Quality Management System (QMS)

GUIDANCE FOR THE APPLICATION OF AERONAUTICAL METEOROLOGY (MET) QUALITY MANAGEMENT SYSTEMS (QMS)

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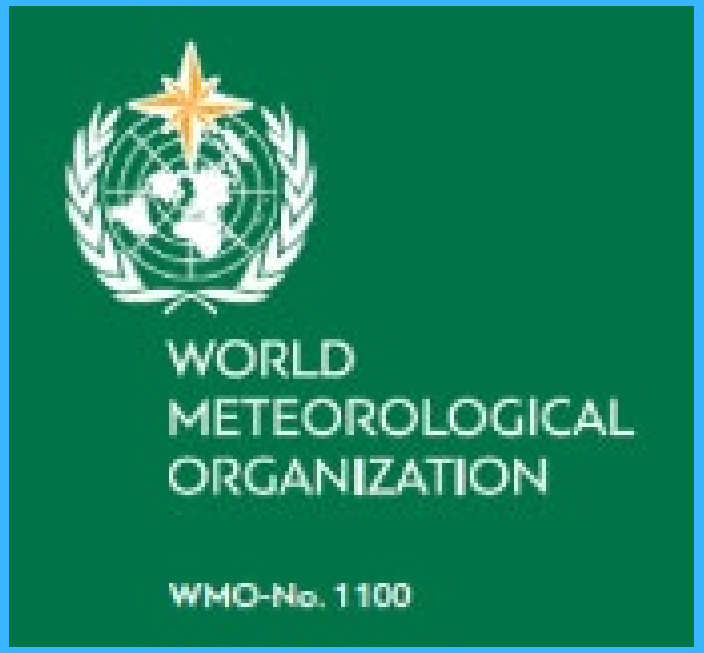
MET Inspector. Air Navigation Directorate
Instituto de Aeronáutica Civil de Cuba

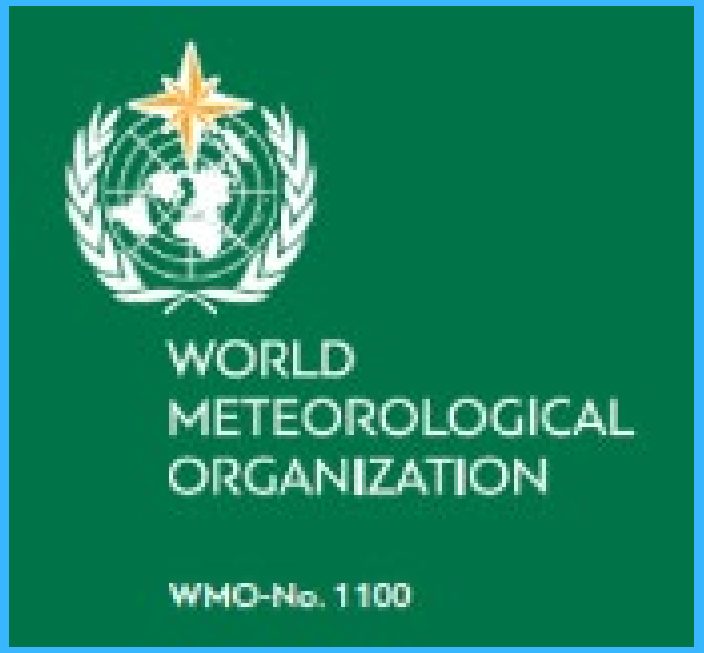
Objectives.

1- To explain the importance of the QMS in MET Services
2- To establish a Regulatory Framework for the implementation of the MET QMS
3- To show the Guidance for the Implementation of QMS in MET Services.

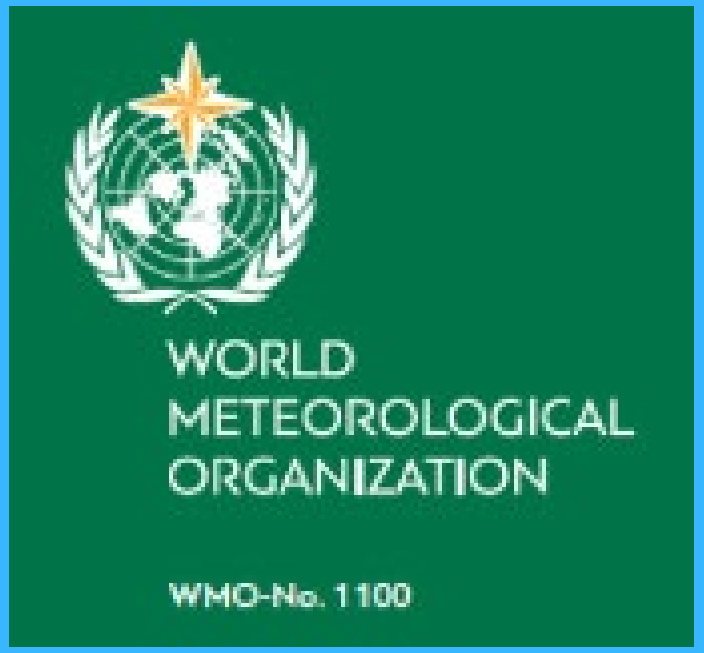
The adoption of a quality management model for products and services provided by National Meteorological and Hydrological Services (NMHS) responds to a series of imperatives and, mainly, to the requirements of the International Civil Aviation Organization (ICAO) in relation to the provision of aeronautical meteorological services.



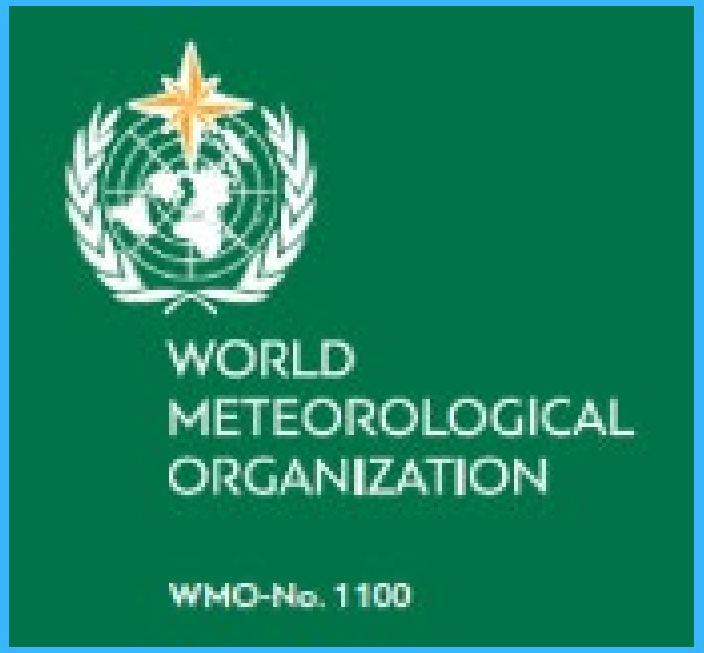
The World Meteorological Organization (WMO) first addressed the issue of quality management in May 2003, at the Fourteenth World Meteorological Congress (WMO, 2003). The congress approved Resolution 27 (Cg-XIV) – Quality Management, and decided that the WMO should work on the development of a quality management framework for NMHSs.



The importance of the standards of the International Organization for Standardization (ISO) 9000 family, and in particular of the ISO 9001 standard, lies in its international orientation. They are supported by national standards bodies in over 160 countries and, as such, they are the logical choice for an organisation like the WMO. Furthermore, WMO Members are encouraged to incorporate the ISO 9000 family of standards as good practice in their NMHSs.



The development and effective implementation of a quality management system will make achieving quality an important element at all levels of an organisation, which in turn will help ensure that products and services adjusted to an international standard are offered.



An ISO 9001-compliant quality management system is an excellent management tool for continuously measuring and monitoring the performance of an organisation's governance activities. The adoption of such a system makes it possible to measure the success or failure of corporate governance activities.

