International Civil Aviation Organization SAM/AIM/4-WP/04
South American Regional Office 17/09/12
Fourth SAM AIM Multilateral Meeting for AIS-AIM Transition (SAM/AIM/4)
Lima, Peru, 15-19 October 2012

Agenda Item 3: Implementation of the Quality Management System in AIM Units

(Presented by the Secretariat)

Summary

This working paper presents the deliverables of GREPECAS Project G3 on the implementation of quality management in aeronautical information services, for analysis and correction by the States as they may deem appropriate.

References:

- Annex 15 to the ICAO Convention
- SAM/AIM/2 multilateral meeting
- SAM/AIM/3 multilateral meeting
- GREPECAS Project G3

ICAO strategic objectives:	*A – Safety* *C – Environmental protection*

1 Background

1.1 The SAM/AIM/2 and SAM/AIM/3 meetings recognised the importance of making quick progress in the Region towards the elimination of AIS deficiencies, with emphasis on those directly affecting compliance with the SARPs contained in Annexes 4 and 15.

1.2 In this sense, the meetings highlighted the importance of completing the implementation of WGS84, the quality management system, the effective compliance with the AIRAC system, the provision of electronic terrain and obstacle data (e-TOD), the implementation of geographical information systems (GIS), and the availability of integrated aeronautical information documentation (IAIP).

2 Discussion

2.1 The Region is focused on the completion of phase 1 of the AIS-to-AIM transition roadmap, so as to proceed to the next phase and meet the requirements of the ATM operational concept by providing aeronautical information and data in accordance with current user requirements.

2.2 To this end, the Region, under the supervision of the GREPECAS Programme and Project Committee, is developing three projects in the AIM area. Project G3 focuses on quality management to prevent performance-based navigation (PBN) from having a negative impact on the Region due to lack of quality processes in the management of aeronautical information and the provision of aeronautical data. **Appendices A and B** to this working paper contain the Project description and GANTT template, respectively.

2.3 Regarding the above, under the auspices of Project RLA/06/901, an expert was hired to draft a Plan for the Implementation of a Quality Management System for Aeronautical Information Services, addressing each article of ISO 9001:2008, the content of each component, the framework for the implementation of the quality management system, the responsibilities of the various areas, and the actions required for its implementation. The Excel template of the plan is shown in **Appendix C.**

2.4 Likewise, Mr. Oscar Dioses, the regional project coordinator, developed the 6 models for the documented process that appear in **Appendix D** to this working paper.

3. Suggested action

3.1 The Meeting is requested to:

a) analyse and propose adjustments to the quality management project (**Appendices A and B**) as it may deem advisable,

b) review **Appendix C** and propose additions or corrections as it may deem necessary, and

c) analyse the 6 models for ISO 9001.2008 documented procedures shown in **Appendix D** to this working paper and propose modifications as it may deem appropriate.

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APPENDIX A

SAM Region	**PROJECT DESCRIPTION (DP)**	PD N° G3	
Programme	**Project Title**	**Start**	**End**
AIM (ICAO programme coordinator: Roberto Arca Jaurena)	Assessment and development of the AIM QMS in SAM States Project coordinator: Oscar Dioses (Peru) Experts contributing to the project: Lidia Cáceres (Peru) SAM/AIM IG David Díaz (Peru)	03/10/11	31/12/12
Objective	Support the implementation of improvements to the guidance material on the implementation of a quality management system in the AIM digital/electronic environment in the SAM Region, based on the regional performance objectives of the performance-based implementation plan for the SAM Region.		
Scope	The project contemplates the assessment and identification of implementation levels associated to quality management in AIM services in the Region. Drafting of an action plan and guides for the implementation of QMS in the AIM digital/electronic environment.		
Metrics	Number of States with ISO 9001:2008 QMS certification		
Goals	50% of States having implemented ISO 9001:2008 by 2012		
Strategy	The implementation of project activities will be coordinated amongst project members, the project coordinator and the programme coordinator, mainly through teleconferences (GoToMeeting tool) as well as meetings that may be held from time to time concurrently with events scheduled in the work programme. The Project Coordinator will coordinate with the Programme Coordinator the inclusion of additional experts if so required by the tasks and work to be performed. The results of the work done will be submitted to State experts in the form of a final consolidated document for analysis, revision, and approval, and will be submitted by the Programme Coordinator to the GREPECAS PPRC.		

Justification	The AIM quality management system must give users the necessary assurance that the distributed aeronautical information/data meet quality requirements in terms of accuracy, resolution, and integrity. A close relationship with other projects is needed in order to collect the operational requirements of the aforementioned applications and their respective tentative implementation dates.
Related projects	It is related to Projects G1 "Developments for the provision of terrain and obstacle data - ETOD" and G2 " Aeronautical information/data management"

Project deliverables	**Relationship with the Regional Performance-based Plan (PFF)**	**Responsible party**	**Status of implementation***	**Delivery date**	**Remarks**
Prepare surveys to establish the levels of compliance and implementation of the AIM QMS based on ICAO guides	PFF: SAM AIM/01	ICAO coordinator		25/11/11	Completed on schedule.
Circulate surveys to States	PFF: SAM AIM/01	ICAO coordinator		17/02/12	Completed on schedule.
Collect and tabulate information from the States	PFF: SAM AIM/01	ICAO coordinator		13/04/12	Completed on 30/03/12.
Describe the steps for QMS implementation	PFF: SAM AIM/01	SAM/AIM/WG		30/03/12	Completed on schedule.
QMS self-evaluation questionnaire	PFF: SAM AIM/01	David Diaz Peru		30/03/12	Completed on schedule.

Template with QMS assessment results	PFF: SAM AIM/01	David Diaz Peru		30/03/12	Completed on schedule.
Generate implementation report	PFF: SAM AIM/01	ICAO coordinator Oscar Dioses Peru		31/05/12	Will be completed on schedule.
QMS action plan	PFF: SAM AIM/01	Oscar Dioses Peru		24/08/12	Estimated to be completed on schedule. Project deliverables may vary once the Action Plan is defined.
Model letter of agreement between States and service providers to ensure the quality of information and AIM data exchange.	PFF: SAM AIM/01	TBD		09/08/12	Start date 04/06/12. This task may be delayed due to lack of an expert to perform it. A solution is expected before the starting date.
Collect information on certifications and generate report on ISO 9001:2008 certifications in the SAM Region	PFF: SAM AIM/01	ICAO coordinator		30/11712	Estimated to be completed on schedule.
Necessary resources	Designation of experts to execute some of the deliverables. Greater commitment of States to support coordinators and experts that are working.				

**Grey* *Task not started*
Green *Activity underway as scheduled*
Yellow *Activity started with some delay but would be completed as scheduled*
Red *This activity has not been implemented as scheduled and mitigation measures are required*

MS Project timetable with tasks, sub-tasks, deliverables, and responsible parties

APÉNDICE A

Región SAM	**DESCRIPCION DEL PROYECTO (DP)**	DP N° G3	
Programa	**Titulo del Proyecto**	**Fecha inicio**	**Fecha término**
AIM (Coordinador OACI del Programa: Roberto Arca Jaurena)	Evaluación y desarrollo del QMS aplicado a la AIM de los estados de la Región SAM Coordinador del proyecto: Oscar Dioses (Perú) Expertos contribuyentes al proyecto: Lidia Cáceres (Perú) SAM/AIM IG David Díaz (Perú)	03/10/11	31/12/12
Objetivo	Apoyar la implantación de mejoras a las guías aplicables al sistema de gestión de la calidad en el entorno digital/electrónico del AIM en la región SAM en base a los Objetivos regionales de performance del Plan de implementación basada en la Performance para la Región SAM.		
Alcance	El alcance del proyecto contempla la evaluación e identificación de los niveles de implantación asociados a la gestión de la calidad en los servicios AIM de la región. Elaboración de un Plan de acción y guías para implantación del QMS en el entorno digital/electrónico del AIM.		
Métricas	Número de Estados Certificados QMS ISO 9001:2008		
Metas	50% de Estados con la Norma ISO 9001:2008 implantada en el año 2012		
Estrategia	La ejecución de las actividades del Proyecto será coordinada a través de las comunicaciones entre miembros del proyecto, el coordinador del proyecto y el coordinador del programa principalmente a través de teleconferencias (aplicación GoToMeeting) así como eventuales reuniones que se puedan realizar en eventos oportunos según las actividades del programa de trabajo. El coordinador de Proyecto coordinara con el Coordinador de Programa la incorporación de expertos adicionales si lo ameritan las tareas y trabajos a realizarse. Los resultados de los trabajos realizados, serán sometidos a consideración y revisión por los expertos de los Estados en forma de documento final de consolidación para su análisis, revisión y aprobación y presentación al CRPP del GREPECAS por el Coordinador del Programa.		

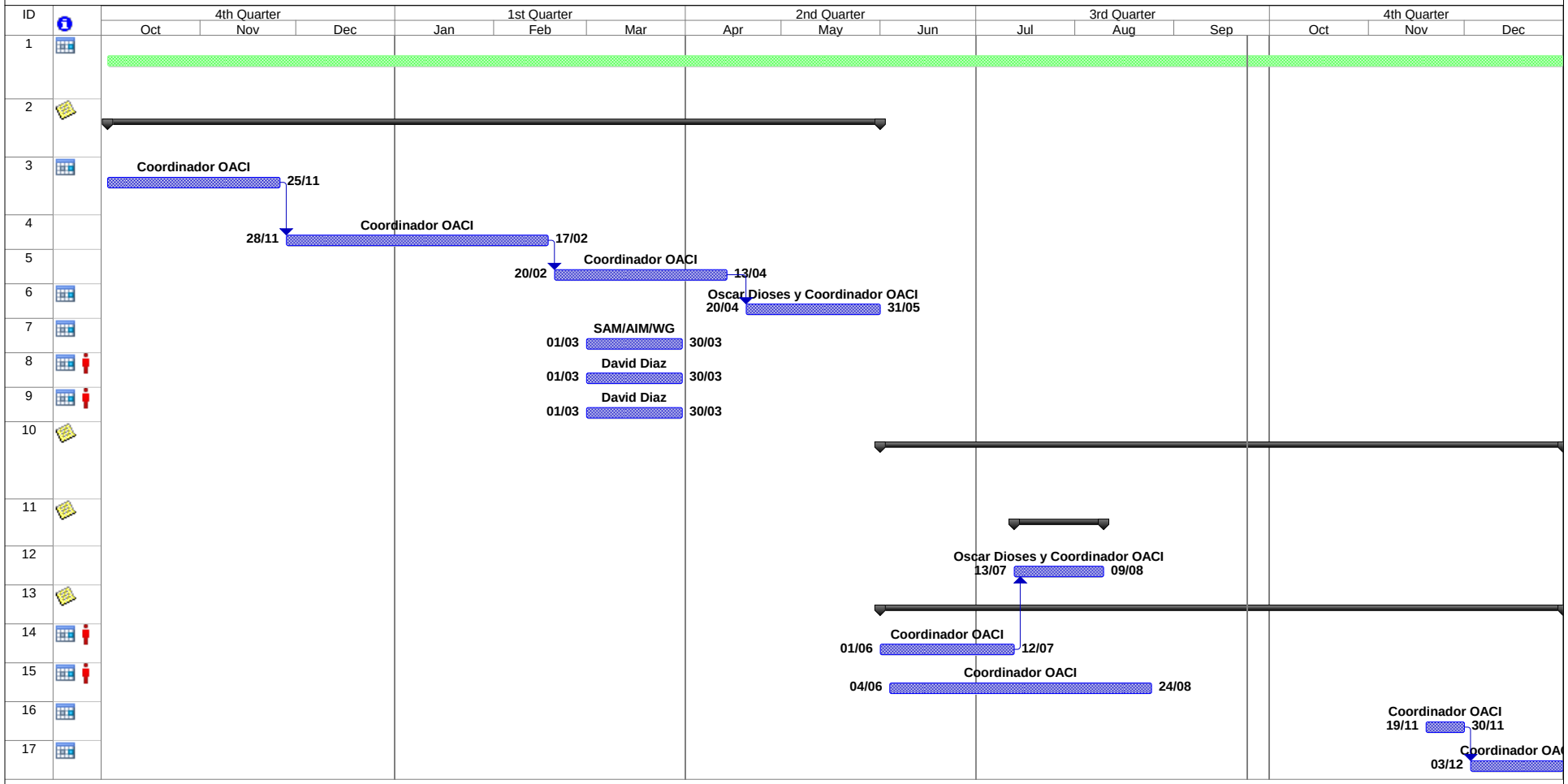
Justificación	El sistema de gestión de calidad en los servicios AIM debe proporcionar a los usuarios la garantía y confianza necesaria de que la Información/Datos aeronáuticos distribuidos satisfacen los requisitos de calidad en cuanto a su exactitud, resolución e integridad. Es necesaria una estrecha relación con otros proyectos con el fin de recolectar los requisitos operacionales demandados por las aplicaciones mencionadas y sus respectivas fechas tentativas de implantación.				
Proyectos relacionados	Se relaciona con los Proyectos G1 “Desarrollos para el suministro de datos sobre el terreno y los obstáculos ETOD” y G2 “ Gestión de Información/datos Aeronáuticos”				
Entregables del Proyecto	**Relación con el Plan Regional basado en performance (PFF)**	**Responsable**	**Estado de Implantación***	**Fecha entrega**	**Comentarios**
Preparar encuestas para establecer niveles de cumplimiento e implantación del QMS-AIM basados en las guías OACI	PFF: SAM AIM/01	Coordinador OACI		25/11/11	Completada en fecha.
Circular las encuestas a los Estados/	PFF: SAM AIM/01	Coordinador OACI		17/02/12	Completada en fecha.
Recopilar y tabular la información de los Estados/	PFF: SAM AIM/01	Coordinador OACI		13/04/12	Completada el 30/03/12.
Descripción de pasos para implantar el QMS	PFF: SAM AIM/01	SAM/AIM/WG		30/03/12	Completada en fecha.
Cuestionario de auto evaluación QMS.	PFF: SAM AIM/01	David Diaz Perú		30/03/12	Completada en fecha.

