Note the information presented in this paper and;
- b) Agree to the concept of funding in this working paper.