WORLD METEOROLOGICAL ORGANIZATION

WMO-No. 1100

Instituto de Aeronáutica Civil de Cuba

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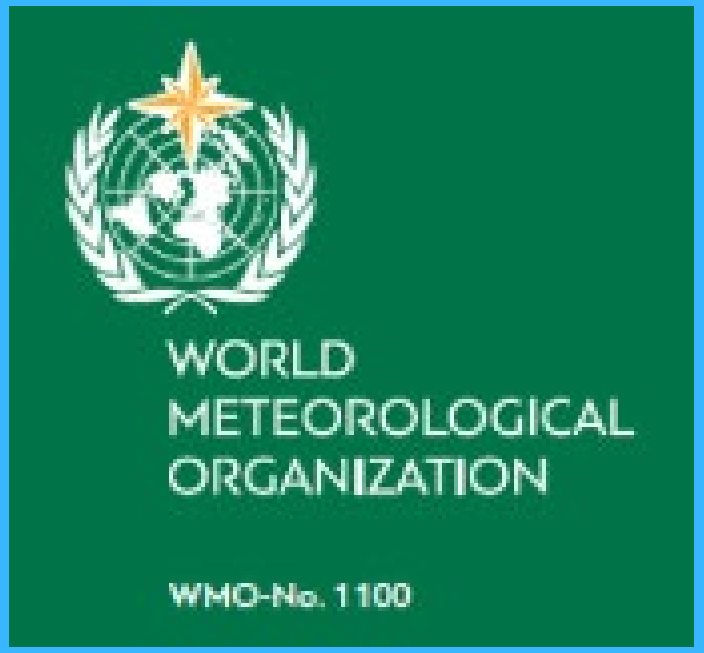
While the WMO does not require certificates of compliance, it recommends requesting them when appropriate. In Annex 3 – Meteorological Service for International Air Navigation of the International Civil Aviation Organization (ICAO, 2016), aeronautical meteorological service providers are required to be able to demonstrate, through an audit, the conformity of their quality system. Certification of compliance with the ISO 9001 standard is the most logical and conclusive proof for it.



REGULATORY FRAMEWORK FOR THE IMPLEMENTATION OF THE MET QUALITY MANAGEMENT SYSTEM IN CUBA

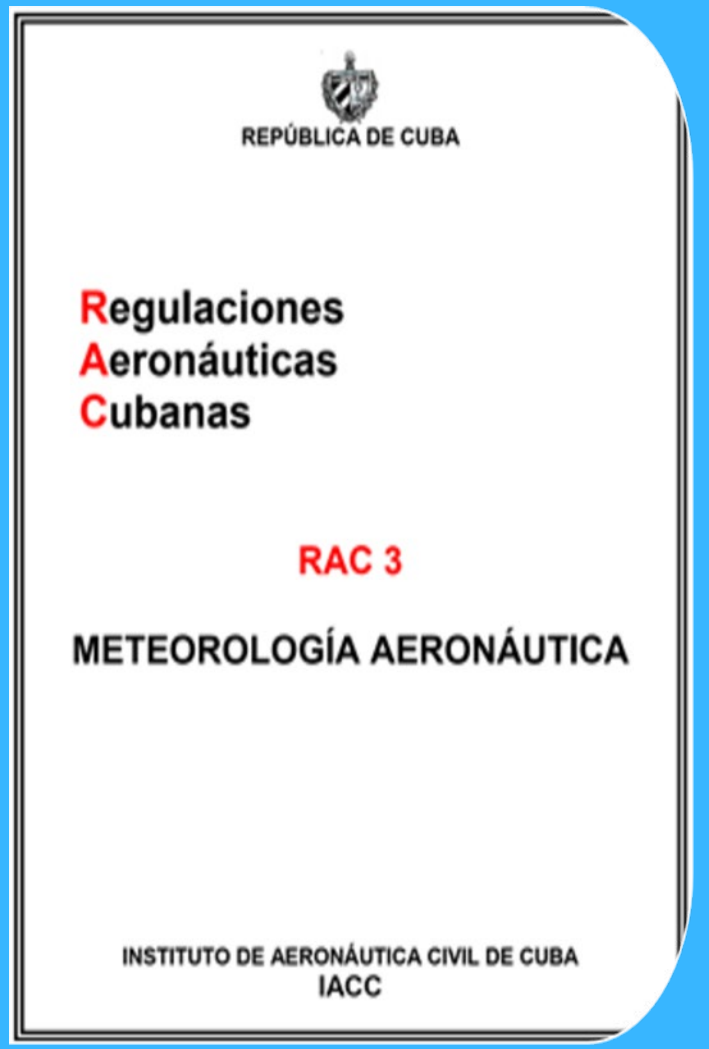
Decree Law 255/07

[courtesy translation]

Article 7: It is the responsibility of the Aeronautical Authority to organize and control the efficiency of the services of Air Traffic Control, Aeronautical Meteorology and Telecommunications, Air Navigation Aids, Aeronautical Information and Cartography. In exercise of this attribution, the Aeronautical Authority dictates the regulations that are necessary for the greater safety and efficiency of air navigation. In addition, it designates the dependencies or technical entities that provide

Cuban Aeronautical Regulations (RAC) 3
CHAPTER II, SECOND SECTION, Article 7:

To satisfy the purpose of the meteorological service for national and international air navigation, the meteorological authority has established that the provider of the aeronautical meteorology service applies a properly organized quality system that includes an Aeronautical Meteorology Process, with the procedures and resources required to provide the quality management of the meteorological information that must be supplied to the users indicated in Article 1 of this Chapter.



CHAPTER II, SECOND SECTION, Article 8:

The quality system established in accordance with the previous article, will conform to the quality assurance standards of the 9000 series of the ISO and will be certified by an approved organization.

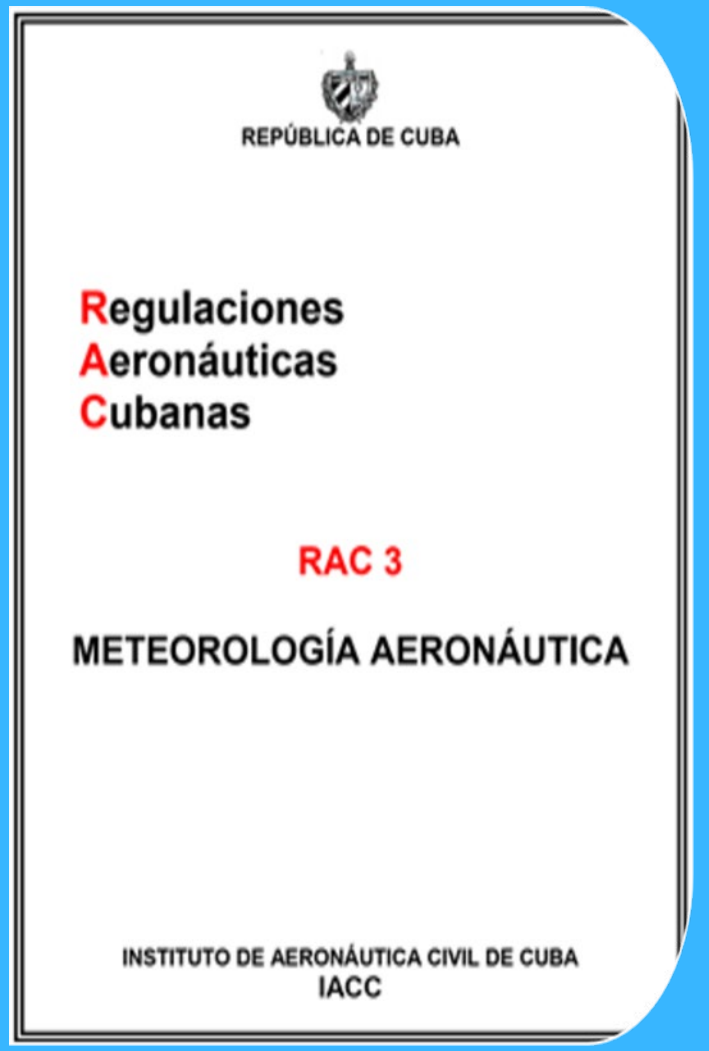
Note: The document “Guide to the Implementation of Quality Management Systems for National Meteorological and Hydrological Services and Other Relevant Service Providers” (WMO-No. 1100) provides guidance on the establishment and implementation of quality management systems.

CHAPTER II, SECOND SECTION, Article 9:

The Process will provide users with the guarantee that the meteorological information provided complies with the requirements indicated in terms of geographical and spatial coverage, format and content, issue date and frequency and validity period, as well as the accuracy of the measurements, observations and forecasts. Whenever the quality system indicates that the meteorological information to be provided to users does not meet the indicated requirements, and that the automatic error correction procedures are not adequate, such information will not be provided to aeronautical users, unless it is validated by the originator.

CHAPTER II, SECOND SECTION, Article 10:

Regarding the exchange of meteorological information for operational purposes, the verification and validation procedures and the resources to supervise compliance with the prescribed dates of transmission of particular messages and/or bulletins that are necessary to be exchanged and the hours of its presentation to be transmitted. The quality system will be able to detect excessive transit times of messages and bulletins received.