Planilla con Resultado de evaluación QMS	PFF: SAM AIM/01	David Diaz Perú		30/03/12	Completada en fecha.
Generar Informe de Implantación	PFF: SAM AIM/01	Coordinador OACI Oscar Dioses Perú		31/05/12	Se completará en fecha
Plan de Acción QMS	PFF: SAM AIM/01	Oscar Dioses Perú		24/08/12	Se estima que se completará de acuerdo a cronograma. Cuando se establezca el Plan de Acción pueden variar los entregables del Proyecto.
Modelo para carta de Acuerdo entre Estados y Proveedores de Servicio para garantizar calidad de la información e intercambio de datos AIM.	PFF: SAM AIM/01	TBD		09/08/12	Fecha de inicio 04/06/12. Esta tarea tiene riesgo de retraso por no tener experto para realizarla. Se espera encontrar solución antes de fecha de inicio.
Recopilar Certificaciones y producir Informe Sobre estado de Certificaciones ISO 9001:2008 en la Región SAM	PFF: SAM AIM/01	Coordinador OACI		30/11712	Se estima completar en fecha
Recursos necesarios	Designación de expertos en la ejecución de algunos de los entregables. Mayor compromiso de los estados en apoyar a los coordinadores y expertos que están trabajando.				

**Gris* *Tarea no iniciada*
Verde *Actividad en progreso de acuerdo con el cronograma*
Amarillo *Actividad iniciada con cierto retardo pero estaría llegando a tiempo en su implantación*
Rojo *No se ha logrado la implantación de la actividad en el lapso de tiempo estimado se requiere adoptar medidas mitigatorias*

Cronograma en MS Project con las tareas, sub-tareas, entregables y responsables

EVALUACION Y DESARROLLO DEL QMS APLICADO A LA AIM DE LOS ESTADOS DE LA REGION SAM/EVALUATION AND DEVELOPMENT OF QMS APPLIED TO AIM IN THE SAM REGION



PLANIFICACIÓN AIS: PROYECTO G3

Tarea	Tareas externas	Resumen inactivo	Sólo el comienzo
División	Hito externo	Tarea manual	Sólo fin
Hito	Tarea inactiva	Sólo duración	Progreso
Resumen	Tarea inactiva	Informe de resumen manual	Fecha límite
Resumen del proyecto	Hito inactivo	Resumen manual	

APPENDIX C

CHAPTER	CONCEPTS		QUALITY MANAGEMENT SYSTEM IMPLEMENTATION FRAMEWORK	RESPONSIBLE AREA	HOW WILL I IMPLEMENT THE FRAMEWORK (Action Plan)
	DESCRIPTION	STRATEGY			
Chapter IV, Quality Management System (ISO 9001:2008). The organisation must establish, document, and maintain a quality management system and continuously improve its efficacy in accordance with this International Standard.	**General requirements (4.1)** a) documented quality policy and quality objective statements; b) a quality manual; c) documented procedures required by this International Standard, d) documents required by the organisation to ensure effective planning, operation, and control of its processes, and e) the records required by this International Standard (see 4.2.4)	In order to achieve sustainable success, top management must adopt a quality management approach. The quality management system of the organization must be based on the principles described in the framework. These principles describe the concepts that are the foundation of an effective quality management system. The organisation must develop a quality management system to ensure that: a) resources are used efficiently; b) decisions are based on objective evidence; and c) it seeks customer satisfaction, and to meet the needs and expectations of other stakeholders	**a) Focused on the external and internal customer:** understand present and future needs of external and internal customers, meet the requirements of external customers and other stakeholders	Responsible Area AIS	Determine the needs of external customer (operators, organizations using the Notam bank) internal customers (ATS, FIS/AFIS, MET control unit; internal/external providers (DGCA, Infrastructure, Standards and Procedures, aerodrome concessionaires, administrative areas, and training centres) **Value criteria:** Legality, efficacy, continuous improvement **Objective:** Have guidelines for organisational processes. Focus interest on balancing the needs of emerging stakeholders (vision) **Impact assessment:** Efficacy of the quality management system.

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			b) Leadership: leaders establish the purpose and orientation of the organisation. It is necessary to create and keep an internal environment in which people feel fully engaged with attaining the goals of the organisation. a) benefits: individuals will understand the goals and objectives of the organisation and will be driven towards them; activities are assessed, aligned, and implemented in a unified manner; and poor communication between the different levels of the organization will be minimized.	General management	Top management must provide members of the organisation with the resources (described in the operating plan), training (training programmes), and the legal framework (procedures) necessary to act responsibly in the processes of the services they provide. It must inspire, promote, and recognize the contributions of its members (establishing motivational policies) **Value criteria:** Legality, Procurement of resources for AIS processes **Objective:** Create a proactive learning-driven approach, empowering people at all levels

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			c) Participation of individuals: Individuals at all levels are the essence of an organisation and their full commitment makes it possible to use their skills for the benefit of the organization. Benefits: Individuals motivated, committed, and engaged with the organisation – Innovation and creativity upon promoting the objectives of the organisation – People are responsible for their own performance – Individuals who wish to participate and contribute to continuous improvement	General management and Head of the area	Create awareness among the members of the organisation so that: they understand the importance of their contribution to the processes they perform; they identify the limitations to their performance; who take ownership of problems and assume their responsibilities; who actively seek opportunities to enhance their competencies, knowledge, and experience; who debate openly about problems and issues. **Objective:** Integrate worker's proactive attitudes. **Value criteria:** Generate skills for creativity, innovation, participation, transparency, and teamwork. **Impact assessment:** Level of commitment of the organisation's personnel.
			d) Process-based approach: An expected result is achieved more efficiently when the activities and related resources are managed as a process. Benefits: lower costs and shorter timeframes through the	Head of AIS area	Comply with ISO 9001:2008 article 4.1, in order to: a) Define systematically the activities necessary to achieve the desired result b) Establish clear responsibilities, including accountability, for the management of key

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			efficient use of resources; improved, consistent, and predictable results; focused and prioritized opportunities for improvement		activities c) Analyse and measure the capacity of key activities d) Identify key activity interfaces within and among organizational functions e) Focus on factors such as resources, methods, and materials to improve key activities of the organization **f)** Assess risks, consequences, and impact of activities on customers, providers, and other stakeholders **Objective:** Effective quality management systems with good interactions among its processes, and which support prompt improvements. Processes respond to the needs of stakeholders **Value criteria:** Legality, efficacy, continuous improvement

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			e) Management systems approach: The identification, understanding, and management of interrelated processes as one system contribute to the effective and efficient achievement of objectives in a deficient organisation. Benefits: a) integration and alignment of processes to obtain the desired results in the best possible conditions b) capacity to focus efforts in key processes c) give confidence to stakeholders on consistency, efficacy, and efficiency of the organisation	Head of the AIS area	Structure a system to attain the objectives of the organisation in the most effective manner. Understand interdependencies of system processes. Structured approaches that harmonise and integrate processes. Improve understanding of functions and responsibilities required to achieve common objectives, and, thus, minimize barriers between crossing functions. Understand the capacities of the organisation and define resource limitations before acting. Focus and define how specific activities should operate within a system. Continuously improve the system through measurement and assessment. **Objective:** Design a quality management system under a systematic approach. **Value criteria:** Legality, efficacy, efficiency and continuous improvement

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			Continuous improvement: A permanent objective of the organisation must be the continuous improvement of its overall performance. Benefits: a) Better performance due to improved capacities of the organisation. b) Alignment of improvement activities at all levels with the strategic goals of the organisation. c) Flexibility to react quickly to opportunities.	Head of the AIS area	Apply a consistent approach in the entire organisation based on continuous improvement of the organisation's performance. Train staff on continuous improvement methods and tools–-which could be the result-based management method. Make sure continuous improvement of products, processes, and systems is the objective of each individual working in the organisation. Establish goals and measurements for continuous improvement (objectives to ensure the quality of AIS information). Accept and recognize improvements. **Objective:** Set improvement priorities based on the needs and expectations of stakeholders, and of the organisation's providers and personnel. **Value criteria:** Efficacy and continuous improvement

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			Fact-based approach for decision making; Efficient decisions are based on data and information analysis. Benefits: a) make informed decisions b) improve capacity to demonstrate the efficacy of previous decisions using factual records c) improve capacity to review, challenge, and change opinions and decisions	Head of the AIS area	Make sure data and information about internal and external AIS providers are sufficiently exact and reliable; make sure that the service manages the information available to those who need it. Analyse data and information using valid methods, such as those required to prepare an AIP. Make decisions and take action based on fact analysis, balanced out by experience and intuition. **Objective:** Ensure that decisions are effective. **Value criteria:** Efficacy and continuous improvement
			Mutually beneficial relationship with the provider: For the organization and particularly for the AIS service, providers are independent parties and a mutually beneficial relationship is the key for increasing either party's capacity to create value. Benefits: a) increase capacity to create value for both parties. b) flexibility and	Head of the AIS area	This is one of the most important principles for the AIS service since it must ensure the quality of the information it receives. To that end, it must pool experience and resources with internal and external providers, identifying and selecting key providers, keeping clear and open communications. It shall share information and future plans with providers, establishing joint activities for development and improvement. It is also important to inspire, encourage,

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			promptness in responding to the changing market or customer needs and expectations. c) cost and resource optimization.		and recognize the improvements and achievements of providers. **Objective:** Ensure that AIS information system is interoperable **Value criteria**: Efficacy and compliance with requirements
			b) Document control: Documents required for the quality management system must be controlled. Records are a special type of document and must be controlled in accordance with the requirements listed in 4.2.4. Reference: 4.2.3 of ISO 9001:2008 **Note: A DOCUMENTED PROCEDURE IS REQUIRED**	Head of the AIS area	In this regard, we should ask: What documents must I have to support the efficacy and efficiency of the organisation's processes? In other words, do current documents allow for controlling the entire supply chain of aeronautical information from the time documents are generated to their distribution to the next scheduled user? Reference 3.2.2 Annex 15. Having defined the aforementioned assumption, we must generate a documented procedure that meets all the requirements of article 4.2.3 of ISO 9001:2008. **Objective:** Generate the necessary documents to support

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					the effective and efficient operation of the organisation's processes as well as those required by ISO 9001:2008 and keep them under control. **Value criteria:** Efficacy and compliance with the requirements of ISO 9001:2008 and Annex 1
			b) Record control: Records must be established and kept as evidence that requirements are being met, and of the effective operation of the quality management system. Records must remain legible, easily identifiable, and retrievable. A documented procedure must be established to define the controls required for the identification, storage, protection, retrieval, retention time, and disposal of records. **Note: A DOCUMENTED PROCEDURE IS**	Head of the AIS area	In this regard, we should also ask: What records show compliance with the requirement? In other words, Do current records prove compliance with all of the requirements set out in Annex 15 or Doc 4444? Another question: What records show the efficacy of AIS processes? (reduction of FPLs, Notam with errors), What records show continuous improvement? Status of implementation of the corrective and preventive action specified in internal audits and/or management reviews. **Objective:** Generate the necessary records that show compliance with requirements, efficacy, and continuous improvement. **Value criteria:** efficacy and

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			REQUIRED		continuous improvement

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Chapter V Management Responsibility. Leadership, commitment and active participation of top management are essential to develop and maintain an effective and efficient quality management system to attain benefits for all stakeholders. To obtain these benefits, it is necessary to establish, maintain and increase customer satisfaction. Top management should consider actions such as: a) establish a vision, policies and strategic objectives consistent with the purpose of the organisation, b) lead by example, in order to gain the trust of the personnel, c) communicate the vision of the organisation as well as the values concerning quality and the quality management system, d) participate in improvement projects in the search for new methods,	Management Responsibility. Top management must provide evidence of its commitment with the development and implementation of the quality management system, as well as with the continuous improvement of its efficacy by: **a)** communicating to the organisation the importance of meeting customer as well as legal and regulatory requirements, **b)** establishing the quality policy, **c)** ensuring that quality objectives are set, **d)** conducting management reviews, and **e)** making sure resources are available (5.1)	As a supplement to phased or gradual continuous improvement, top management must also consider radical changes to process as a way to upgrade the organisation's performance. During such changes, management should take appropriate measures to ensure that resources and communications are in place to maintain the quality management system functions. Top management should identify the organisation's production processes, since these are directly related to the organisation's success. Top management should also identify those supporting processes that affect the efficacy and efficiency of production processes	**a) Management commitment:** Top management defines and establishes the organisation's quality and safety policies and objectives, making sure it has the necessary elements to improve efficacy, efficiency and reduce the risks of processes, and it undertakes to: (1) Enforce, maintain and improve the quality and safety policy to meet the expectations of customers and stakeholders, leading and obtaining the commitment of its employees. (2) Ensure that procedures and work instructions are carried out consistently and in compliance with customer requirements and the established legal and regulatory requirements; that problems are identified and resolved; and that	General manager	**a)** Ensure that the sequence and interaction of AIS processes are designed to effectively and efficiently achieve the desired results. What are the desired results? **b**) Ensure that inputs, activities, and outputs of AIS processes are be clearly defined and controlled. **c)** Follow up inputs and outputs to ensure individual processes are interrelated and operate effectively and efficiently, **d)** Identify and manage risks, and take advantage of opportunities for improving performance, **e)** Conduct the data analysis to facilitate continuous improvement of processes, **f)** Identify the owners of each process and give them full responsibility and authority, **g)** Manage each process to reach its objectives, **h)** Needs and expectations of stakeholders. **Objective:** Make sure that all processes operate as an effective and efficient network. **Value criteria:** efficacy and continuous improvement

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solutions and products, e) obtain direct feedback on the efficacy and efficiency of the quality management system, identify production processes that contribute value to the organisation, f) identify supporting processes that affect the efficacy and efficiency of production processes, g) create an environment that promotes active participation and personal development, and h) provide the structure and resources needed to support the strategic plans of the organisation.		of the needs and expectations of stakeholders. Management should ensure that all processes operate as an effective and efficient network. Management should analyse and optimise process interaction, including both production and supporting processes.	the organisation reviews and continuously improves its procedures and work instructions. (3) Ensure that problems and hazards are identified and resolved by reviewing and continuously improving the documents of the documentary structure. (4) Provide the necessary resources for an effective and efficient compliance with the processes that contribute and maintain value. **Note: MUST BE CONSIDERED IN THE QUALITY MANUAL**		

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			b) Focus on the customer and the needs of other stakeholders. The success of the organisation depends on understanding and meeting current and future needs and expectations of current and future customers and potential end users, and understanding and considering those of other stakeholders. **Note: MUST BE CONSIDERED IN THE QUALITY MANUAL**	General manager	**In order to meet the needs and expectations of all stakeholders,** the organisation shall: **a)** Identify its stakeholders and give a consistent response to their needs and expectations, and translate the identified needs and expectations into requirements, **b)** Communicate the requirements to all the service, focusing on process improvement to make sure value is created for the identified stakeholders. **In order to meet customer and end user needs and expectations,** management must: **a)** Understand the needs and expectations of its customers, including potential customers, **b)** Comply with product characteristics established in Annex 15 for customers and end users,

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			c) Quality policy: Top management shall use the quality policy as a means to lead the organisation towards performance improvement. The organisation's quality policy shall be assigned equal importance as, and be consistent with, other overall policies and strategies of the organisation **Note: MUST BE CONSIDERED IN THE QUALITY MANUAL AND BE PUBLISHED IN THE ORGANISATION**	**General manager**	The quality policy must: **a)** Be consistent with top management's vision and strategy for the organisation's future. **b)** Permit the understanding and pursuit of quality objectives through the organisation, demonstrate top management's commitment to quality, and provide sufficient resources to achieve the objectives. **c)** Help promote a commitment to quality at all levels of the organisation, with a clear leadership from top management. **d)** Apply continuous improvement to the satisfaction of needs and expectations of customers and other stakeholders, and allow for an effective formulation and efficient communicate. **Objective:** Establish guidelines for designing a good quality policy.

