



Agenda Item 2: Review of Project H3 – Implementation of the MET Information Quality Management System (QMS/MET)

Changes in STANDARD ISO 9001

(Presented by the Secretariat)

| SUMMARY | |
|---|---|
| This working paper presents the changes in Standard ISO 9001 and their effect in the Implementation of the Quality Management System in aeronautical meteorological services (QMS/MET). | |
| References: | |
| <ul style="list-style-type: none">• Annex 3 – <i>Meteorological Service for International Civil Aviation</i>• Guide for the Implementation of the Quality Management System in the CAR/SAM Regions• STANDARD ISO 9001• Conclusions of QMS/MET Seminars | |
| 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 STANDARD contained in Annex 3, Chapter 2, paragraph 2.2.2, requests that the aeronautical meteorological services provider establishes and implements a properly organized quality system.

1.2 Also, Annex 3, Chapter 2, paragraph 2.2.3, recommends that the system should be in conformity with the International Organization for Standardization (ISO) 9000 series quality assurance standards and should be certified by an approved organization.

1.3 The Secretariat has provided a QMS/MET Guide for the CAR/SAM Regions to assist States in the implementation of the standard, which has been prepared in accordance with the requirements of STANDARD ISO 9001.

1.4 STANDARD ISO 9001 has experienced modifications. This change has been published in September 2015.

2. **Analysis**

2.1 The implementation of the STANDARD of Chapter 2, paragraph 2.2.1 of ICAO Annex 3 by the States of the SAM Region has not been an easy task.

2.2 In spite of the efforts developed, not all States have completed QMS/MET Implementation.

2.3 In QMS/MET Seminar, October 2014, States were requested to make all the efforts to complete QMS implementation and certification before June 2015, since Standard ISO 9001 was in a process of change, and this will affect the effective period of certifications, as well as the documentation of the QMS in process of implementation.

2.4 As it was expected, the amendments to Standard ISO 9001 have been published on 15 September 2015. The new structure of Standard ISO 9001 is presented in **Appendix A** to this working paper. This situation would affect future implementations, since the issuance of a new version of the standard will represent a transition period of three years, which has started from the moment of publication of the standard until the end of 2018. Therefore, the certificates issued regarding the standard of 2008 will not be valid when this period ends.

2.5 The Meeting should consider that all the initial certifications issued starting the first months of 2017 should be under the new standard.

2.6 This change will also affect the QMS/MET Guide, which should be updated in accordance with the new standards of Standard ISO 9001. A correlation matrix between Standard ISO 9001:2015 and Standard ISO 9001:2008 is shown in **Appendix B**.

2.7 The QMS/MET and Personnel Competency Seminar carried out in September 2015 reviewed the referred Guide in view of the changes of ISO 9001:2015, and drafted the items that should be changed.

3. **Discussion**

3.1 The Meeting should consider that the changes of Standard ISO 9001 affect all the States that have already certified and those which have not yet implemented the QMS/MET.

3.2 The Meeting should consider that it is necessary to establish a plan to be able to adjust to the new standards within the transition period of three years after the publication.

3.3 In addition, the Meeting should consider the review of the Guide to support the QMS/MET Implementation in the CAR/SAM Regions. For this issue, the Meeting could assign an expert to work with the Secretariat in the update of the guide.

4. **Suggested action**

4.1 The Meeting is invited to:

- a) take note of the information provided in this working paper;
- b) review and analyze Appendices A and B;

- c) review the Guide to support QMS/MET Implementation in the CAR/SAM Regions and, if deemed appropriate, update it; and
- d) agree on other actions as necessary.

APPENDIX A

New structure of Standard ISO 9001:2015

One of the main changes in the Standard will be its structure. These changes are originated from the adjustment of the common scheme from Annex SL.

The titles that will be part of this structure are the following:

- 0. Introduction
- 1. Scope
- 2. Normative references
- 3. Terms and definitions
- 4. Context of the organization
- 4.1. Understanding the organization and its context
- 4.2. Understanding the needs and expectations of interested parties
- 4.3 Determining the scope of the quality management system
- 4.4 Quality management system and its processes
- 5. Leadership
- 5.1. Leadership and commitment
- 5.2 Policy
- 5.3 Organizational roles, responsibilities and authorities
- 6. Planning
- 6.1 Actions to address risks and opportunities
- 6.2 Quality objectives and planning to achieve them
- 6.3 Planning of changes
- 7. Support
- 7.1 Resources
- 7.2 Competence
- 7.3 Awareness
- 7.4 Communication
- 7.5 Documented information
- 8. Operation
- 8.1 Operational planning and control
- 8.2 Requirements for products and services
- 8.3 Design and development of products and services
- 8.4 Control of externally provided processes, products and services
- 8.5 Production and service provision
- 8.6 Release of products and services
- 8.7 Control of nonconforming outputs
- 8.8 Nonconformities of products and services
- 9. Performance evaluation
- 9.1 Monitoring, measurement, analysis and evaluation
- 9.2 Internal audit
- 9.3 Management review
- 10. Improvement
- 10.1 General
- 10.2 Nonconformity and corrective action
- 10.3 Continual improvement