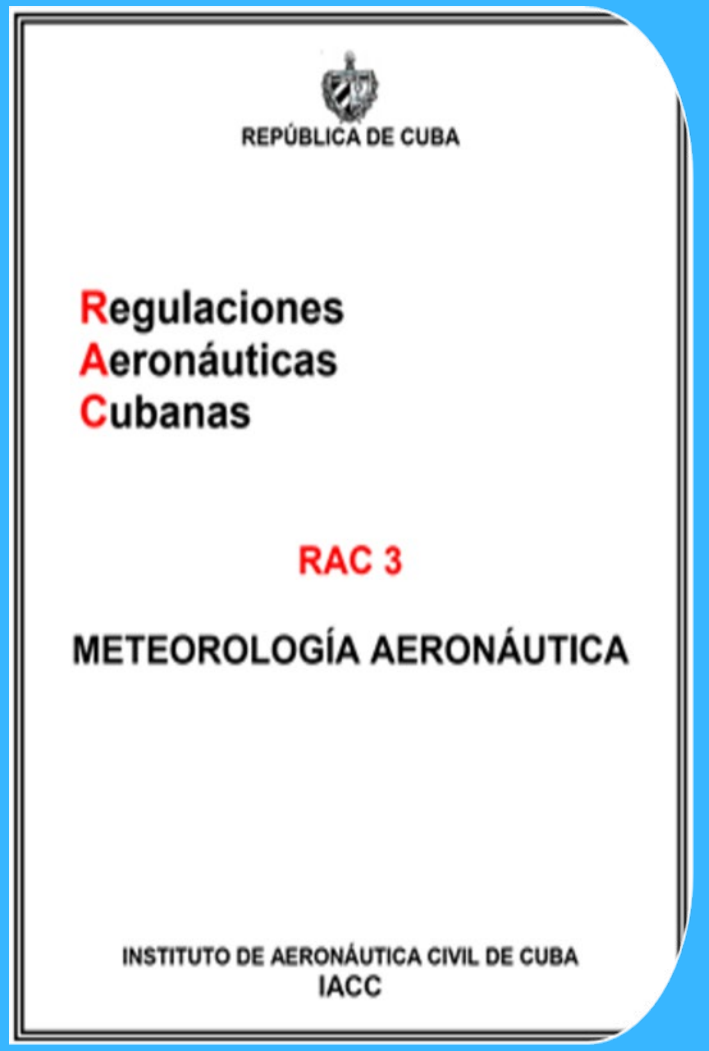


CHAPTER II, SECOND SECTION, Article 11:

Compliance with the applied quality system will be demonstrated through an audit. If the system is found to be non-compliant, measures will be taken to determine and correct the cause. All observations made during an audit will be evidence-based and properly documented.

CHAPTER II, SECOND SECTION, Article 12:

The aeronautical inspectors of the Directorate of Air Navigation of the Institute of Civil Aeronautics of Cuba (IACC) will periodically verify the records corresponding to the approved quality procedures of the Air Navigation Services Provider, as part of the continuous monitoring of compliance with the regulations established by the Aeronautical Authority.



CHAPTER IV, FIRST SECTION, Article 13:

To ensure the maintenance of a high degree of quality of the observations, the correct functioning of the instruments and all their indicators, annual calibrations (1 year of validity) of the meteorological instruments and equipment will be carried out by duly certified laboratories.

Structure of the Aeronautical Authority

Institute of Civil Aeronautics of Cuba

Air Navigation Directorate

Aeronautical Meteorology Authority

Structure of the Meteorological Service Provider

- Operations Management
- Technical direction

- Air Navigation Base Business Unit (UEB)

- Air Traffic Control Center

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Structure of the Meteorological Service Provider

Operations Management

- Establishes the technical requirements
- Directs the aeronautical meteorology process
- Sets national competency requirements
- Prepares the procedures

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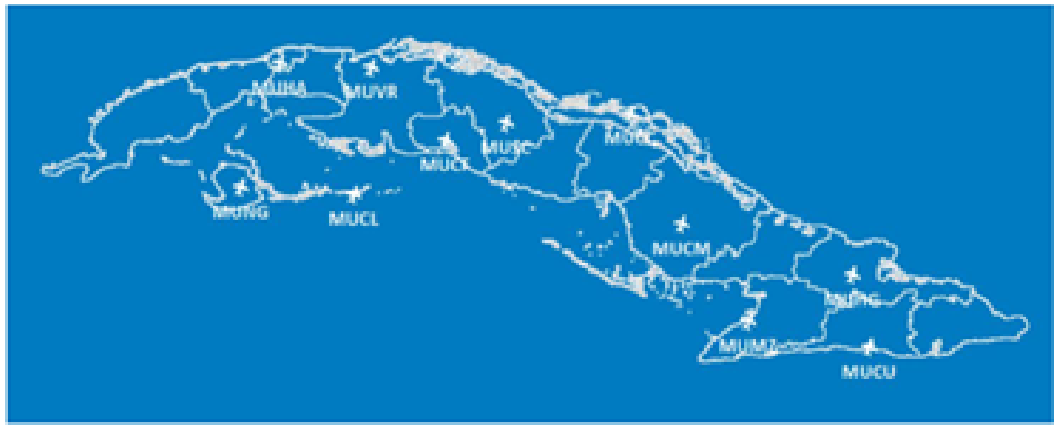
MAIN FUNCTIONS OF THE MAIN AND METEOROLOGICAL WATCH OFFICE (OPVM)

Prepare forecasts of local weather conditions and maintain continuous surveillance of national and international aerodromes.

- **We prepare 4 forecasts every 6 hours for 12 aerodromes**



MILITARY AIRPORTS

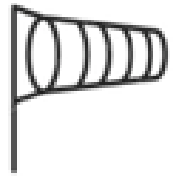
PLAYA BARACOA

SAN ANTONIO

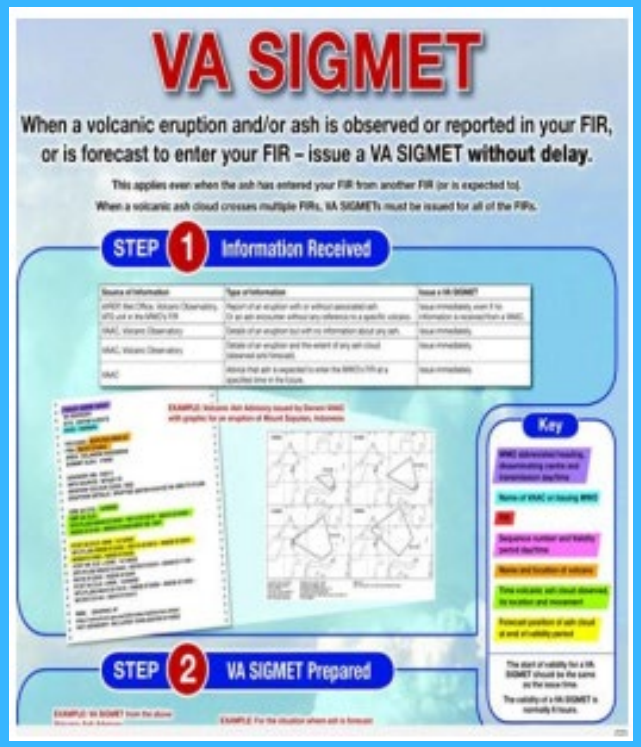
Aerodrome Warnings and Wind Shear Warnings

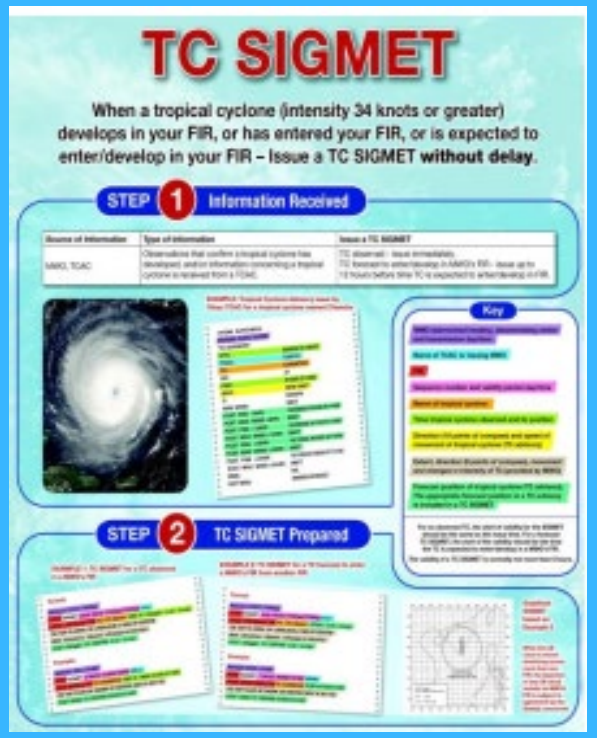
- **7 meteorological variables are forecast**