CHAPTER	CONCEPTS		QUALITY MANAGEMENT SYSTEM IMPLEMENTATION FRAMEWORK	RESPONSIBLE AREA	HOW WILL I IMPLEMENT THE FRAMEWORK (Action Plan)
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			D) Planning quality objectives: The strategic planning and quality policy of the organisation provides a frame of reference for the establishment of quality objectives. Top management shall establish these objectives to improve the performance of the organisation. Objectives shall be measurable to facilitate an effective and efficient management review.	**General manager**	In setting the objectives, the organisation must consider: **a)** Current and future needs of the organisation and those considered in the ATM operational concept, **b)** Significant findings of management reviews, **c)** Current performance of products and processes, levels of satisfaction of stakeholders, the results of self-assessments, comparative studies (benchmarking) **d)** Opportunities for improvement and resources needed to meet the objectives.

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			E) Planning of the quality management system: The head of the AIS area shall assume the responsibility for planning the quality of its service. This planning shall focus on the definition of the processes needed to effectively and efficiently meet the quality objectives and requirements established in accordance with the organisation's strategy. Input data for effective and efficient planning include the organisations' strategies, defined objectives, defined needs and expectations of customers and other stakeholders, the assessment of legal and regulatory requirements, the assessment of legal and regulatory requirements, the assessment of product performance data,	**Head of the AIS area**	The results of AIS service quality planning shall define: **a)** The processes for generating the product and support needed in terms of the skills and knowledge required for the service, **b**) The responsibility and authority for the implementation of process improvement plans, **c)** The resources needed, such as financial resources and infrastructure, **d)** Indicators to assess service performance improvement, **e)** Improvement requirements, including methods and tools. **f)** Documentation requirements, including records.

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			assessment of process performance data, lessons learned from previous experiences, opportunities for improvement, and data related to risk assessment and mitigation.		
			F) Responsibility, authority and communication: The head of the AIS area shall define and then communicate the responsibility and authority in order to implement and maintain an effective and efficient quality management system.	**Head of the AIS area**	Many public organizations have a Functions Manual and internal work regulations, which, in addition to the responsibilities established in the procedures, permit full compliance with ISO 90001:2008

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			The personnel of the organisation must be assigned the responsibility and authority that will enable them to contribute to the achievement of quality objectives, and their participation, motivation and commitment must be established.				
			G) Management representative: Top management shall appoint and confer authority upon a management representative to manage, follow up, assess, and coordinate the quality management system. The purpose of this appointment is to increase the efficacy and efficiency of the operation and of the improvement of the quality management system. The representative shall respond to top	**General manager**			

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			management and shall communicate with customers and other stakeholders on matters related to the quality management system. **Note: DESIRABLE, IN THE QUALITY MANUAL**				
			H) Internal communication: The organisation's top management shall define and implement an effective and efficient process to communicate the quality policy, the quality requirements, the quality objectives, and the achievements. The provision of this information can help improve AIS service performance, and directly commits people to the achievement of	**General manager**	**a)** Communication conducted by management in the working areas, team informative meetings and other meetings, *e.g.*, those to acknowledge achievements, **b)** Newsletters, newspapers, and internal journals, **c)** Audio-visual and electronic means, such as email or websites, and surveys to the members of the AIS service and suggestion schemes. **Objective:** Ensure communication between top management and the members of the AIS service **Value criteria:** Proactive		

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			quality objectives. Management should actively promote feedback and communication of AIS personnel to engage their participation. **Note: "WHAT" AND "HOW" IN THE QUALITY MANUAL**		communication
			I) Management review: Top management shall develop the management review activity beyond the verification of efficacy and efficiency of the quality management system, turning it into a process that covers the entire organisation and that also assesses the efficiency of the system. Through its leadership, top management should encourage the exchange of new ideas through open discussions and	**General manager**	In order to bring value to the organisation from the management review, top management shall control the performance of the production and support processes through systematic reviews based on quality management principles. The frequency of the review shall be determined based on the needs of the organisation. Input data for the review process shall provide results beyond the efficacy and efficiency of the quality system. The results of the reviews shall provide data that can be used to plan the improvement of the organisation's performance.

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			input assessment during management reviews. Review inputs and outputs are specified in articles 5.6.2 and 5.6.3 **NOTE: IT IS PREFERABLE TO HAVE A PROCEDURE.**		AIS is a service that operates on the basis of the information provided by its internal and external providers; quality of information is an AIM requirement. The entire organisation must be aimed at the implementation of systems that ensure the quality of data **Objective:** Structure a decision-making body in the organisation for continuous improvement. **Value criteria:** Continuous improvement.

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Chapter VI Resource management. Top management must ensure that the essential resources both for strategy implementation and the achievement of the organisation's objectives are identified and available. This shall include resources for the operation and improvement of the quality management system, as well as for customer and other stakeholder satisfaction. Resources may be individuals, infrastructure, workplaces, information, providers and business partners, natural and financial resources.	Human resources (6.2). The personnel performing work that affects the quality of the product must be qualified based on appropriate education, training, skills, and experience.	The chief of the AIS service must improve both the efficacy and efficiency of the organisation, including the quality management system, through participation and support from individuals. To assist in the achievement of its performance improvement objectives, the organisation must promote participation and development of its personnel.	**Awareness and training** The planning of education and training requirements must take into account the changes resulting from the nature of AIS service processes, personnel development stages, and organisational culture. The objective is to provide personnel with knowledge and skills that, along with experience, will improve their competence. Education and training must emphasise the importance of meeting the requirements and the needs and expectations of customers and other stakeholders. It shall also include awareness of the consequences that failure to meet the requirements has on the organisation and its personnel	**Head of the AIS area**	In order to support the achievement of AIS service objectives and the development of its personnel, education and training planning shall consider: a) Personnel experience. b) Tacit and explicit knowledge. c) Leadership and management skills. d) Planning and improvement tools. e) The establishment of teams. f) Problem solving. g) Communication skills. h) Culture and social behaviour. i) Knowledge of the needs and expectations of customers and other stakeholders. j) Creativity and innovation.

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			NOTE: IT IS PREFERABLE TO HAVE A PROCEDURE.				

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	Infrastructure (6.3). The organisation must determine, provide and maintain the infrastructure required to achieve conformity with product requirements. Infrastructure includes, where applicable: a) buildings, workspace and associated services, b) Process equipment (both hardware and software), and c) Support services (such as transportation or communication).	The head of the AIS service shall define the infrastructure required for the generation of AIS products, taking into account the needs and expectations of stakeholders. Infrastructure includes resources such as premises, working space, tools y equipments, support services, information and communication technology, and transportation facilities.	**Infrastructure definition process.** The process by which the required infrastructure is defined in order to achieve effective and efficient product completion. It shall include the following: a) provide an infrastructure in terms of objectives, function, performance, availability, cost, safety, protection and renewal; b) develop and implement maintenance methods to ensure that the infrastructure continues meeting the organisation's needs; these methods shall consider maintenance kind and frequency, and verification of the operation of each infrastructure element, based on its criticality and application; c) assess the infrastructure against needs and expectations of all stakeholders; d) consider environmental	**Head of the AIS area**	Maintenance plans include equipments of interconnected processes, such as communication, IT.

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			aspects associated with the infrastructure, such as conservation, pollution, wastes, and recycling. **NOTE: IT IS PREFERABLE TO HAVE PROCEDURES ESTABLISHING "HOW" AND "WHEN" MAINTENANCE IS CARRIED OUT**				

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Chapter VII Product completion (7). The organisation must plan and develop the processes required for product completion. Planning of product completion must be consistent with the requirements of the other processes of the quality management system (see 4.1). During product completion planning, the organisation must determine, when appropriate, the following: a) Quality objectives and requirements for the product, b) The need to establish processes, documents, and to provide specific resources for the product, c) Activities required for verification, validation,	Planning product completion (7.1). The organisation must plan and develop the necessary processes for product completion. The planning of product completion must be consistent with the requirements of the other processes of the quality management system (see 4.1). During product completion planning, the organisation must determine the following, when appropriate:(see 7.1)	In order to plan the AIS service, we must have a clear understanding of the requirements established in Annex 15. The process-based approach ensures that process inputs are defined and recorded to serve as a basis for the formulation of requirements, which may be used for verification and validation of results. Inputs may be internal or external to the AIS service.	**Inputs and outputs and process review** Compliance with input requirements may imply consultation with internal and external parties. Inputs derived from activities not yet fully assessed should be subject to evaluation through subsequent review, verification and validation. The AIS service must identify significant or critical features of the products and processes in order to develop an effective and efficient plan for controlling and following up process activities. Process results that have been verified against	**Head of the AIS area**	The AIS service shall carry out regular reviews on process performance to ensure that the process is consistent with the operating plan. Some examples of elements to be considered in this review: a) Reliability and repeatability of the process. b) Identification and prevention of potential non-conformities. c) Consistency of inputs and results with planned objectives, the potential for improvement, and unresolved matters.		

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follow-up, inspection, trial / test specified for the product, as well as product acceptance criteria, d) Records needed to demonstrate that the completion processes and the resulting product meet the requirements (see 4.2.4). The result of this planning must be properly submitted for the organisation's operational methodology.			process input requirements, including acceptance criteria, shall consider the needs and expectations of the customer and other stakeholders. For verification purposes, the results shall be recorded and assessed against input requirements and acceptance criteria. This assessment must identify corrective action, preventive action, or potential improvements required for process efficacy and efficiency. The product verification can be carried out during the process in order to identify variations.				

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	Customer-related processes (7.2). Determining product-related requirements (see 7.2.1)	The organisation must determine: a) the requirements specified by the customer, including requirements for the delivery and subsequent activities and, b) the requirements not established by the customer but necessary for the specified or foreseen use, when known, c) legal and regulatory requirements related to the product, and d) any additional requirement defined by the organisation.	The AIS service determines the requirements of its product through the application of Annex 15, Annex 4, and local regulations established by the aeronautical authority.	**Head of the AIS area**			

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	Review of product-related requirements (see 7.2.2)	The organisation must review product-related requirements. This review must be carried out before the organisation is committed to providing a product to the customer (for example, sending offers, acceptance of contracts or orders, acceptance of changes to contracts or orders) and must ensure that a) product requirements are defined, b) differences between contract or order requirements and those previously established are resolved, and c) the organisation can meet the defined requirements.	The AIS service must have records proving compliance with the requirements defined by the customer along with additional requirements determined by the organisation, before acceptance, that they can be met and that they are coordinated with all stakeholders.	**Head of the AIS area**	When product and/or service requirements are modified, the organisation must ensure that the documentation is modified and that the personnel are aware of the modified requirements.

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	Communication with the customer (see 7.2.3)	The organisation must determine and implement effective provisions for communicating with customers related to a) product information, b) queries, contracts or orders, including modifications, and c) customer feedback, including customer complaints.	The AIS service must ensure that the organisation has defined mutually accepted processes for an effective and efficient communication with customers and other stakeholders. The organisation must implement and maintain such processes to ensure proper understanding of the needs and expectations of stakeholders, and to facilitate their translation into organisational requirements. These processes shall include the identification and review of relevant information and should actively involve the customer and other stakeholders.	**Head of the AIS area**	The organisation must establish the means of communication it will use to communicate with customers. For example: For service information: the web to inform current and future customers about the services it provides. For queries, new requirements, and modifications: documents, electronic means, fixed telephony, cell phones and fax. For customer feedback: satisfaction surveys and processing of customer complaints.		

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	Procurement (7.4). 7.4.1 Procurement process	The organisation must ensure that the purchased product meets the specified procurement requirements. The type and scope of control applied to the provider and the purchased product must depend on the effect of the purchased product on subsequent product completion or on the final product. The organisation must assess and select providers based on their capacity to supply products in accordance with the organisation requirements. Selection, assessment and re-assessment criteria must be established. Records must be kept of assessment results and any other necessary action derived from them.	The head of the AIS service must ensure that effective and efficient procurement processes are defined and implemented for the assessment and control of purchased products, in order to meet the needs and requirements of the organisation, as well as those of stakeholders. The head of the AIS area must establish effective and efficient processes to identify potential sources of purchased materials, to develop existing providers or business partners, and to assess their capacity to provide the required products, in order to ensure the efficacy and efficiency of all procurement processes.	**Head of the AIS area**	Is the information received by AIS for dissemination coming from internal and external providers? Do we have a process to assess and control the information received? Do we have a process defining the type and scope of the provider? Example of data providers: mapping office, DGAC, geographic institutes, originators of NOTAM information.

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	7.4.2 Procurement information	Procurement information must describe the product to be purchased, including, where appropriate: a) requirements for the approval of the product, procedures, processes and equipments, b) personnel qualification requirements, and c) quality management system requirements. The organisation must ensure the adequacy of the specified procurement	To ensure effective and efficient performance of the organisation, the head of the AIS area must ensure that the procurement processes consider the following activities: a) Timely, effective and precise identification of the needs and specifications of the product to be purchased b) Needs and criteria of the organisation for the verification of purchased products. c) Identification and traceability of the product, preservation of	**Head of the AIS area**	Have we sent our providers information about our requirements (data)?		

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		requirements before communicating them to the provider.	the product, documentation, including records, control of purchased products deviating from requirements, access to provider facilities. d) History of delivery, installation, and application of the product, development of the provider. e) Identification and mitigation of risks associated to the purchased product.		
	7.4.3 Verification of the purchased products	The organisation must establish and implement inspection or other activities necessary to ensure that the purchased	In order to ensure the effective and efficient performance of the organisation, the head of the AIS area must ensure that verification processes meet the	**Head of the AIS area**	Quite apart from the processes used by the AIS service to verify the products it purchases, the question is: What data-related processes does the AIS service have to verify the data received?