APPENDIX B**CORRELATION MATRIX OF THE MAIN CHANGES BETWEEN
STANDARD ISO 9001:2015 AND STANDARD ISO 9001:2008**

| ISO 9001:2015 | ISO 9001:2008 |
|--|--|
| 0. Introduction | 0. Introduction |
| 0.1 General | 0.1 General |
| 0.2 Principles of quality management | |
| 0.3 Approach to processes | 0.2 Process approach |
| 0.4 Relationship with other management systems | 0.3 Relationship with ISO 9004 |
| 1. Quality management systems - Requirements | 1. Quality management systems - Requirements |
| 1. Scope | 1. Scope |
| 2. Normative references | 2. Normative references |
| 3. Terms and definitions | 3. Terms and definitions |
| 4. Context of the organization | |
| 4.1 Understanding the organization and its context | |
| 4.2 Understanding the needs and expectations of interested parties | |
| 4.3 Determining the scope of the quality management system | 4.2.2 Quality manual |
| 4.4 Quality management system and its processes | 4.1 General requirements |
| 5. Leadership | |
| 5.1 Leadership and commitment | 5.1 Management commitment |
| 5.1.1 General | 5.4.2 Quality management system planning |
| 5.1.2 Customer focus | 5.2 Customer focus |
| 5.2 Policy | 5.3 Quality policy |
| 5.3 Organizational roles, responsibilities and authorities | 5.5.1 Responsibility and authority |

| ISO 9001:2015 | ISO 9001:2008 |
|---|---|
| 6. Planning | |
| 6.1 Actions to address risks and opportunities | |
| 6.2 Quality objectives and planning to achieve them | 5.4.1 Quality objectives |
| 6.3 Planning of changes | 5.4.2. Quality management system planning |
| 7. Support | |
| 7.1 Resources | |
| 7.1.1 General | 6.1 Provision of resources |
| 7.1.2 People | 6.2 Human resources |
| 7.1.3 Infraestructure | 6.3 Infraestructure |
| 7.1.4 Environment for the operation of processes | 6.4 Work environment |
| 7.1.5 Monitoring nad measuring resources | 7.6 Control of monitoring and measuring equipment |
| 7.1.6 Organizational knowledge | |
| 7.2 Competence | 6.2.2 Competence, training and awareness |
| 7.3 Awareness | 6.2.2 Competence, training and awareness |
| 7.4 Communication | 5.5.3 Internal communication |
| 7.5 Documented information | 4.2 Documentation requirements |
| 8. Operation | |
| 8.1 Operational planning and control | 7.1 Planning of product realization |
| 8.2 Requirements for products and services | 7.2 Customer-related processes |
| 8.3 Design and development of products and services | 7.3 Design and development |
| 8.3.1 General | |
| 8.3.2 Design and development planning | 7.3.1 Design and development planning |

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| ISO 9001:2015 | ISO 9001:2008 |
|---|---|
| 8.3.3 Design and development inputs | 7.3.2 Design and development inputs |
| 8.3.4 Design and development controls | 7.3.4 Design and development review 7.3.5 Design and development verification 7.3.6 Design and development validation |
| 8.3.5 Design and development outputs | 7.3.3 Design and development outputs |
| 8.3.6 Design and development changes | 7.3.7 Control of design and development changes |
| 8.4 Control of externally provided processes, products and services | 7.4 Purchasing |
| 8.5 Production and service provision | 7.5 Production and service provision |
| 8.5.1 Control of production and service provision | 7.5.1 Control of production and service provision 7.5.2 Validation of processes for production and service provision |
| 8.5.2 Identification and traceability | 7.5.3 Identification and traceability |
| 8.5.3 Property belonging to customers or external providers | 7.5.4 Customer property |
| 8.5.4 Preservation | 7.5.5 Preservation of product |
| 8.5.5 Post-delivery activities | |
| 8.5.6 Control of changes | |
| 8.6 Release of products and services | 8.2.4 Monitoring and measurement of product |
| 8.7 Control of nonconforming outputs | 8.3 Control of nonconforming products |
| 9. Performance evaluation | |
| 9.1 Monitoring, measurement, analysis and evaluation | 8.2.3 Monitoring and measurement of processes |
| 9.1.1 General | 8.2.3 Monitoring and measurement of processes |
| 9.1.2 Customer satisfaction | 8.2.1 Customer satisfaction |
| 9.1.3 Analysis and evaluation | 8.4 Analysis of data |
| 9.2 Internal audit | 8.2.2 Internal audit |
| 9.3 Management review | 5.6 Management review |

| ISO 9001:2015 | ISO 9001:2008 |
|--|-----------------------------|
| 10. Improvement | 8.5 Improvement |
| 10.1 General | |
| 10.2 Nonconformity and corrective action | 8.5.2 Corrective action |
| 10.3 Continual improvement | 8.5.1 Continual improvement |