1. VISIBILITY	2. PRESENT WEATHER	3. CLOUD COVER
4. HEIGHT OF CLOUD BASE	5. TOWERING CUMULUS (TCU) / CUMULONIMBUS (CB) CLOUDS	6. WIND DIRECTION
7. WIND FORCE		



MAIN FUNCTIONS OF THE OPVM





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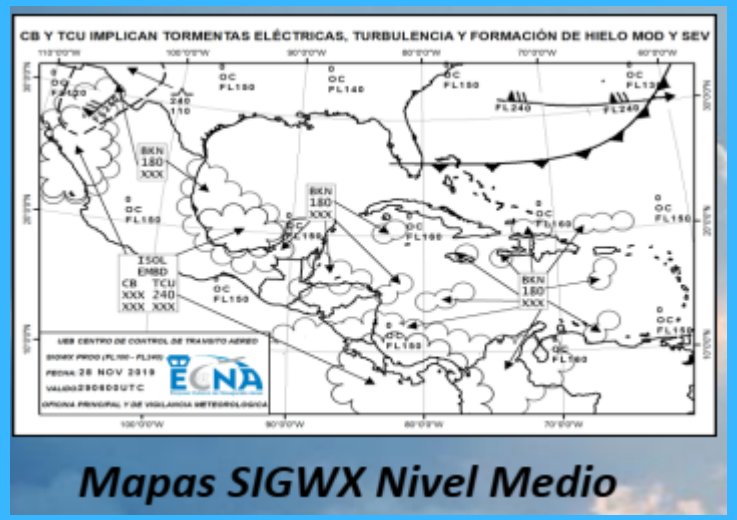
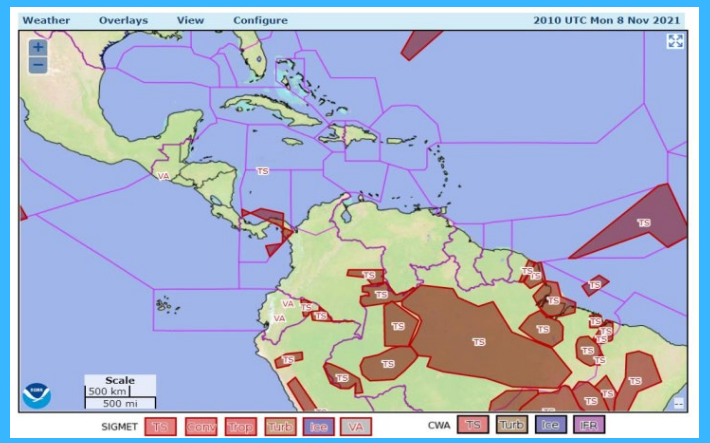
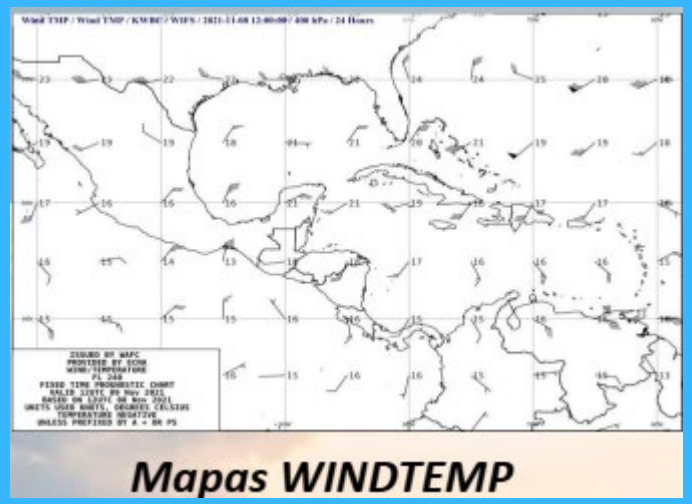
MAIN FUNCTIONS OF THE OPVM



Mapas SIGWX Nivel Medio





Mapas WINDTEMP

Mapas SIGWX Nivel Alto

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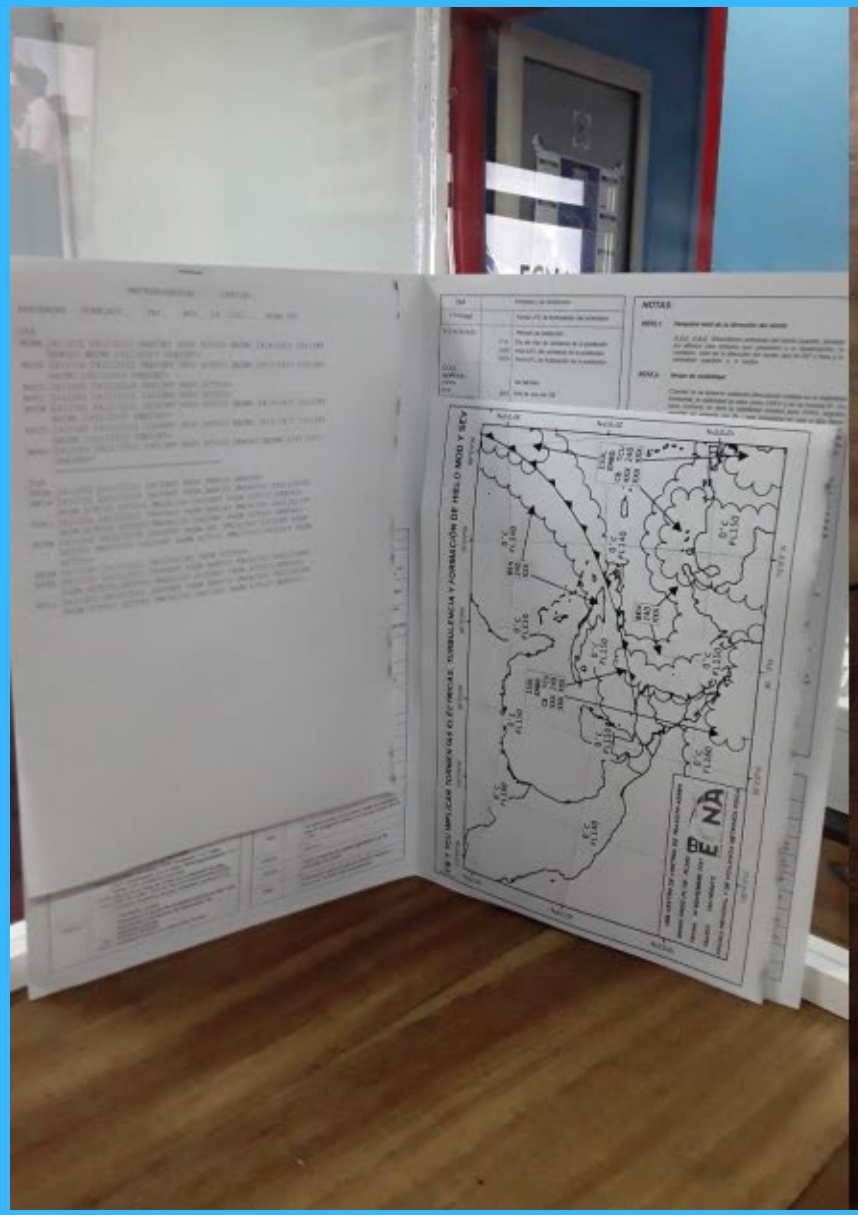
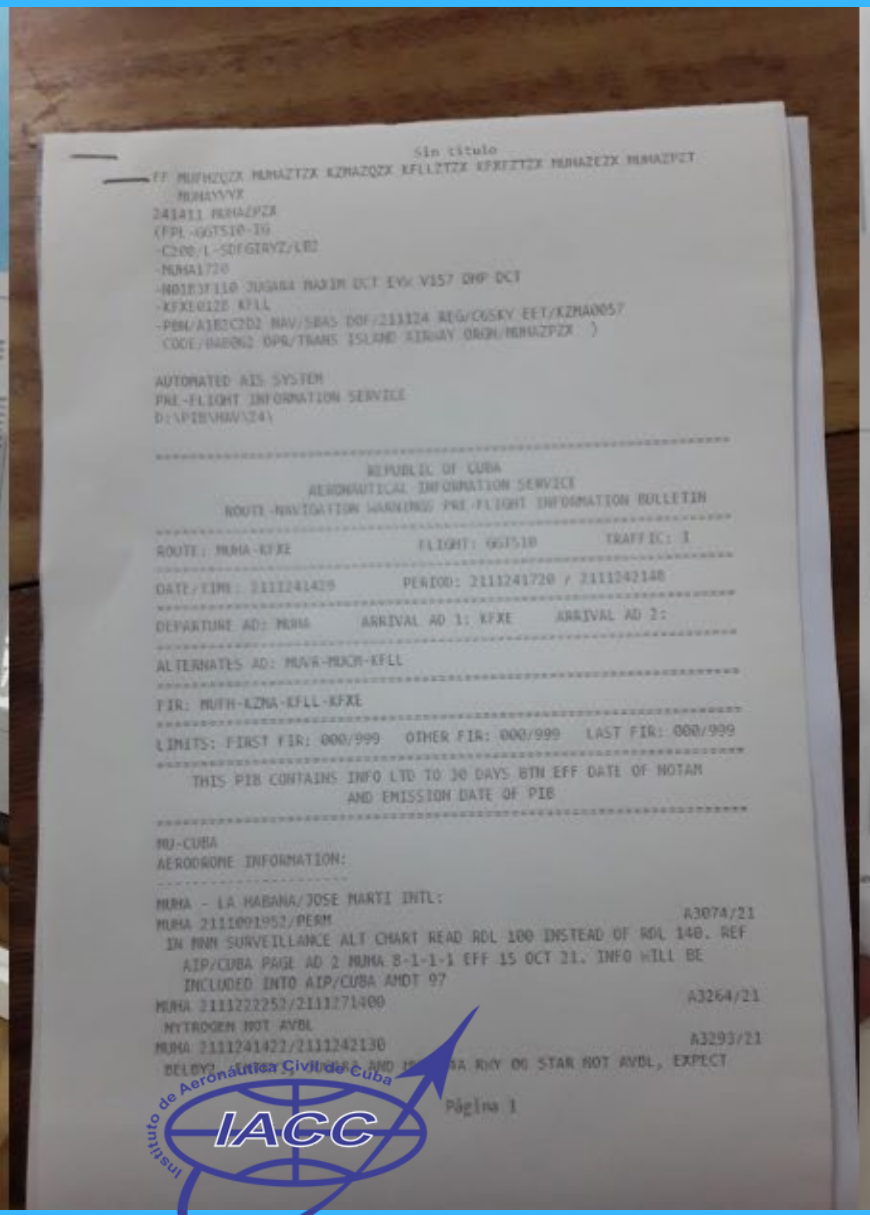
LOCATION OF THE AERODROME METEOROLOGICAL OFFICES (AMO) IN CUBA