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		product meets the specified procurement requirements. When the organisation or its customer want to conduct the verification at the provider's facilities, the organisation must establish in the procurement information the provisions for the intended verification and the method for product release.	requirements, especially data requirements, since the requirement is the quality of the information.				

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	7.5.2 Validation of the production processes and provision of services	The organisation must validate those production and service provision processes where the resulting products cannot be verified by subsequent follow-up or measurement activities. This includes any process in which deficiencies become apparent only after the product is in use or the service has been provided. The validation must demonstrate the capacity of such processes to achieve the planned results. The organisation must establish provisions for these processes, including, if applicable: a) the criteria defined for process review and approval, b) equipment approval and personnel qualification, c) the use of specific	**Note: THE "WHAT" AND "HOW" IN THE QUALITY MANUAL**	**Head of the AIS area**	AIS services can be verified by follow-up activities or subsequent measurements, deficiencies or non-conformities, if any, appear only after the product is in use or the service has been provided. Therefore, the AIS service must validate the capacity of processes to achieve the planned results, using the following tools: a) The identified deficiencies or non-conformities, corrective and preventive actions and defences implemented are controlled through the corresponding records; b) Procedures or work instructions have been validated, confirmed for the required operations, demonstrating efficacy, compliance with international and local regulations, as well as with quality and safety standards established by the organisation. c) Audits; d) Risk control and mitigation

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		methods and procedures, d) recording requirements, and e) re-validation.					

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	7.5.3 Identification and traceability	When appropriate, the organisation must identify the product by suitable means, throughout the product completion process. The organisation must identify the status of the product with respect to follow-up and measurement requirements. Where traceability is a requirement, the organisation must control and record the unique identification of the product.	The Head of the AIS area must establish an identification and traceability process that goes beyond the requirements in order to collect data that can be used for improvement. The need for identification and traceability may be derived from the status of the product, including its component. The status and capacity of the processes. Requirements in Annex 15 and Annex 4. Mitigation of identified risks.	**Head of the AIS area**	The AIS establishes and applies the identification and traceability of the product or service, through control processes performed by the heads or shift supervisors of AIS organic units, keeping records of main and support activities, as required. **Note: THE "WHAT" AND "HOW" IN THE QUALITY MANUAL**

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	7.5.4 Property of the customer	The organisation must take care of the goods of the customer while they are under the control of the organisation or are being used by it. The organisation must identify, verify, protect and safeguard customer goods that have been supplied for use or incorporation into the product. Any customer good that is lost, damaged, or otherwise considered unsuitable for use must be recorded and reported to the customer.					
	7.5.5 Preservation of the product	The organisation must preserve the conformity of the product during the development of the internal process and delivery to its foreseen destination. This preservation must include identification, handling, packaging, storage and protection. Preservation must also apply to product components.			The AIS preserves the conformity of products or services, in accordance with customer requirements, during the development of internal processes, by controlling the activities and reporting occurrences affecting service operations, for the purpose of decision making. **Note: THE “WHAT” AND**		

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					"HOW" IN THE QUALITY MANUAL
Chapter VIII Measurement, analysis and improvement. The organisation must plan and implement the follow-up, measurement, analysis and improvement processes needed to: a) demonstrate product conformity, b) ensure quality management system conformity, and c) continuously improve the efficacy of the quality management system. This must include the identification of applicable methods, including statistical techniques and the scope of their use.	8.2.1 Customer satisfaction	As one of the measures of quality management system performance, the organisation must follow-up the information on the perception of customers regarding the fulfilment of their requirements by the organisation. The methods for obtaining and using such information must be determined.	Measurement data is important for fact-based decision-making. AIS shall ensure effective and efficient measurement, collection and validation of data to ensure service performance and stakeholder satisfaction. This must include the revision of the validity and purpose of measurements and the expected use of data to make sure they will add value to the service. The following are examples of the measurement of the organisation's process performance: Measurement and	**Head of the AIS area**	Follow-up and measurement of customer satisfaction are based on the revision of customer-related information. The collection of such information can be either active or passive. Management must recognize that there are many sources of information on customers, and shall establish effective and efficient processes for collecting, analysing, and using this information to improve the organisation's performance. The AIS must identify available internal or external sources of information on customers, both written and oral. The following are examples of information on customers: Customer and user surveys, Feedback on all aspects of the product, customer

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			assessment of products, process capacity, achievement of project objectives, and customer and stakeholder satisfaction. The AIS must do a continuous follow-up of its actions to improve performance and record their implementation, since this could provide data for future improvements. The results of the analysis of data on improvement activities must be one of the inputs for the management review in order to provide information to improve the organisation's performance.		requirements, and data on service provision. The head of the AIS area must use the measurement of customer satisfaction as a vital tool. The process used by the organisation to request, measure, and follow-up feedback on customer satisfaction must provide information on a continuous basis. This process must consider conformity with requirements, and compliance with customer needs and expectations. The AIS must establish and use sources of information on customer satisfaction and shall cooperate with customers to anticipate future needs. The AIS must plan and establish processes to effectively and efficiently listen to "the voice of the customer". Process planning must include the definition and implementation of methods for collecting data, including sources of information, frequency of collection, and the revision of data analysis.

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	8.2.3 Process follow-up and measurement	The organisation must apply proper methods for follow-up, and when applicable, measurement of the quality management system. These methods must demonstrate the process capacity to achieve the planned	The organisation must identify measurement methods and measure process performance. The organisation must incorporate these measurements into the processes and use them for process management.	**Head of the AIS area**	Process performance measurements must cover stakeholder needs and expectations in a balanced manner. Some examples are given below: • Capacity • Performance • Efficacy and efficiency of the individuals in the organisation. • Use of technologies.		

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		results. When planned results are not achieved, corrections and corrective action must be implemented as appropriate, to ensure product conformity.	Measurements must be used for managing daily operations, for assessing processes that may be subject to continuous or phased improvement, as well as for significant improvement projects, in accordance with the organisation's vision and strategic objectives. **Note: A DOCUMENTED PROCEDURE IS REQUIRED.**		

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	8.5 Improvement 8.5.1 Continuous improvement	The organisation must continuously improve the efficacy of the quality management system by using the quality policy, the quality objectives, the results of audits, data analysis, corrective and preventive action, and management review.	The AIS must endeavour to continuously improve the efficacy and efficiency of the processes of the organisation rather than waiting for a problem to reveal opportunities for improvement. Improvements may range from phased activities to long-term strategic improvement projects. The AIS must have a process to identify and manage improvement activities. These improvements can result in changes to the process or product and even to the quality management system or the service.	**Head of the AIS area**			
	8.5.2 Corrective action	The organisation must take action to eliminate the cause of non-conformities in order to prevent them from occurring again. Corrective action must be commensurate to the effects of the non-	The AIS must ensure that corrective action is used as a tool for improvement. Planning of the corrective action must include the assessment of the importance of the problems in terms of the	**Head of the AIS area**	During follow-up of corrective action, the AIS must identify sources of information and collect information to define the corrective action required. The corrective action so defined must focus on eliminating the cause of non-conformities in order to prevent them from		

CHAPTER	CONCEPTS		QUALITY MANAGEMENT SYSTEM IMPLEMENTATION FRAMEWORK	RESPONSIBLE AREA	HOW WILL I IMPLEMENT THE FRAMEWORK (Action Plan)
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		conformities found. A documented procedure must be established to define requirements concerning: a) the revision of non-conformities (including customer complaints), b) the identification of the causes of non-conformities.	potential impact on aspects such as operating costs, non-conformity costs, product performance, safety in the operations, safety and satisfaction of customers and other stakeholders. Personnel from the appropriate areas must participate in the corrective action process. Likewise, emphasis must be placed on process efficacy and efficiency when taking action, and actions must be followed up to ensure achievement of the desired goals. Consideration must be given to the inclusion of corrective actions in the management review. **Note: A DOCUMENTED PROCEDURE IS REQUIRED.**		occurring again. The following are examples of sources of information to be considered in the corrective actions: • Customer complaints • Non-conformity reports • Internal audit reports • The results of management reviews • The results of data analyses • The results of satisfaction measurements • Relevant records of the quality management system • Organisation's personnel • Process measurements • The results of self-assessments

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	8.5.3 Preventive Action	The organisation must determine actions to eliminate the causes of potential non-conformities to prevent them from occurring. Preventive actions must be commensurate to the effects of potential problems. A documented procedure must be established to determine the requirements for: a) determining potential non-conformities and their causes, b) assessing the need to act to prevent the occurrence of non-conformities, c) determining and implementing the required action, d) recording the results of action taken, and e) reviewing the preventive action	The AIS must plan for the mitigation of effects of service loss, in order to maintain process and product performance. Loss prevention must be applied when planning product generation and support processes, activities, and products, to ensure stakeholder satisfaction. For loss prevention planning to be effective and efficient, it should be systematic. It must be based on data coming from appropriate methods, including the assessment of historical trends, and critical aspects of the performance of the organisation and its products, to generate quantitative data. **Note: A DOCUMENTED PROCEDURE IS REQUIRED.**	**Head of the AIS area**	Data can be generated from the use of risk analysis tools, such as failure mode and effects analysis; the review of customer needs and expectations; the results of management review; the results of data analysis; satisfaction measurements; process measurement; systems consolidating sources of information of stakeholders; significant records of the quality management system; lessons learned from past experience; self-assessment results; processes providing early approach warning of out-of-control operating conditions. These data will provide information allowing for effective and efficient loss prevention planning and setting of appropriate priorities for each process and product in order to meet stakeholder needs and expectations. The results of efficacy and efficiency assessment of loss prevention planning must also be included in the management review, and must be used as input for modifying plans and

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		taken.			for improvement processes.

APPENDIX D

QMS CORRECTIVE AND PREVENTIVE ACTION PROCEDURE

Revision 00

2012

DRAFTING OF THE DOCUMENT	REVISION OF THE DOCUMENT	APPROVED
		General Manager

SUMMARY

MATRIX FOR CONTROLLING THE REVISION STATUS

CODE: R01-OyM.CD-05 **REVISION: 03/04-03-2011**

REVISION	DATE OF MODIFICATION	REMARKS
00		

1. OBJECTIVE

1.1 Establish guidelines for the implementation of the corrective and preventive actions of the quality management system (QMS) in order to eliminate:

- the causes of non-conformities to prevent them from occurring again; and
- the causes of potential non-conformities *to prevent them from occurring;*

1.2 Assessment of the efficacy of corrective and preventive actions

2. SCOPE

2.1 This procedure applies to all organic units that provide air navigation and airport services at national level (name of the organisation)

3. RESPONSIBILITIES

3.1 The Organisation and Methods Area, in coordination with the ATS Quality Management Area, is responsible for the dissemination, implementation, and compliance with this procedure;

3.2 The central manager of Air Navigation and the central manager of Airports are responsible for promoting follow-up audits to verify the efficacy of corrective or preventive actions;

3.3 The establishment and maintenance of this procedure is the responsibility of the ATS Quality Management area, in coordination with the areas and organic units that provide air navigation and airport services;

3.4 The heads of area and employees of air navigation and airport services at national level are responsible for:

a) Identifying actual or potential non-conformities in the processes of their competence or in the quality management system, taking immediate corrective action, or requesting the formulation of actions and reporting them in the established service sheet;

b) Identifying the root cause of actual or potential non-conformities, and planning the corrective or preventive actions to be implemented;

c) Implementing corrective and/or preventive actions within their area of competence, or submitting them to their immediate superior if they fall beyond their scope; and

d) Documenting corrective or preventive actions in Record R03-AGC.ACP-01.

3.5 The head of each organic unit of Air Navigation and Airport Services or whoever acts on his/her behalf, will validate and record the efficacy of the identified non-conformities. He/she will also define and follow up the corrective and/or preventive actions within the scope of his/her competence, reporting the results obtained to his/her immediate superior.

The head of each Air Navigation and Airport Service area will complete the follow-up records R03-AGC.ACP-02 - R03-AGC.ACP-03 and will send copies of the records of corrective, preventive, and follow-up actions to the management representative and the internal auditor of the quality management system for management review.

3.6 The head of each organic unit will plan and organise the availability of the resources necessary for the actions to be executed.

3.7 The internal auditor of the quality management system is responsible for verifying at national level the degree of timely compliance with corrective and/or preventive actions.

4. LEGAL AND ADMINISTRATIVE BASIS

4.1 Strategic plan of (name of the organisation) 2009-2013

4.2 “Procedure for drafting quality management system documents”, latest version;

4.3 “Procedure for the control of QMS documents”, latest version

4.4 Doc 8126 – Aeronautical Information Services Manual

5. REQUIREMENTS

5.1 ISO 9001:2008 (Clause 8.5.2 and 8.5.3)

5.2 ISO 9000:2005 (Clause 2.7.2 Types of documents used in quality management systems)

6. DESCRIPTION OF ACTIVITIES

6.1 Identification and recording of non-conformities

Non-conformities (non-compliance with requirements) occur in any of the activities of the processes of air navigation and airport services or in the quality management system. Therefore, they need to be identified and recorded.

The origin of non-conformities may be identified through:

a) The activities of air navigation and airport service processes;
b) Customer complaints or suggestions;
c) Internal quality audits;
d) Management reviews;
e) The quality management system;
f) Service sheet reports of the organic units of air navigation services. The systematic occurrence of errors or observations in air navigation products or services constitutes a non-conformity;
g) QMS indicator trends;
h) Inoperative condition of air navigation and airport service equipment and systems.

When identifying non-conformities, the following must be considered:

a) The sub-process or organic unit where the non-conformity or observation has been identified;
b) The description of the actual or potential non-conformity;
c) Name of the person who identified the non-conformity;
d) Date on which the non-conformity is identified; and
e) Name of the person responsible for implementing corrective and/or preventive action.

6.2 Analysis of the causes of the actual or potential non-conformity

The person in charge of implementing corrective and/or preventive action will analyse, individually or with a team of the services concerned, the available documentation in order to identify the root cause of the actual or potential non-conformity.

6.3 Planning of actions

Based on the identification of the root cause of the non-conformity, two types of actions may be planned and organised:

a) Corrective action

When action is aimed at preventing actual non-conformities from occurring again.

b) Preventive action

When action is aimed at resolving potential non-conformities to prevent their occurrence.

The format used for the planning, organisation, supervision, and control of corrective or preventive action is record R03-AGC.ACP-01 (see Annex I).

6.4 Control and follow-up of corrective and/or preventive action

The head of each organic unit responsible for executing the corrective and/or preventive action or whoever acts on his/her behalf will do the control and follow-up of the actions, making notes in the "control" box to reflect the execution of actions or inserting the follow-up date in the "remarks" box (see Record R03-AGC.ACP-01).