Aeronautical Information Service (AIS)/MET Department

MAIN FUNCTIONS OF THE AMO





Sin titulo

FF MUFHZQZX MUMAZTZX KZMAZQZX KFLLZTZX KFKEZTZX MUMAZEZX MUMAZPZT
MUMAYYYX
241411 MUMAZPZX
(FPL-GGT510-IG
-C208/L-SDFGIRYZ/LB2
-MUMA1720
-N0183F110 JUGAR4 MAXIM DCT EVG V157 DHP DCT
-KFXE0128 KFLL
-PBN/A1B2C2D2 NAV/SBAS DOF/211124 REG/OSSKY EET/KZMA0057
CODE/A80062 OPR/TRANS ISLAND AIRWAY ORGN/MUMAZPZX)

AUTOMATED AIS SYSTEM
PRE-FLIGHT INFORMATION SERVICE
D:\PIB\HAV\Z4\

REPUBLIC OF CUBA
AERONAUTICAL INFORMATION SERVICE
ROUTE-NAVIGATION WARNINGS PRE-FLIGHT INFORMATION BULLETIN

ROUTE: MUHA-KFXE FLIGHT: GGT510 TRAFFIC: I

DATE/TIME: 2111241429 PERIOD: 2111241720 / 2111242140

DEPARTURE AD: MUHA ARRIVAL AD 1: KFXE ARRIVAL AD 2:

ALTERNATES AD: MUVR-MUCM-KFLL

FIR: MUFH-KZMA-KFLL-KFXE

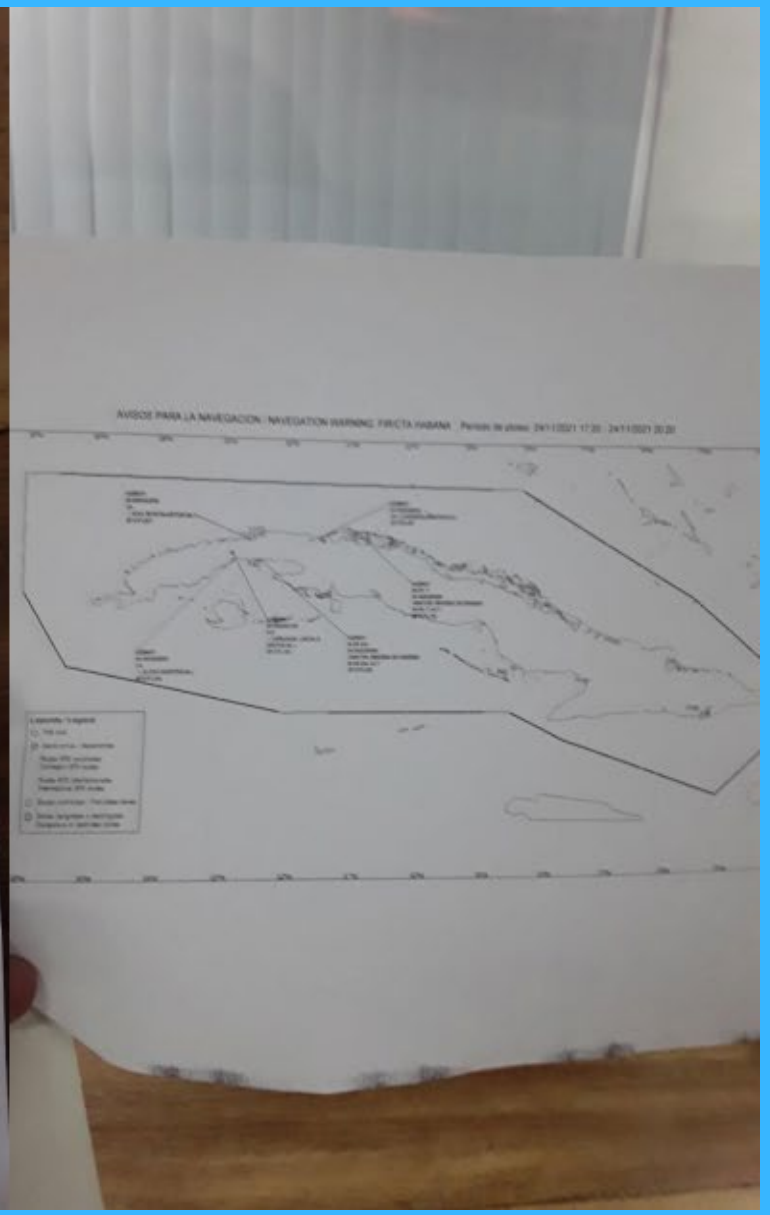
LIMITS: FIRST FIR: 000/999 OTHER FIR: 000/999 LAST FIR: 000/999

THIS PIB CONTAINS INFO LTD TO 30 DAYS BTN EFF DATE OF NOTAM
AND EMISSION DATE OF PIB

MU-CUBA
AERODROME INFORMATION:

MUHA - LA HABANA/JOSE MARTI INTL:
MUHA 2111091952/PERM A3074/21
IN MNM SURVEILLANCE ALT CHART READ RDL 100 INSTEAD OF RDL 140. REF
AIP/CUBA PAGE AD 2 MUHA B-1-1-1 EFF 15 OCT 21. INFO WILL BE
INCLUDED INTO AIP/CUBA AMDT 97
MUHA 2111222252/2111271400 A3264/21
NITROGEN NOT AVBL
MUHA 2111241422/2111242130 A3293/21
BELBY1 [illegible] RWY 06 STAR NOT AVBL, EXPECT

Página 1



MAIN FUNCTIONS OF THE AMO

MONTH	issued WX	AIS (PIB)	MET (files)	ARO (FPL)	NOTAM	TAF	% CUMPL	TOTAL OP	INCOME
ene-21	1587	81	84	71	2	113	88	102	4267
feb-21	1507	45	43	35	6	107	89	56	2219
mar-21	1505	68	72	54	4	124	91	83	3562
abr-21	1892	66	69	56	9	120	90	87	3472
may-21	1473	83	85	77	9	122	88	108	4389
jun-21	1868	64	68	61	12	114	84	91	3471
jul-21	1460	95	100	92	15	120	87	116	5142
ago-21	1431	73	85	82	38	123	91	105	4303
sep-21	1838	88	92	89	15	123	92	116	4787
oct-21	1431	88	84	102	24	128	93	129	4706
TOTAL	**15992**	**751**	**782**	**71**	**134**	**1194**	**89,3**	**993**	**40318**

STAGES FOR THE APPLICATION OF A MET QUALITY MANAGEMENT SYSTEM

1- Achieve official approval from senior management

Section 5.1 of ISO 9001:2015 standard emphasizes the need for demonstrated commitment from top management. It is, indeed, a decisive first stage for the development and application of a QMS. That commitment must also involve a formal approval, which will be communicated to all staff.

Top management must ensure that funds are available to finance the QMS. The proposal for the development and implementation of the quality management system should be formally documented and include the proposed implementation strategy, a general schedule and the estimated budget for this purpose. It is recommended that the initial stages of development and implementation of the quality management system be included in the framework of a project.

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2- Select a professional in charge of quality

The appointment of a professional in charge of quality is a fundamental factor for the success of a quality management system. It is recommended to appoint a senior full-time staff member. In addition, it would be very helpful for the application process if the designated person knows the subject well.

This position will be the driving force of the quality management system and the fundamental reference for issues related to it. It is essential that the person appointed has a strong desire to face the challenges associated with the development and implementation of a quality management system and shows a strong interest in this regard: a forced appointment will probably, or even inevitably, undermine the quality management system and cause its failure.

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3- Select a professional instructor

It is highly recommended to interview several potential candidates to verify that they have the relevant knowledge and experience and to determine how they would fit into the organization's culture. It is important that they are accredited trainers and that they are prepared to offer an introductory course to all personnel involved in the quality management system .

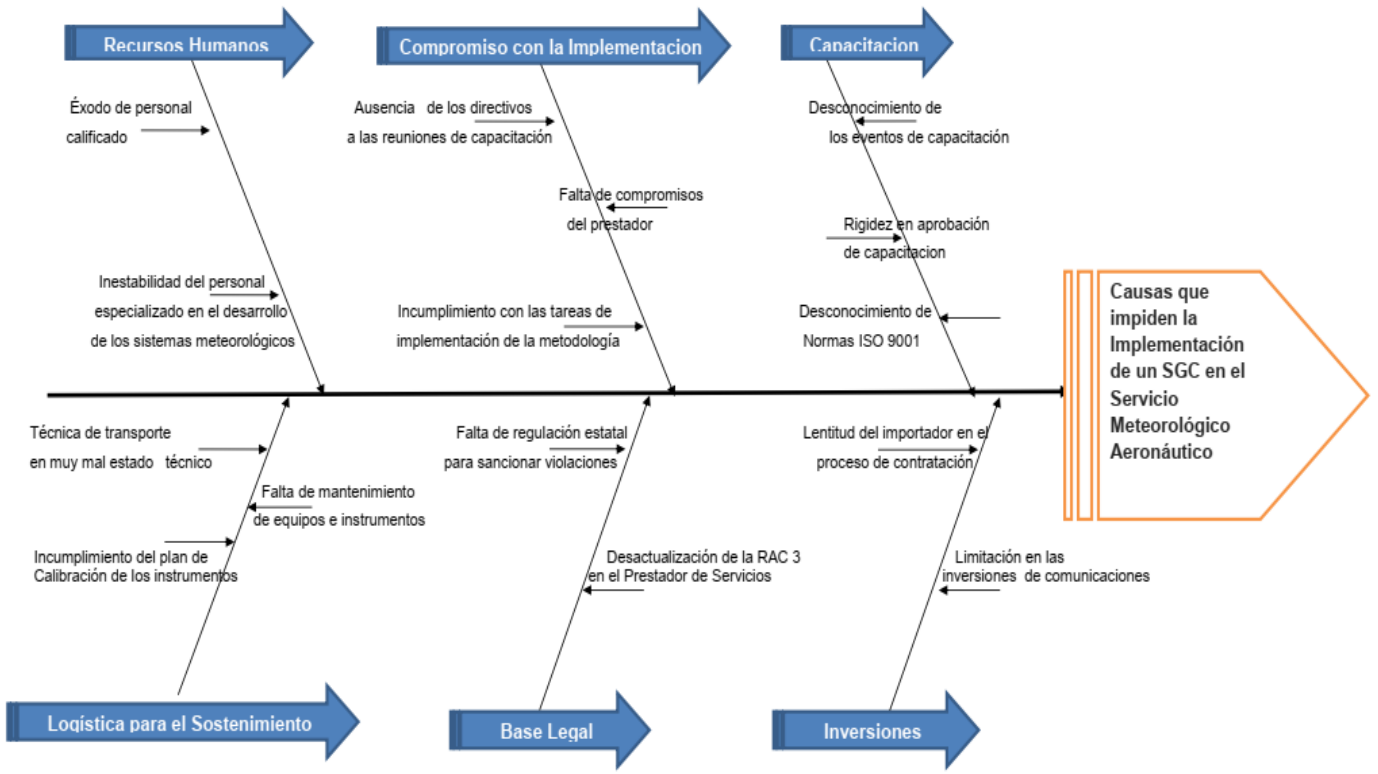
4 – Provide introductory training on quality management

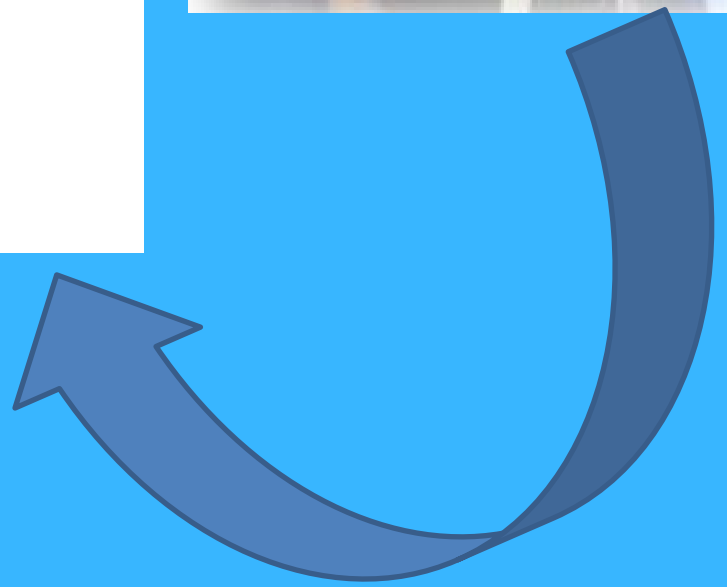
An introductory training session should be organized for all staff involved in the QMS, starting with the core quality management team and, especially, the president or CEO. A basic introductory ISO training course helps to ensure successful implementation of a quality management system by providing a good understanding of the principles and practices of the ISO 9001 standard.

5- Carry out a gap analysis

A gap analysis is a technique that aims to determine the steps required to move from the current status to a desired future status. In the case of quality management systems, gap analyses serve to clearly determine which sections of the ISO 9001 standard are not being fully complied with (or not being complied with at all) and to establish measures to correct the situation.

CAUSE-EFFECT DIAGRAM





6- Hold quality management review meetings at these stages

It is appropriate to organize quality management review meetings after internal or external audits in order to review the conclusions reached and arrange follow-up/corrective actions. Some organizations may also find it convenient to organize a quality management review meeting prior to an external surveillance or certification audit to determine which deficiencies can be resolved before the external audit(s) is/are carried out.