6.5 Monitoring the efficacy of corrective and/or preventive actions

Following the date of the action plan, the head of each organic unit of air navigation or airport services responsible for executing the corrective or preventive action, or whoever acts on his/her behalf, will verify the efficacy of such action after a reasonable time of completing the action. If the proposed action was effective, record R03-AGC.ACP-01 will be completed with the closing date and signature. If the proposed action was not effective, the cause of the non-conformity will be analysed and another action will be planned in a new record, and the previous record will not be closed.

6.6 Follow-up of records of corrective and/or preventive action

The head of the organic unit of air navigation or airport services will complete follow-up records R03-AGC.ACP-02 - R03-AGC.ACP-03. Furthermore, in coordination with the ATS quality management area, he/she will send the records of the corrective and/or preventive actions to the management representative and the internal auditor of the quality management system for management review.

7. RECORDS

IDENTIFICATION	STORAGE	PROTECTION	CHRONOLOGICAL	RETENTION	DISPOSAL
R03-AGC.ACP-01 Report on corrective or preventive action.	(*name of the organic unit)*	Printed/Digital	Chronological	03 years	Eliminate
R03-AGC.ACP-02 Corrective action follow-up table	(*name of the organic unit)*	Printed/Digital	Chronological	03 years	Eliminate
R03-AGC.ACP-03 Preventive action follow-up table	(*name of the organic unit)*	Printed/Digital	Chronological	03 years	Eliminate

8. GLOSSARY

Corrective action:
Action taken to eliminate the causes of **non-conformities** in order to prevent them from happening again

Note 1. – A non-conformity may have more than one cause

Note 2. – Corrective action is taken to prevent something from happening again, while preventive action is taken to prevent it from happening

Note 3.- There is a difference between correction and corrective action.

Preventive action:
Action taken to eliminate the cause of a **potential non-conformity** to prevent its occurrence.

Note 1. – There may be more than one cause of a potential non-conformity
Note 2. – Corrective action is taken to prevent something from happening, while preventive action is taken to prevent it from happening again

Conformity:
Compliance with a requirement**.** Statement of facts, a condition identified during an audit that meets audit criteria.

Correction:
Action taken to eliminate an identified non-conformity

Note 1. A correction may be executed together with a corrective action.

Note 2. A correction may be, for example, a reprocess or a reclassification.

Efficacy:
Extent to which planned activities are executed and planned results achieved

Efficiency:
Relationship between the results achieved and the resources used

Non-conformity:
Non-compliance with, or absence of, specified requirements, which affects the effectiveness of the QMS to meet its established goals or objectives

Requirement:
Established need or expectation, generally implicit or mandatory

Records:
Records are established and maintained as evidence of compliance with the requirements and of the effective operation of the quality management system. Records must remain easily identifiable and retrievable.
Records R01 indicate compliance with the requirements; records R02 refer to efficacy; and records R03 refer to continuous improvement.

Quality management system (SGC):
Set of human and material resources coordinated through structured documents and based on the Safety Manual, aimed at ensuring conformity of processes with the recommendations of ISO 9001:2008.

Air navigation services:
This expression covers services provided to air traffic during all phases of operations (approach, aerodrome control, and en-route): air traffic management (ATM), communication, navigation, and surveillance systems (CNS), air navigation meteorological services (MET), search and rescue (SAR), and aeronautical information services (AIS).

9. ANNEXES

Annex I : Report on corrective or preventive action

Annex II : Corrective action follow-up table

Annex III : Preventive action follow-up table

ANNEX I

REPORT ON CORRECTIVE OR PREVENTIVE ACTION

Area/Unit :.....

Code: R03-AGC.ACP-01 **Revision:01/04-03-2011**

Request for action:	**Corrective**		**Preventive**		**Date of issuance:**	**Number:**

Sub-process where the problem was detected:

Name of the person requesting the format:

Origin	Complaints or suggestions		Management review		Non-conforming product or service or *observation*		Service sheet reports	
	Quality system		Audit		Other:			

Responsible for executing the action:	Date of assignment:
Area assigned:	

Description of the actual or potential problem:
Identification of the root cause of the problem:
Corrective or preventive action to be taken:
Controls for ensuring execution of the action:

Follow-up dates	**Plan**	**Actual**	**Remarks**
Date of start of Action Plan			
Date of end of Action Plan			
Verification of efficacy			

Result of the efficacy verification:	
Closing date:	_____ Name and signature

ANNEX II

CORRECTIVE ACTION FOLLOW-UP TABLE

Area/Unit :.....

Code: R03-AGC.ACP-02 **Revision:01/04-03-2011**

Action Nº	Date of issuance	Non-conformity	Corrective action	End date	Closing date

ANNEX III

PREVENTIVE ACTION FOLLOW-UP TABLE

Area/Unit :.....

Code: R03-AGC.ACP-03 **Revision: 01/04-03-2011**

Action Nº	Date of issuance	Non-conformity	Preventive action	End date	Closing date

QMS INTERNAL AUDIT

Revision 02

2011

DRAFTING OF THE DOCUMENT	REVISION OF THE DOCUMENT	APPROVED

SUMMARY

REVISION STATUS CONTROL

CODE: R01-OyM.CD-05 **REVISION: 03/04-03-2011**

REVISION	DATE OF MODIFICATION	REMARKS
00		

1. OBJECTIVE

1.1 Establish the criteria for planning and conducting, at planned intervals, the internal audits of the quality management system (QMS) to be performed by the internal auditing personnel of (name of the organisation) to assess the degree of compliance with ICAO standards and recommended practices, current national air navigation and airport legislation, customer requirements, ISO 9001: 2008 requirements, and also to identify opportunities for improving the QMS.

2. SCOPE

2.1 This procedure applies to all organic units that provide national air navigation and airport services of (name of the organisation).

3. RESPONSIBILITIES

3.1 The General Manager is responsible for:

- Approving the annual QMS internal audit plan, as well as the budget to execute the operational and investment plan of the current fiscal year;
- Informing top management on QMS status in the audited organic units;
- Requiring the execution of corrective and preventive action in the audited organic units;
- Ensuring the necessary resources are available to execute corrective and preventive actions;
- Making sure that the internal auditor of the air navigation and airport services does the follow-up of the degree of compliance with corrective and preventive actions.

3.2 The General Manager of Air Navigation is responsible for:

- Planning at least two QMS internal audits by prioritised service, in coordination with the head of the ATS quality management area, in order to ensure that all processes of the prioritised services are audited;
- Informing the organic units to be audited duly in advance;
- Approving the annual QMS internal audit plans;

- Informing the General Manager of the degree of execution of the actions derived from the QMS internal audits;
- Maintaining the QMS internal audit team of the organisation trained and up-to-date;

3.3 The heads of the audited organic units are responsible for:

- Determining the root cause of the identified non-conformities;
- Identifying possible solutions and corrective actions to eliminate root causes, as well as preventive actions to prevent them from occurring again;
- Planning the action to be taken to correct non-conformities and/or observations identified in the final internal audit report;
- Assessing the efficacy of the action taken, whether corrective or preventive, for continuous improvement.

3.4 The lead auditor of air navigation and airport services is responsible for:

- Leading the activities for the preparation and conduction of the QMS internal audits, in coordination with the internal auditors of the audit team;
- Requiring the designating QMS internal auditors, during the preparation phase, to prepare their checklists and methodology to be used in the audit process, taking into account the scope and audit criteria pre-established in the planning phase, the corrective and preventive action follow-up reports, the results of customer satisfaction surveys, the results of the action taken on non-conforming services, incidents, and hazardous events that have affected the operations of air navigation and airport services;
- Supervising and advising the designated QMS internal auditors on the conduction of internal audits to ensure their proper execution;
- Immediately reporting non-conformities, observations, and opportunities for improving the system of the audited area;
- Monitoring, together with the audit team, the assessment of effects of corrective and preventive action taken as a result of previous audits*;*
- Submitting the final report and the results of the internal quality audit to the central manager.

3.5 The designated internal auditors are responsible for:

- Developing the methodology and checklists based on the pre-established audit scope and criteria;
- Assessing the QMS of the organic units to be audited in order to obtain, analyse and record any relevant evidence to establish conformities, non-conformities, correction requirements, and opportunities for improvement;

- Identifying, together with the audited area, any possible solutions to the identified non-conformities and observations.

4. LEGAL AND ADMINISTRATIVE BASIS

LEGAL BASIS

4.1 Current civil aviation law and regulations of each country of the Region.

4.2 Directors resolutions and other legal applications that support the management, operation, and preservation of the air traffic, aeronautical telecommunication, aeronautical information, aeronautical meteorological services provided.

ADMINISTRATIVE BASIS

4.3 Strategic plan of (name of the organisation);

4.4 *Procedures for drafting quality management system documents;*

5. REQUIREMENTS

5.1 ISO 9001:2008 (Clause 8.2.2 Internal audit)

5.2 Standard 19011 (Guidelines for quality system audits)

5.3 ISO 9000:2005 (Clause 2.7.2 Types of documents in quality management systems)

6. ACTIVITIES

6.1 Drafting of the annual QMS internal audit plan

The lead auditor of air navigation and airport services must develop an annual internal quality audit and follow-up plan for the organic units of air navigation and airport services prioritised annually in accordance with record R03-AGC.AI-01. This annual internal quality audit plan must be reviewed every year, making sure that all organic units of each service are audited at regular intervals within a period of three (3) years.

6.2 Planning and preparation of the QMS internal audit

The lead auditor of air navigation and airport services will define the following:

- The audit scope and criteria;
- The audit programme, defining the areas to be audited and the competencies required from the audit team;

The lead auditor and the internal audit team shall:

- Prepare the audit, establishing checklists and the methodology to be used, based on the scope, criteria, and areas to be audited, according to the established priorities;
- Prepare the QMS internal audit plan in accordance with the established format R03-AGC.AI-02;

- Inform the areas to be audited, duly in advance, about the dates of the internal audit, indicating the objective, scope, criteria, and tentative programme of the audit.

6.3 Conduction of the QMS internal audit

6.3.1 Opening meeting

At the opening meeting, the lead auditor must brief the central manager and/or head of area or administrative chief and/or head of operations, or whoever is acting on their behalf, on the objective, scope, criteria, and proposed schedule of the audit. The specific arrangements, including personnel availability for interviews, must be discussed and agreed before starting the event.

6.3.2 QMS internal audit procedure

The methodology established in the audit preparation phase are the techniques of the audit team for collecting information on the aspects defined in the scope and the pre-established audit criteria, taking into account the conceptual framework of this procedure.

The audit team must work systematically on the basis of the established audit plan and the checklists developed.

The internal audit reports include the following:

- When the audit team identifies a fact that might be considered a deviation or a shortfall or deficiency in the regulations, it will analyse and discuss the facts with the representative of the organic unit being audited and will record it in R03-AGC.AI-03;

- Once the non-conformity has been recorded, the person responsible for the organic unit being audited, together with the internal auditor, shall define in writing the corrective or preventive actions to be applied in order to resolve each of the non-conformities identified, after conducting a root cause analysis, and shall set the dates for the follow-up audits to verify the efficacy of such planned actions.

6.3.3 QMS internal audit interviews

The audit team must take into account that, in order to obtain information on the performance of the area to be audited, it must observe and ask questions such as: who? what? why? where? when? how? show me? what if? This provides information other than the available written material and gives the audited personnel a chance to explain work and system practices. The interview will allow the audit team to assess the level of understanding of the audited area with respect to the requirements.

A managerial, supervisory, and operational approach shall be applied to the persons to be interviewed, as applicable;

The objective of the audit interview is to obtain information and not to get into arguments or confrontations.

6.3.4 Conformities, non-conformities, corrections required as a result of the internal audit

Once the conformities, non-conformities, corrections required, or potential hazards have been defined, the audit team will meet with the lead auditor to confirm and/or correct the deviations identified with the audited area.

6.3.5 Closing meeting

Before this meeting, the audit team shall:

- Reach an agreement on the conclusions of the audit;
- All deviations must have been discussed and agreed upon before the closing meeting and the audited area must have been informed of the results of the audit;
- Analyse the need for subsequent follow-up audits.

Once audit activities have been completed, a closing meeting must be held with the central manager and/or head of the area or administrative chief and/or the head of operations or whoever acts on their behalf, to:

- Thank them for their hospitality;
- Confirm the scope;
- Summarise the results;
- Make recommendations for improvement, if applicable;
- Explain confidentiality;
- Acknowledge and close the meeting.

6.4 Final report of the QMS internal audit

The final report of the QMS audit must be an objective presentation of internal audit results in accordance with record R03-AGC.AI-04. Upon completing audit activities, the lead auditor shall present a preliminary audit report to the head of the area or the head of the operations teams or whoever is acting on their behalf at airport premises. Any comment made shall be considered in the drafting of the final report of the QMS internal audit.

7. RECORDS

IDENTIFICATION	STORAGE	PROTECTION	RETRIEVAL	RETENTION	DISPOSAL
R03-AGC.AI-01 Annual QMS internal audit plan	Quality management area	Printed/digital	Chronological	3 years	Eliminate
R03-AGC.AI-02 QMS internal audit plan	Quality management area	Printed/digital	Chronological	3 years	Eliminate
R03-AGC.AI-03 Deviation report	Quality management area	Printed/digital	Chronological	3 years	Eliminate
R03-AGC.AI-04 Final report of the QMS internal audit	Quality management area	Printed/Digital	Chronological	3 years	Eliminate

8. GLOSSARY

Audit:
Systematic, independent, and documented process for obtaining audit evidence and objectively assess it to determine the extent to which audit criteria are met.

Note.- Internal audits, in some cases called **first party** audits, are conducted by, or on behalf of, the organisation for internal purposes, or may serve as the basis for the self declaration of conformity of an organisation.

External audits include what is normally called “second or third party audits”.

Second party audits are conducted by external independent organisations, such as customers or other individuals on their behalf.

Third party audits are conducted by external independent organisations. Such organisations provide **conformity certification or registration, with records such as ISO 9001 and ISO 14001:1996.**

Corrective action:
Action taken to eliminate the causes of **non-conformities** in order to prevent them from happening again

Note 1. – A non-conformity may have more than one cause

Note 2. – Corrective action is taken to prevent something from happening again, while preventive action is taken to prevent it from happening.

Note 3.- There is a difference between correction and corrective action.

Preventive action:
Action taken to eliminate the causes of potential **non-conformities** to prevent their occurrence

Note 1 – There may be more than one cause of a potential non-conformity.

Note 2 – Preventive action is taken to prevent something from happening, while corrective action is taken to prevent it from happening again.

Auditor:
A person with the competencies to conduct an audit

Lead auditor:
An auditor designated to conduct a safety and/or service quality audit

Correction:
Action taken to eliminate an identified non-conformity

Note 1.- A correction may be executed together with a corrective action

Note 2.- A correction may be, for example, a reprocess or a reclassification

Conformity:
Compliance with a requirement. Statement of facts, situation identified in the course of an audit that meets audit criteria.

Competence:
Demonstrated ability to apply knowledge and skills

Audit conclusions:
Audit results provided by the audit team after considering the audit objectives and all the audit findings.

Audit criteria:
Set of policies, procedures, or requirements used as a reference

Internal audit team:
Group of internal auditors established to conduct quality management internal audits.

Efficacy:
Extent to which planned activities are executed and planned results achieved

Efficiency:
Relationship between the results achieved and the resources used

Audit evidence:
Records, statements of facts, or any information relevant for the audit criteria that is verifiable.

Note.- Evidence may be qualitative or quantitative.

Objective evidence:
Data supporting or verifying the existence of something

Non-conformity:
Non-compliance with any requirements of the QMS standard or the corporate procedures

Observations:
Minor sporadic non-compliances or early signs of a problem for which more information is required and that have not affected QMS operation and may be easily corrected. Recommendations of improvement by the auditor

Opportunity for improvement:
Recommendations that only state that something is already being done well and that could be improved. Opportunities for improvement are treated as preventive actions.

Process:
Set of mutually related or interacting activities that transform inputs into results.

Procedure:
A specified way of conducting an activity or process

Note 1. – Procedures may or may not be documented.

Note 2.- When a procedure is documented, the term “written procedure” or “documented procedure” is frequently used. The document that contains a procedure may be called “procedure document”.

Audit programme:
Set of one or more audits planned for a given period of time and aimed at a specific purpose.

Records:
Records are established and maintained as evidence of compliance with the requirements and of the effective operation of the quality management system. Records must remain easily identifiable and retrievable.
Records **R01** indicate **compliance** with the requirements; records **R02** refer to **efficacy**; and records **R03** refer to **continuous improvement.**

8. ANNEXES

Annex I : Annual QMS internal audit plan
R03-AGC.AI-01

Annex II: QMS internal audit plan
R03-AGC.AI-02

Annex III: Deviation report
R03-AGC.AI-03

Annex IV: Final report of the QMS internal audit
R03-AGC.AI-04

ANNEX I

ANNUAL QMS INTERNAL AUDIT PLAN

CODE: R03-AGC.AI-01 **REVISION: 01/28-06-2011**

ACTIVITY TO BE AUDITED AND DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1.- DATE:												
2.- DATE:												
3.- DATE:												
4.- DATE:												

LEGEND – TYPES OF AUDITS		OBSERVATIONS
INTERNAL AUDIT	I	In accordance with the QMS implementation plan
EXTERNAL AUDIT	E	

PREPARED:	APPROVED:	UPDATED:

ANNEX II

QMS INTERNAL AUDIT PLAN

CODE: **R03-AGC.AI-02** **REVISION: 01/28-06-2011**

QMS Internal Audit Plan

INTRODUCTION

This section must contain the type(s) of audit(s) to be conducted for the audit**.**

PURPOSE

The purpose, objectives, scope, and criteria based on which the audit will be conducted.

METHODOLOGY

This section specifies the assessment techniques.

AREAS TO BE AUDITED

This section must clearly specify the area that will be audited**.**

PLANNED ACTIVITIES

This section must identify and describe the activities to be conducted and the documents that must be available for the auditor and whether the audit will include interviews with the areas to be audited.

PROGRAMME

This section must include a tentative programme for each of the planned activities.

AUDIT

This section must present the audit member.

ANNEX III

DEVIATION REPORT

CODE: R03-AGC.AI-03 **REVISION: 01/22-12-2006**

DEVIATION REPORT	
Audited area:	**N°:**
Organic unit audited:	**Date of the audit:**
Document references / ISO 9001:2008:	
Non-conformity____(NC) **Requires correction ____(RC)** **Opportunity for improvement____(ODM)** **(Description of the fact)** **Notes:**	
Severity (minor/major):	**Prepared by: (Auditor)**
Signature of the person responsible for the audited area:	**Date of reception:**

ANNEX IV

FINAL REPORT OF THE QMS INTERNAL AUDIT

CODE: R03-AGC.AI-04 **REVISION: 01/28-06-2011**

FINAL REPORT OF THE QMS INTERNAL AUDIT

INTRODUCTION
This section must identify the type of audit.

NAME OF THE AUDITOR:
Name of the lead auditor

AUDIT OF:
Example:
- QMS documentation
- Management responsibility
- Resource management
- Measurement, analysis and improvement, etc.

AUDITED PERSONNEL
Lists the names of the audited personnel

AUDIT ROUTES AND SOURCES OF EVIDENCE
This section must indicate the requirements of the audited quality management system and the documented procedures used during the audit.

ASSESSMENTS AND CONCLUSIONS
This section must describe, in general terms, the non-conformities, observations, or opportunities for improvement. This section must not only focus on problems but also highlight positive points. At the end, insert the final conclusion of the audit.

Signatures:

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Lead auditor **Internal auditor**

CONTROL OF DOCUMENTS OF THE MANAGEMENT SYSTEM OF THE AIR NAVIGATION AIS SERVICE

Revision 00

2012

PREPARED	REVIEWED	APPROVED

SUMMARY

1. OBJECTIVE

1.1 Establish the necessary activities and responsibilities for defining the following controls:

- Approval of MS documents
- Revision and updating of MS documents
- Make sure that changes to, and the revision status of, MS documents are identified
- Make sure that current versions of documents are available at the point of use
- Make sure that documents are kept legible and identifiable
- Make sure that external documents that the organisation deems necessary for the planning and operation of the quality management system are identified and their distribution is controlled
- Prevent unintended use of obsolete documents

2. SCOPE

2.1 This procedure applies to all organic units that provide AIS for national and international air navigation of (*name of the organisation*).

3. RESPONSIBILITIES

3.1 The members of AIS organic units are responsible for:

- Drafting, reviewing, and validating MS documents (procedures and work instructions) for the planning, operation, and control of their respective processes.
- Mandatory use of MS documents.

3.2 The unit in charge of the MS is responsible for:

- Drafting, reviewing, and validating the documented procedures and records required by ISO 9001.
- Participating in the drafting, revision, and validation of AIS MS documents
- Managing the life cycle of this procedure
- Reviewing and validating MS documents and sending them to higher authorities for the respective approval.
- Keeping a digital file of QMS documents and deciding their printing for use in basic and update training courses, keeping control of the virtual record “Control of the physical distribution of QMS documents” and sending a virtual copy by e-mail to the quality management area.

3.3 The management representative is responsible for:

- Managing and publishing MS documents on the intranet of (*name of the organisation)* to ensure availability of current versions of QMS documents to the users of AIS organic units.

3.4 The head of the AIS of (name of the organisation) is responsible for:

- Reviewing and validating MS documents and submitting them to superior instances for approval.
- Identifying and controlling the external documents required for the planning and operation of the QMS.

4. LEGAL AND ADMINISTRATIVE BASIS

LEGAL BASIS

4.1 ISO 9001:2008 (Clause 4.2.3 Control of Documents)

4.2 ISO 9000:2005 (Clause 2.7.2 Types of documents used in quality management systems).

4.3 Doc 8126 – Aeronautical Information Services Manual
4.4 Civil aviation law and its regulations (of the country concerned)

ADMINISTRATIVE BASIS

4.5 Strategic plan of (name of the organisation)

4.6 Management manual of the air navigation AIS service

4.7 Drafting and presentation of MS documents (PR-4.2-AGC-1).

5. DESCRIPTION OF ACTIVITIES

5.1 Description of activities in order to define controls for approval, revision, and updating, and to identify the status of revision, availability at the points of use, and distribution control.

5.2 Approval and dissemination of AIS documents

a) MS documents must be approved by top management

b) The MS document related to AIS operation, approved by top management, shall be submitted to the director general of civil aviation (DGAC).

c) Top management decides on the implementation and dissemination of approved MS documents in (*name of the organisation).*

d) The original signed physical and digital MS document will become part of the documentary files of the organisation.

e) The implementation of AIS MS documents must meet contractual, legal, and regulatory requirements, as well as the needs and expectations of customers and other stakeholders, if any.

f) The management representative will make sure that the original signed document is published on the intranet of (*name of the organisation)* through the information technology unit.

5.3 Review and update AIS MS documents as necessary, and approve them again

a) MS documents are modified and updated as a result of continuous revision, changes to activities or introduction of new ones, and/or as a result of internal MS audits.

b) Once the draft MS document (procedure or work instructions) has been prepared and updated following continuous revision of the documentation by any member of the AIS, it will be reviewed by the head of the AIS to ensure compliance with current MS procedures. The aforementioned documents are submitted for validation and corresponding approval by the immediate superior authority.

c) Any modification or change will be written in italics for quick identification; however, in case of a major modification, this will not apply.

d) Once the MS documents have been modified, the status of revision changes.

e) The new approved revision will comply with item 6.1 of this procedure.

5.4 Ensure that changes and the status of revision are identified in QMS documents

a) The revision control matrix must be published in each document posted on the intranet of (name of the organisation).

5.5 Ensure that current versions of the documents are available at the points of use

a) The original signed document must be published on the intranet of (*name of the organisation)* so that current versions may be available to organic units under this procedure.

b) For the purpose of communication, training or induction of the personnel

c) of (*name of the organisation)*, documents must be printed as uncontrolled copies

5.6 Ensure that documents are kept legible and easily identifiable

a) The documentation system established in the procedure “Drafting and presentation of QMS documents” PR-4.2-AGC-1, through its coding, permits the traceability of the established documentation.

b) QMS documents will be identified and followed up using the following matrices:

- “General matrix of MS documents Level 1”, which corresponds to the quality policy, the management manual, the plan of objectives, and the documented procedures, as required by ISO 9001.

- “General matrix of MS documents Level 2”, that corresponds to AIS procedures for national and international air navigation.

- "General matrix of documents Level 3", that, in this case, corresponds to AIS work instructions for national and international air navigation.

5.7 Make sure that external documents are identified and their distribution is controlled

a) External documents that ensure an effective planning and operation of the quality management system are identified, controlled, and distributed internally through record R01-AGC.CD-06.

5.8 Prevent unintentional use of obsolete documents and, in case they are kept for any reason, identify them appropriately

a) The current version of the AIS MS document is published on the intranet of (*name of the organisation),* making sure that obsolete documents are not used.

b) For retention reasons, the original physical AIS MS documents will be filed in the corresponding units and will be stamped as "Obsolete document".

6. RECORDS

IDENTIFICATION	STORAGE	PROTECTION	RETRIEVAL	RETENTION	DISPOSAL
R01-AGC.CD-01 General matrix of MS documents Level 1	Database	Printed/digital	Chronological	2 years	Eliminate
R01-AGC.CD-02 General matrix of MET MS documents Level 2	Database	Printed/digital	Chronological	2 years	Eliminate
R01-AGC.CD-03 General matrix of MET MS documents Level 3	Database	Printed/digital	Chronological	2 years	Eliminate
R01-AGC.CD-04 MS document revision status control matrix	Database	Digital	Chronological	2 years	Eliminate
R01-AGC.CD-05 Identification and control of external documents	Database	Printed/digital	Chronological	2 years	Eliminate

7. GLOSSARY

Approval:
Formal acceptance of a document, product, service, item, or activity

Quality:
Degree to which a set of inherent characteristics meet the requirements

Data:
Any formal knowledge used as input for processes, serving in general as the basis for the drafting of controlled documents. Controlled data are, *inter alia*: drawings, external standards.

Document:
Information and its support medium

Efficacy:
Extent to which planned activities are executed and the planned results achieved

Efficiency:
Relationship between the result achieved and the resources used

Management:
Coordinated activities for managing and controlling an organisation

Aeronautical information:
The result of grouping, analysing, and formatting of aeronautical data

Work instructions:
A procedure that describes the activities carried out by organic units

Quality management manual
A document that contains the technical and administrative conception of the quality management system and that:

- permits the definition of the scope of the system and the commitment of top management with respect to the quality of its established processes, products, and services.
- permits the provision of control tools through the development and use of procedures or work instructions, documents, formats, records, and documents related to the management of the organisation.
- serves as a guide in the pursuit of customer satisfaction and process optimisation.

Quality policy
Action criterion or guideline chosen to guide the decision-making process, through the implementation of strategies, plans, programmes, and projects specifically related to the quality of the AIS service for national and international air navigation, formally expressed and disseminated by top management.

Procedure:
A specified way of conducting an activity or process

Process:
A set of mutually related or interacting activities that transform inputs into results

Revision:
The current status of the document, numbered in sequential and ascending, starting with 00 (*e.g.,* Revision 00, Revision 01...). Activity undertaken to ensure the convenience, adaptation, and efficacy of the subject matter of the revision, in order to attain the established objectives

Records:
Records are established and maintained as evidence of compliance with the requirements and of the effective operation of the quality management system. Records must remain easily identifiable and retrievable.
Records R01 indicate compliance with the requirements; records R02 refer to efficacy; and records R03 refer to continuous improvement.

Requirement:
An established need or expectation, generally implicit or mandatory

Quality management system (QMS):
System for managing and controlling quality in an organisation. Group of human and material resources, coordinated through structured documents and based on the Safety Manual, aimed at ensuring that processes comply with the recommendations of ISO 9001:2008.

8. ANNEXES

Annex I: "General Matrix of QMS documents Level 1"
R01-AGC.CD-01

Annex II: "General Matrix of QMS documents Level 2"
R01-AGC.CD-02.

Annex III: "General Matrix of QMS documents Level 3"
R01-AGC.CD-03

Annex IV: "Control matrix of the status of revision of QMS documents"
R01-AGC.CD-04.

Annex V: "Identification and control of external documents"
R01-AGC.CD-05

ANNEX I

GENERAL MATRIX OF QMS DOCUMENTS LEVEL 1

CODE: R01-AGC.CD-01 **REVISION: 00/XX-XX-2012**

Example:

D E S C R I P T I O N	CODE	REVISION	DATE
Example: Quality Policy		00	dd/mm/yy

ANNEX II

GENERAL MATRIX OF QMS DOCUMENTS LEVEL 2

CODE: R01-AGC.CD-02 **REVISION: 00/XX-XX-2012**

Example:

D E S C R I P T I O N	CODE	REVISION	DATE
Example: Aeronautical Information Process	PR-4 2-AISSPIM-01	00	dd/mm/yy

ANNEX III

GENERAL MATRIX OF QMS DOCUMENTS LEVEL 3

CODE: R01-AGC.CD-03 **REVISION: 00/XX-XX-2012**

Example:

D E S C R I P T I O N	CODE	REVISION	DATE
Example: IT of the aeronautical publications sub-process	IT-4 2-AISSPIM-02	00	dd/mm/yy

REVISION	DATE
00	XX/XX/XX

ANNEX IV

CONTROL MATRIX OF THE STATUS OF REVISION

CODE: R01-AGC.CD-04 **REVISION: 00/XX-XX-2011**

REVISION	DATE OF MODIFICATION	REMARKS

Revision — Status of the current version – Example: 01 corresponds to Revision 01, etc.