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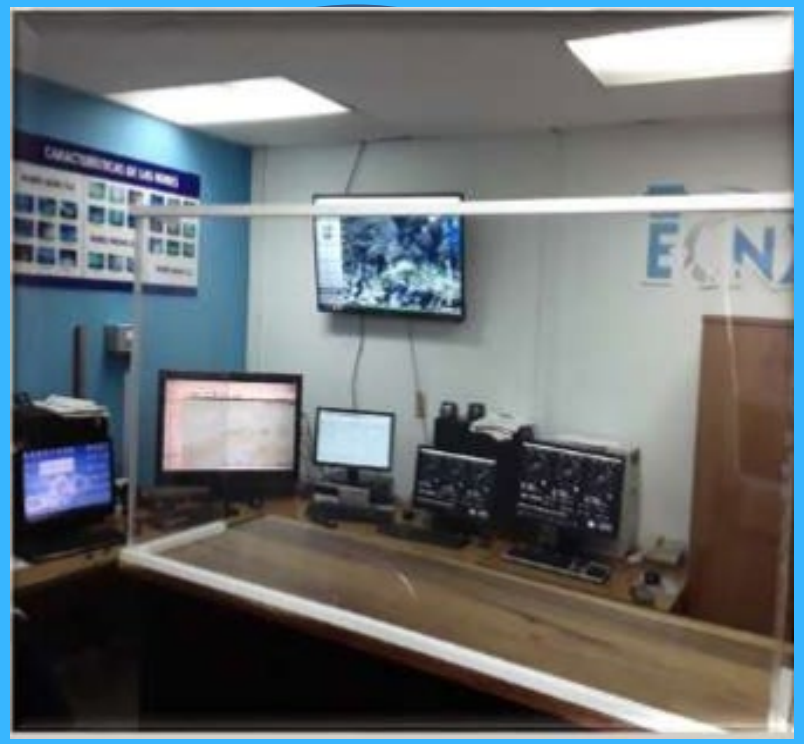
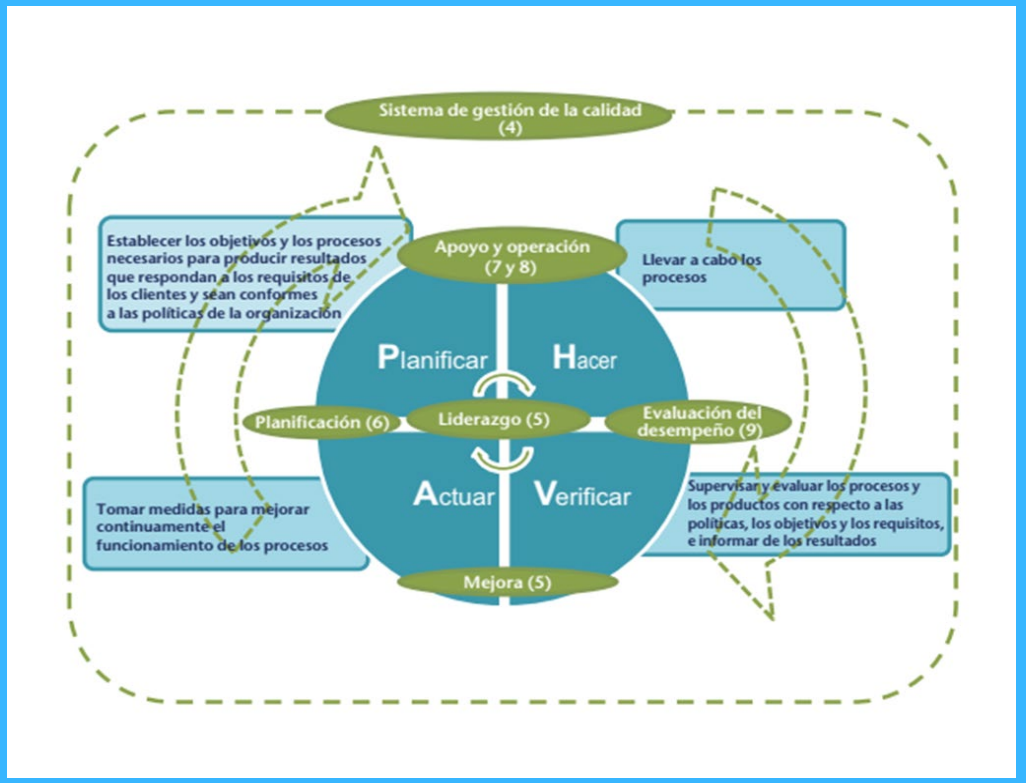
7- Initiate the work of rectifying the deficiencies detected

In rectifying identified deficiencies, priority will be given to the results of stage 5 (gap analysis) and the actions resulting from stage 6 (quality management review meetings).



8–Establish processes and develop procedures

The elaboration and drafting of the processes and procedures that are currently being carried out are fundamental components of any quality management system. It is imperative that they are developed in close consultation with the personnel who implement them as part of their duties. It may be appropriate to provide training on the drafting of procedures for personnel specifically responsible for QMS.



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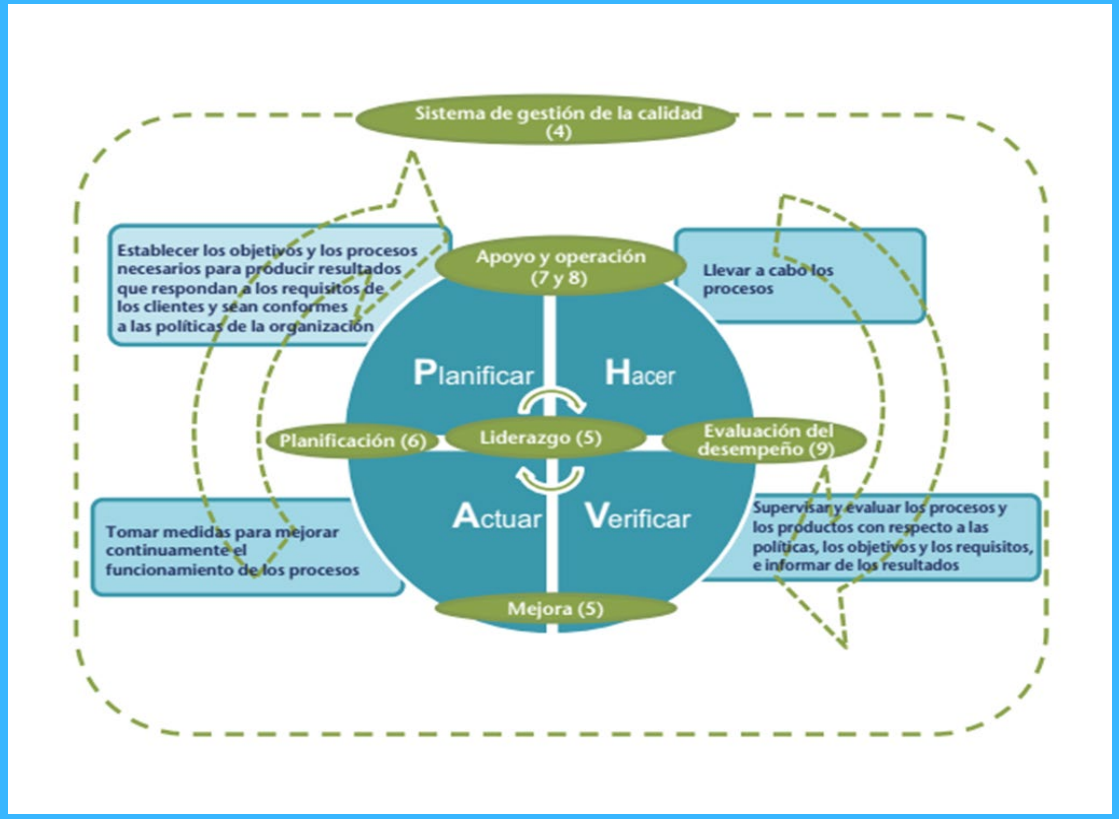
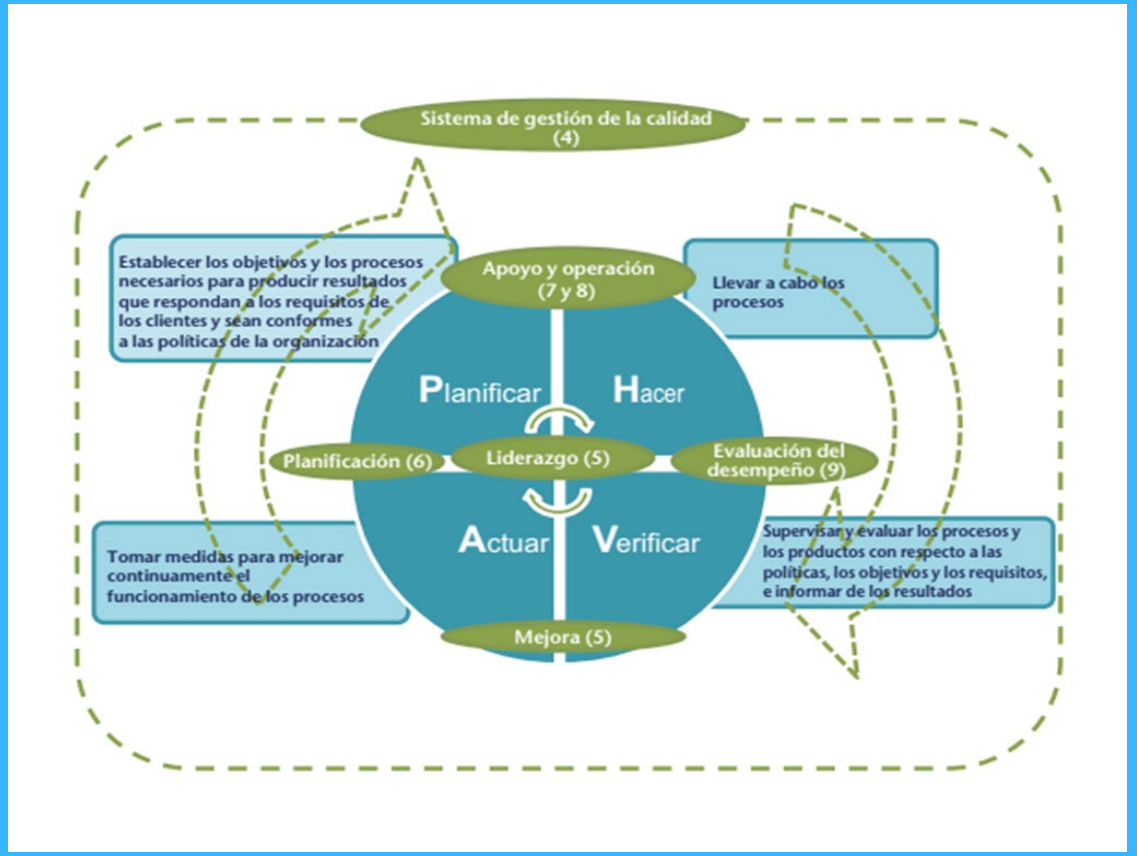
1.- INTERNAL DOCUMENTS APPLICABLE TO THE PROCESS.