Date of Modification: — Date of approval

Remarks: — Conditions that gave rise to the revision of the document

REVISION	DATE
00	XX/XX/XX

ANNEX V

IDENTIFICATION AND CONTROL OF EXTERNAL DOCUMENTS

CODE: R01-AGC.CD-05 **REVISION: 00/XX-XX-2011**

DOCUMENT	ISSUING BODY	DISTRIBUTION CONTROL	RESPONSIBLE FOR THE DISTRIBUTION

PROCEDURE FOR DRAFTING QUALITY MANAGEMENT SYSTEM DOCUMENTS

Revision 00

2012

DRAFTING OF THE DOCUMENT	REVISION OF THE DOCUMENT	APPROVED
		General Manager

REVISION		DATE
00	This printed document is an uncontrolled document	XX/XX/2012

SUMMARY

1. OBJECTIVE

Establish guidelines for drafting the different types of documents of the Quality Management System (hereinafter QMS) in (name of the organisation), applying a methodology based mainly on documented policy statements, the plan of quality objectives, the quality manual, procedures and work instructions.

2. SCOPE

This procedure applies to all organic units that provide air navigation and airport services of (name of the organisation).

3. RESPONSIBILITIES

3.1 The organic units that provide air navigation and airport services are responsible for:

a) Proposing, drafting, maintaining, reviewing, signing, and disseminating amongst its personnel the documents for planning, operating, and controlling its operational processes and working as a team with the enabling personnel of the air traffic service quality management area.

3.2 The Quality Management Area of air traffic services and the Organisation and Methods Area are responsible for:

a) Coordinating with the heads of the Air Navigation and Airport Services Area for the creation of work teams to develop the required QMS documents.
b) Proposing, formulating, maintaining, reviewing, signing, and disseminating the Documented Procedures required by ISO standard 9001.
c) Formulating, reviewing, and signing the documents (Procedures and Work Instructions) of the operational processes of air navigation and airport services, in work team sessions with the personnel of the respective organic units, ensuring compliance with customer, legal, and regulatory requirements applicable to the product or service and those of the organisation.
d) Ensure the validity of this procedure.

4. LEGAL AND ADMINISTRATIVE BASIS

LEGAL BASIS

4.1. Civil Aviation Law and regulations of the country

4.2. Directors and ministerial resolutions

4.3. Supreme decrees

ADMINISTRATIVE BASIS

4.4. Strategic plan of the organisation

4.5. Current operational plan of the organisation

5. REQUIREMENTS

5.1 ISO Standard 9001:2008 (Clause 4.2. Documentation requirements)

6. DESCRIPTION OF ACTIVITIES

IN THE QUALITY MANAGEMENT AREA AND AIR NAVIGATION AND AIRPORT SERVICES AREA

6.1. Conceptualize, plan, and document the QMS documentation drafting requirement in order to comply with the documentation requirements established by the QMS or to comply with the current regulations concerning the activities of air navigation and airport services.

6.2. Designate and establish a work team for drafting the required documentation.

If the documentation required involves documented procedures under ISO 9001, go to item 6.3. Otherwise, go to item 6.4.

IN THE QUALITY MANAGEMENT AREA AND ORGANISATION AND METHODS AREA

6.3. Draft the documented procedures required by ISO 9001, in team work sessions, taking into account the concepts for drafting the policy, the plan of quality objectives, the quality manual, and the procedures or work instructions (see annex I), as well as the structure of a procedure or work instructions (see annex II).

Proceed to item 6.5.

IN THE AIR NAVIGATION OR AIRPORT SERVICES AREA

6.4. Design the documents (procedures or work instructions) in team work sessions, in relation to one aspect of the activities of air navigation and airport services —process planning, operation, and control—, taking into account the structure of a procedure or work instructions (see annex II).

IN THE QUALITY MANAGEMENT AREA AND THE AIR NAVIATION OR AIRPORT SERVICES AREA

6.5. Print and sign the final document for its revision at higher hierarchical levels.

7. RECORDS

Not applicable

8. GLOSSARY OF TERMS

For purposes of this procedure, the following definitions will apply:

Activity:
Set of actions required to complete a process

Approval:
Formal acceptance of a document, product, service, activity

Quality:
Extent to which a set of inherent characteristics meets the requirements

Coding:
Mechanism for assigning an individual code to a document of the management system, enabling its identification and relationship with other documents

Data:
Any knowledge used as input for the processes based on which SMS documents are drafted

Document:
Information and its supporting medium

Management:
Coordinated activities for managing and controlling an organisation

Work instructions:
Establishes the detailed sequence of activities carried out by organic units

Aeronautical information:
The result of the grouping, analysis, and formatting of aeronautical data

Quality manual:
A document containing the technical and administrative conception of the quality management system that:

- Permits the determination of the scope of the system and the commitment of top management with respect to the quality of its established processes, products, and services.
- Provides control tools, through the development and use of procedures or work instructions, documents, formats, records, and documents related to the management of the organisation.
- Serves as a guide for customer satisfaction and process optimisation

Quality policy:
Action criterion or guideline selected as a guide for the decision-making process when implementing or executing the strategies of specific quality plans, programmes and projects in air navigation and airport services for domestic and international air navigation, formally expressed and disseminated by top management

Quality plan:
Establishes the methodology to follow-up the provision of services through indicators, in order to achieve the objectives that will enable the attainment of high quality levels. Programmed planning to exceed customer expectations as well as the quality standards established by the organisation

Procedure:
Specified form of conducting an activity or process.

Note 1.- Procedures may or may not be documented.

Note 2.- When a procedure is documented, the term "written procedure" or "documented procedure" is often used. The document containing a procedure may be called "procedure document".

Process:
Set of mutually related or interacting activities that transform inputs into results

Requirement:
An established need or expectation, generally implicit or mandatory

Revision:
Current status of the document, sequentially numbered in ascending order, starting with 00 (*e.g.,* Revision 00, Revision 01...). Activity undertaken to ensure the advisability, adaptation, and efficacy of the subject matter to attain the established objectives.

Records:
Records are established and maintained as evidence of compliance with requirements and of the effective operation of the quality management system. Records must be easily identifiable and retrievable.
Records R01 indicate compliance with requirements, R02 refer to efficiency, and R03 are related to continuous improvement.

Quality Management System (SGC):
Management system used for directing and controlling an organisation with respect to quality. Group of human and material resources coordinated through structured documents and based on the Quality Manual that seeks to ensure processes comply with ISO 9001 requirements.

Sub-process:
Set of related activities that fall within the scope of a process.

9. ANNEXES

Annex I : Concepts for drafting ISO 9001 documented procedures

Annex II : Structure of a procedure or work instructions

Annex III : Control of revision status

Annex I

Concepts for Drafting ISO 9001 Documented Procedures

A. Concept for drafting the quality policy and objectives plan

The Quality Policy is a written document published under the authority of the General Manager of (name of the organisation) and contains a tangible indication of the direction and quality commitment of the organisation.

The Quality Policy document will be coded:

PQ-5.3-GG-NN where:

PQ : Quality Policy
5.3 : Corresponds to 5.3 of ISO 9001
GG : The highest managerial level of the organisation
NN : Correlative number of the status of revision 01, 02...etc.

The Quality Objectives Plan is established by the various units that provide air navigation and airport services, and contains quantifiable objectives that are consistent with the quality policy.

The Quality Objectives Plan document will be coded as follows:
PC-5 4-CCCCCCCC-NN, where:

PC : Quality Objectives Plan
5.4 : Item 5.4 of ISO 9001
CCCCCCCC : Abbreviation of the organic unit
NN : Correlative number, 01, 02…etc.

B. Concept and structure of the Quality Manual

The Quality Manual (MC) is the technical, operational, and administrative conception of how air navigation and airport services operate with respect to quality and safety management.

The Quality Manual is divided into the following chapters:

Chapter I: Introduction
Chapter II: Process identification
Chapter III: Terms and definitions
Chapter IV: Quality Management System
Chapter V: Management responsibilities
Chapter VI: Resource management
Chapter VII: Execution of the product or service
Chapter VIII: Measurement, analysis, and improvement
Chapter IX: Appendix

The Quality Manual will be coded as follows:

MC-4.2-AGC, where:

MC : Quality Manual
4 2 : Item 4.2 of ISO 9001:2008
AGC : Abbreviation of the organic unit of the quality management area.

C. Concept for drafting the QMS Procedures or Work Instructions

a) When drafting the aforementioned documents, the following must prevail:

- Make sure that the operating process and the methodology are described;
- Make sure that the process or activity meets the established requirements;
- Be simple;
- Be clear;
- Be objective;
- The process must reflect current operations.

b) The font to be used is Arial size 10 for the text and Arial 12 for the titles. For the heading and footnotes of the document, use will be made of Arial 10 in bold letters.

c) The record “Control of the status of revision” R01-OyM-05 must be published together with each document in the intranet of the organization to indicate the status of the current version.

Annex II

Structure of a Procedure or Work Instructions

I.- Heading

It will appear in all the pages of the procedure, and will contain the following:

- Logotype of the organisation
- Title of the procedure or work instructions – The purpose (subject matter) of the document must clearly and concisely stated.

  Example: Meteorological service for international air navigation, Quality Manual, Work instructions for weather forecasts by the aerodrome meteorological office of (name of the aerodrome).
- Coding.- It will serve to identify the document and will have the following structure:

AA-BB-CCCCCCCC-DD:

AA : No more than two characters to indicate the type of document.

PR= Procedure that describes the processes of the competent organic units.

IT= Work instructions that describe the activities that organic units perform.

B.B : Characters that indicate the number of the ISO 9001 clause related to the document.

Example:
If it corresponds to item 7.5 of the standard, it will appear as 7.5.

CCCCCCCC : Abbreviation of the air navigation or airport service unit responsible for drafting the document and location indicator.
This abbreviation will contain no more than eight characters.

Example:
AIS - Aeronautical information area
MET - Meteorology area
TWRSPIM – Aerodrome air traffic control service - Lima
OMA - Aerodrome meteorological office
AGC - Quality management area

DD : Correlative number of the document

- Page number

II.-Footnote

The footnote will appear in all the pages of the procedure, and must contain the following:

- Revision.- The current version, numbered in ascending order, starting with 00. Example: Revision 00, Revision 01…. When the document is modified, the revision number will change and changes will appear in italics.

- Date.- Effective date of the procedure in DD/MM/YY format.

  DD: Day
  MM: Month
  YY : Year

III.- Structure of procedures or work instructions

1) Objective

Clearly state the purpose of the work procedure or instruction

2) Scope

State the organic units to which the document applies

3) Responsibilities

Identify the responsibility of each position involved in the procedure or work instruction, according to the activities identified.

4) Legal and administrative basis

Document that serves as the basis for the preparation and structuring of a procedure or work instruction

5) Requirements

Identify the acceptance criteria in current regulations that constitute an established and mandatory need to execute the process and/or activity. Failure to comply with the acceptance criteria will constitute a non-conformity.

6) Description of activities

Defines the form and lists the organic units, heads of area, supervisors or person(s) responsible for executing the tasks within the main activity. The process model and flow diagrams may be used for the tasks and responsible parties.

7) Records

Records are all those data and information stored in paper or in electronic format that demonstrate compliance with requirements related to current regulations, efficacy, and continuous improvement of the activities of air navigation and airport services.

Indicate formats, messages, reports, templates, recordings in various magnetic media, and others, including the following information: identification, storage, protection, retrieval, retention, and disposal of records).

This information is necessary for quality and safety studies, investigations, and audits.

8) Glossary of terms

Catalogue or vocabulary of words, with their explanation

9) Annexes

Lists all forms directly related to the document. Annexes are identified in Roman numbers

Annex III

CONTROL OF THE REVISION STATUS

CODE: R01-OyM-05 **REVISION: 02/14-01-2010**

REVISION	PREPARED BY	REVISED	APPROVED	REASON FOR THE MODIFICATION	DATE

CONTROL OF RECORDS OF THE AIS MANAGEMENT SYSTEM

Revision 00

2012

ISSUED	REVIEWED	APPROVED

SUMMARY

CONTROLMATRIX OF THE STATUS OF REVISION

CODE: R01-AGC.CD-04 **REVISION: 00/XX-XX-2011**

REVISION	DATE OF MODIFICATION	REMARKS

Revision — Status of current version – Example: 01 corresponds to Revision 01, etc.

Date of modification — Date of approval

Remarks: — Conditions that have given rise to the revision of the document

1. OBJECTIVE

1.1 This procedure establishes guidelines for:

- establishing and controlling the records that show conformity with requirements and effective operation of the management system.

- defining controls for the identification, storage, protection, retrieval, retention, and disposal of records of the quality management system. Records must remain legible, easily identifiable, and retrievable.

2. SCOPE

2.1 This procedure applies to all organic units that provide AIS for national and international air navigation of (*name of the organisation*).

3. RESPONSIBILITIES

3.1 The implementation and maintenance of this procedure is responsibility of the unit in charge of the management system.

3.2 The head of the AIS and the heads of the organic units that provide AIS to national and international air navigation, in coordination with the personnel of those organic units, are responsible for establishing and controlling the use and maintenance of the records that show effective operation of the management system.

4. REFERENCES

4.1 Management manual

4.2 Drafting and presentation of QMS documents (PR-4.2-AGC-1).

4.3 The board, through agreement N° (number) of (date) approved the AIS quality management system implementation plan for national and international air navigation.

4.4 Strategic plan of (name of the organisation*)*

4.5 Doc 8126 “Aeronautical Information Services Manual.

5. REQUIREMENTS

5.1. Management manual

5.2 ISO 9001:2008 (Clause 4.2.4) Control of records

5.3 ISO 9000:2005 (Clause 2.7.2 Types of documents used in quality management systems).

6. DESCRIPTION OF ACTIVITIES

6.1 Every procedure has a "requirement" as an input variable, which represents the needs and expectations of stakeholders. To meet these needs, processes are created, which are reflected in documents.

6.1.1 Records are generated in the documents (procedures or work instructions) as evidence of compliance with the requirements and of the effective and efficient operation of the quality management system.

6.1.2 Records have been classified as R01, R02, R03. **R01** records show compliance with requirements, such as customer requirements or those established in the standards listed in item 5 of this procedure.

6.1.3 **R02** records show efficacy, that is, the extent to which planned activities are executed and planned results are attained.

6.1.4 **R03** records show continuous improvement, that is, the efficacy of the quality management system, through the quality policy, quality objectives, audit results, data analysis, corrective and preventive action, and management review.

6.1.5 CONTROL OF RECORDS

A.- Identification

- The following records are established:

- **Records showing that requirements are being met**

  Examples:
  - Pre-flight AIS information
  - Training course certificates.
  - Provider service assessment record.

- **Records that show efficacy**

  Examples:
  - Progress and goal achievement charts.
  - Non-conforming product or service report.
  - Customer satisfaction assessment surveys.

- **Records that show continuous improvement**

  Example:
  - Corrective or preventive action
  - QMS management review

- **Identification of records**

  Records will be coded as follows:

  RNN – AAAAAAAA.BBB - CC where:

  R : Record

  NN : 01.- Records of compliance with requirements
  02.- Efficacy records
  03.- Continuous improvement records

  AAAAAAAA : Abbreviation of the organic unit responsible for preparing the record format.

  BBB : Abbreviation of the document, as detailed. These digits will not be used in the case of operational documents of air navigation, maintenance, and logistics services.

CD	Document control
CR	Record control
IC	Quality indicators
AI	Internal audit
CPN	Non-conforming product control
ACP	Corrective or preventive action
RAD	Top management review
Others	

  CC : Correlative number of the record of a given area.

  The status of revision of each record is:

  REVISION CC/FF – EE – DDDD, where:

  REVISION CC: Current version of the record (CC=00, 01, 02,...n)
  FF: Day of revision of the record
  EE: Month of revision of the record
  DDDD: Year of revision of the record

B.- Storage

- Each record generated by the organic units of AIS air navigation, airport, and logistics services must be placed in a given location and guarded by the personnel designated by the corresponding head of the unit.

C.- Protection

- Each MS record must be preserved in a physical or digital medium (cabinets, drawers, shelves or other computer medium) to avoid deterioration, damage, or loss of information.

- Records kept in a computer medium must have a backup.

D.- Retrieval

- MS records must be available in such a way that they are of easy access for users in their daily operations and during quality audits. Each head of area is responsible for allowing personnel to have access to them.

E.- Retrieval

- MS records must comply with the specific conservation period, in accordance with the current legislation and that established in each organic unit.

F.- Disposal of records

- All records will be kept during the storage period in a physical or electronic file in each organic unit. Every year, the guardians of the records will review their files and inform the head of the area or the person in charge of the MS the dates in which the custody expires. This person disposes of such records and proposes recycling, elimination, destruction, or transfer to the central archive of the organisation.

7. RECORDS

IDENTIFICATION	STORAGE	PROTECTION	RETRIEVAL	RETENTION	DISPOSAL
R01-AGC.CR-01 General matrix of controlled MS records Level 1.	(*name of MS organic unit)*	Printed/Digital	Chronological	3 years	Eliminate
R01-AGC.CR-02 General matrix of controlled MS records Level 2.	(*name of MS organic unit)*	Printed/Digital	Chronological	3 years	Eliminate
R01-AGC.CR-03 General matrix of controlled MS records Level 3.	(*name of MS organic unit)*	Printed/Digital	Chronological	3 years	Eliminate
R01-AGC.CR-04 Matrix of MS records controlled in organic units	(*name of MS organic unit)*	Printed/Digital	Chronological	3 years	Eliminate

8. GLOSSARY

Quality:
Extent to which a set of inherent characteristics meet the requirements

Coding:
Mechanism for assigning an individual code to a QMS document for its identification and linkage with other documents

Data:
Any formal knowledge used as input for processes, serving in general as the basis for the drafting of controlled documents. Controlled data are, *inter alia*: drawings, external standards.

Document:
Information and its support medium

Example: Record, specification, documented procedure, map, report, standard.

Note 1: The support medium may be paper, magnetic, optic, or electronic disc, photography, or standard sample, or a combination thereof.

Note 2: A set of documents, for example, specifications and records, are frequently called "documentation".

Note 3: Some requirements (for example, the legibility requirement) are related to all types of documents, although there may be different requirements for specifications (for example, the requirement of controlling through revisions) and records (for example, the retrievability requirement).

Conformity:
Compliance with a requirement

Efficacy:
Extent to which planned activities are executed and the planned results achieved

Efficiency:
Relationship between the result achieved and the resources used

Information:
Data with a meaning

Work instructions:
A procedure that describes the activities carried out by organic units

Procedure:
A specified way of conducting an activity or process

Note 1.- Procedures may or may not be documented.

Note 2.- When a procedure is documented, the term "written procedure" or "documented procedure" is frequently used. The document that contains a procedure may be called "procedure document".

Process:
A set of mutually related or interacting activities that transform inputs into results

Revision:
The current status of the document, numbered in sequential and ascending, starting at 00 (*e.g.,* Revision 00, Revision 01...). Activity undertaken to ensure the convenience, adaptation, and efficacy of the subject matter of the revision to attain the established objectives

Records:
Records are established and maintained as evidence of compliance with the requirements and of the effective operation of the quality management system. Records must remain easily identifiable and retrievable.
Records R01 indicate compliance with the requirements; records R02 refer to efficacy; and records R03 refer to continuous improvement.

9. ANNEXES

Annex I: General matrix of MS controlled records Level 1

Annex II: General matrix of MS controlled records Level 2

Annex III: General matrix of MS controlled records Level 3

Annex IV: Matrix of MS records controlled in organic units

ANNEX I

GENERAL MATRIX OF MS CONTROLLED RECORDS LEVEL 1

CODE: R01-AGC.CR-01 **REVISION: 00/XX-XX-2011**

DESCRIPTION	REVISION	DATE	IDENTIFICATION	STORAGE	PROTECTION	RETRIEVAL	RETENTION	DISPOSAL

ANNEX II

GENERAL MATRIX OF MS CONTROLLED RECORDS LEVEL 2

CODE: R01-AGC.CR-02 **REVISION: 00/XX-XX-2011**

DESCRIPTION	REVISION	DATE	IDENTIFICATION	STORAGE	PROTECTION	RETRIEVAL	RETENTION	DISPOSAL

ANNEX III

GENERAL OF MS CONTROLLED RECORDS LEVEL 3

CODE: R01-AGC.CR-03 **REVISION: 00/XX-XX-2011**

DESCRIPTION	REVISION	DATE	IDENTIFICATION	STORAGE	PROTECTION	RETRIEVAL	RETENTION	DISPOSAL

ANNEX IV

MATRIX OF QMS RECORDS CONTROLLED IN ORGANIC UNITS

ORGANIC UNIT: *Example: PUBLICATIONS AND CHARTING TEAM*

CODE: R01-AGC.CR-04 **REVISION: 00/XX-XX-2011**

DESCRIPTION	REVISION	DATE	IDENTIFICATION	STORAGE	PROTECTION	RETRIEVAL	RETENTION	DISPOSAL

PROCEDURE FOR CONTROLLING QMS NON-CONFORMING SERVICES/PRODUCTS

Revision 00

2012

DRAFTING OF THE DOCUMENT	REVISION OF THE DOCUMENT	APPROVED

SUMMARY

CONTROL OF THE REVISION STATUS

CODE: R01-OyM.CD-05 **REVISION: 03/21-02-2011**

REVISION	DATE MODIFIED	REMARKS
00		

1. OBJECTIVE

1.1 Establish guidelines for identifying, controlling, and dealing with services/products that are not in compliance with ICAO standards, and recommended practices, the national legislation, and customer requirements, to make sure they are not used and that corrective action is established and taken.

2. SCOPE

2.1 This procedure applies to all organic units of (name of the organisation) that provide air navigation and airport services at national level.

3. RESPONSIBILITIES

3.1 The Organisation and Methods Area and the ATS Quality Management Area are responsible for the implementation and maintenance of this procedure.

3.2 The employees of air navigation and airport services are responsible for identifying, recording, and communicating to their immediate supervisors any non-conforming services/products (non-conformities). They must also take immediate action, as established in the operational procedures, including reprocessing, correction, or amendment of the non-conformity identified.

3.3 Shift supervisors or whoever acts on their behalf must record the identified non-conforming services/products in the established service formats and deliver them to the corresponding heads. If the non-conformity is notified by the user, the official, head of area, head of team, head of operations at the airport office or the operational personnel will receive the documentation and record the fact in the physical service sheet or report, or through an Integrated Safety Reporting System (SIRSO), and, if necessary, will send this information to the immediate superior.

3.4 The heads of team at the Lima headquarters and the heads of team of aeronautical operations or whoever acts on their behalf at provincial airport locations are responsible for documenting non-conformities and defining the action to be taken.

3.5 The heads of the air navigation services area and provincial airport administrators are responsible for controlling non-conformity records and defining the corrective action to be taken, in coordination with the operational personnel, if they have not been contemplated in the operational work instructions.

4. LEGAL AND ADMINISTRATIVE BASIS

LEGAL BASIS

4.1 Civil Aviation Law and regulations of the country

4.2 Directors and ministerial resolutions related to the provision of AIS services

ADMINISTRATIVE BASIS

4.3 Strategic plan of (name of the organisation)

4.4 Doc 8126 – Aeronautical Information Services Manual

5. REQUIREMENTS

5.1. ISO 9001:2008 (Clause 8.3 Control of non-conforming products)

6. DESCRIPTION OF ACTIVITIES

6.1 Identification and reporting of non-conforming services/products at provincial air navigation services and airports

6.1.1 Non-conforming services/products will be identified in accordance with the following criteria:

a) Failure to comply with:

- Current national technical norms;
- Aeronautical regulations of Peru;
- ICAO regulatory documents and Annexes concerning air navigation or airport services;
- Technical standards of the World Meteorological Organization (WMO); and
- User complaints.

b) The internal identification of non-conforming services/products is done by the operational personnel that provides the service, during operational process activities; if possible, immediate corrective action will be taken and if other action is required, it will be communicated to the immediate superior. In both cases, it will be recorded in the physical formats or sheets or will be reported in the service sheet or report;

c) The identification of the non-conforming service/product will also be done through internal, external, and follow-up quality audits;

6.1.2 non-conforming services/products identified by the customer may follow the following steps:

a) They will be communicated verbally, by phone, e-mail, or physical document to managerial, operational, or supervisory personnel responsible for each operational shift. The identified event must be recorded on the physical service sheets or in the integrated safety reporting system (SIRSO) of the aerodromes involved, and, if necessary, communicated in writing to the immediate superior for action.

b) They will be communicated to the General Directorate of Civil Aviation (*Dirección General de Aeronáutica Civil* - DGAC) and this competent authority will communicate the event to the officials in charge of operational services. The corresponding operational area will record this information in the respective registry or format for taking action; for example, the registry of customer complaints.

6.2 **Analysis of the non-conforming service/product**

6.2.1 The heads of areas, heads of teams, and heads of the aeronautical operations teams, or whoever acts on their behalf at provincial airports, will complete the non-conformity record established by the QMS internal audit procedure (PR-8.2-AGC-01) and, working as a team, will analyse the root causes of non-conformities and plan the action to be taken.

6.3 **Adoption of actions and verification of non-conforming services/products**

6.3.1 The operational personnel will take immediate action with respect to non-conforming services/products, including reprocessing, corrections, or amendments as established in their operational procedures. If the non-conformity requires other unforeseen action, the information will be submitted to the immediate superior for handling.

6.3.2 The heads of area, heads of teams, and heads of aeronautical operations teams or whoever acts on their behalf at provincial airports will determine any action not foreseen in their operational procedures to eliminate the causes of non-conformities, in accordance with the corrective and preventive action procedure (PR-8.5-AGC-1) of the QMS, and will advise the personnel responsible for such actions for their implementation. The aforementioned heads will check the efficacy and efficiency of planned and implemented actions.

The non-conforming service/product identified during internal or external audits will be addressed through corrective action or in accordance with the corrective and preventive action procedure (PR-8.5-AGC-1) of the QMS.

6.4 **Follow-up of actions to address non-conforming services/products**

6.4.1 The heads of area, heads of teams, heads of provincial aeronautical operations teams or whoever acts on their behalf, or internal auditors are responsible for following up the actions planned to address non-conforming services/products and for reporting the results to the associated managers and heads.

7. RECORDS

Identification	Storage	Protection	Retrieval	Retention	Disposal
R01-AGC.CNC-01 Letters of complaint from operators regarding non-conforming services or products.	Area/Organic Unit	Printed/digital	Chronological	3 years	Eliminate
R01-AGC.CNC-02 E-mails of complaint from operators regarding non-conforming services or products.	Area/Organic Unit	Printed/digital	Chronological	3 years	Eliminate

8. Glossary

Corrective action:
Action taken to eliminate the causes of **non-conformities** in order to prevent them from happening again

Note 1. – A non-conformity may be more than one cause

Note 2. – Corrective action is taken to prevent something from happening again, while preventive action is taken to prevent something from happening.

Note 3.- There is a difference between correction and corrective action.

Quality:
Extent to which a set of inherent characteristics meets the requirements

Customer:
Organisation or person that receives a product or service

Note Customers may be internal or external to the organisation.

Conformity:
Compliance with a requirement**.** Statement of facts, condition identified during an audit that meets audit criteria.

Correction:
Action taken to eliminate an identified non-conformity

Note 1.- A correction may be concurrent with a corrective action.

Note 2.- A correction may be, for example, a reprocess or a reclassification.

Efficacy:
Extent to which planned activities are carried out and planned results are achieved

Efficiency:
Relationship between the result achieved and the resources used

Management:
Coordinated activities for managing and controlling an organisation

Non-conformity:
Failure to comply with specified requirements or absence of the latter, which affects the effectiveness of the QMS to meet its goals or the established objectives.

Provider
Organisation or person that provides a product or service

Requirement:
Established need or expectation, generally implicit or mandatory

Records:
Records are established and maintained as evidence of compliance with the requirements, and of the effective operation of the quality management system. Records must be easily identifiable and retrievable.

R01 records indicate compliance with requirements, R02 records refer to efficacy, and R03 refer to continuous improvement.

Reprocess
Action taken on a non-conforming service/product so that it meets the requirements

Quality Management System (QMS)
A system for managing and controlling quality in an organisation.

9. ANNEXES

Not applicable