The Aeronautical Meteorology Service process consists of:



Process Sheet (PS.05 Aeronautical Meteorology);
11 procedures and
2 technical instructions

PROCESS SHEET



1. OBJECTIVE OF THE PROCESS
2. DESCRIPTION OF THE PROCESS
3. RESOURCES
4. INTERRELATION WITH OTHER PROCESSES
5. RESPONSIBILITIES
6. METHODS TO ASSESS EFFECTIVENESS
7. ANNEXES

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PROCEDURES:

P.05-01 Development and preparation of charts and MET maps

P.05-02 Issuance of information on MET phenomena.

P.05-03 Preparation of MET forecasts for aviation.

P.05-04 MET database update and maintenance.

P.05-05 Aerodrome MET reports.

P.05-06 Preparation of aeronautical and meteorological information file.

	ELABORACION DE PRONÓSTICOS METEOROLÓGICOS PARA LA AVIACIÓN		
ECNA Empresa Cubana de Navegación Aérea	Código: P.05-03	Versión: 1	Página: 3 de 15

1. OBJETIVO

Definir el procedimiento a seguir para la elaboración de pronósticos meteorológicos aeronáuticos, como parte de las funciones del Servicio Meteorológico Aeronáutico para la navegación aérea dentro de la Región de Información de Vuelo (FIR) de la República de Cuba y sus aeródromos.

PROCEDURES:

P.05-07 Processing Air-report (AIREP) messages and special air notifications.

P.05-08 Preparation and dissemination of shear warnings.

P.05-09 Tropical cyclone watch.

P.05-10 Aeronautical climatology.

P.05-11 Evaluation of MET personnel competencies.

IT.05-01 Quality control and availability of Operational Meteorological (OPMET) information.

IT.05-02 Verification Control and/or Calibration of MET Instruments.

ECNA	EVALUACIÓN DE COMPETENCIAS DEL PERSONAL METEOROLÓGICO		
	Código: P.05-11	Versión: 0	Página: 28 de 29

Anexo 6: R-02(P.05-11) RESULTADO INDIVIDUAL DE EVALUACION DE COMPETENCIAS

ECNA	RESULTADO INDIVIDUAL DE EVALUACION DE COMPETENCIAS		
	Código: R-02(P.05-11)	Versión: 0	Página: 1 de 1

NOMBRE: _____

CARGO: _____

UEB: _____ Área de trabajo: _____

Herramienta de Evaluación de competencia aplicada: _____

_____

Fecha y hora de comienzo evaluación: _____ hora finalización: _____

Preguntas realizadas: _____

_____

_____

_____

Observaciones: _____

9 – Determine the degree of customer satisfaction

From the beginning, it is essential to create the appropriate tools to evaluate the degree of customer satisfaction in order to have a reference from which the improvement in the provision of services can be evaluated. The ISO 9001 standard states that there are several ways to measure the degree of customer satisfaction.

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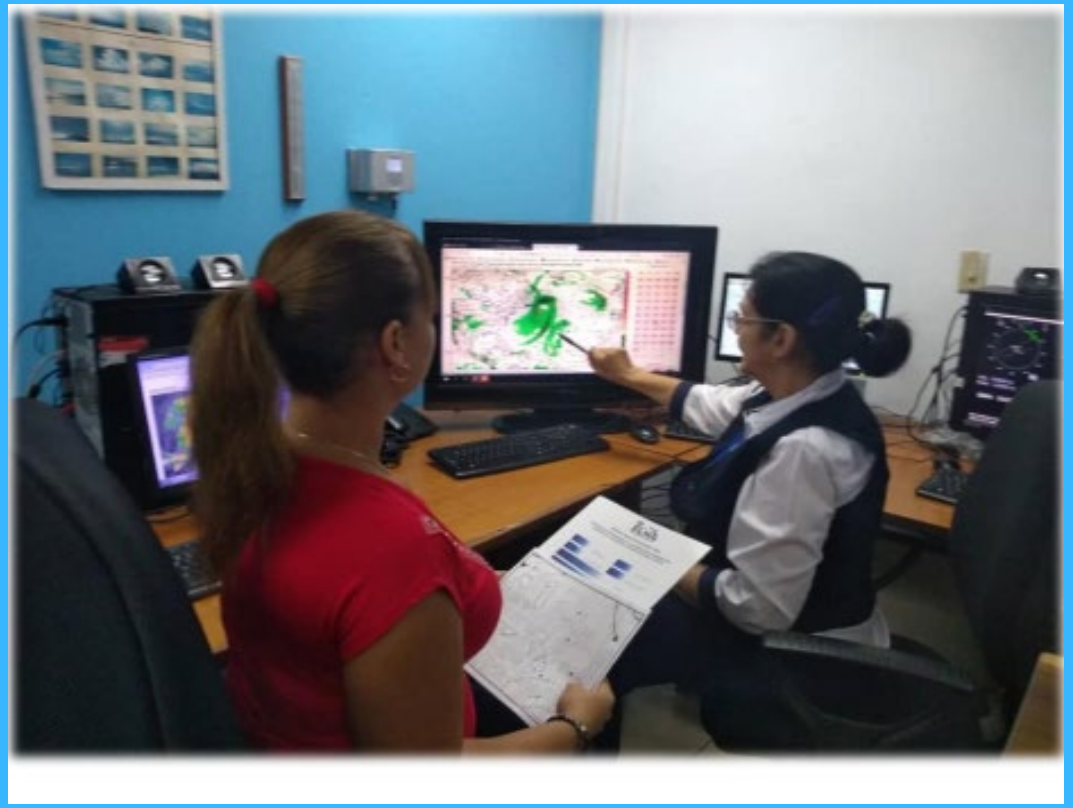
10 – Select and train the adequate employee or employees to assume the role of internal auditor

Those who swear as auditors should receive formal training from a registered training organization. It is imperative that the level of competency required of all internal auditors be maintained through a refresher course or, more importantly, through active participation in the audit program.



11- Conduct internal audits

Conducting an audit and developing a strong internal audit programme are other key components of a quality management system, including: audit scope, audit criteria, references, definitions, audit schedule, audit results, follow-up audits, corrective actions, audit documents, audit errors and management review.

	Guías de Inspección Dirección de Aeronavegación Instituto de la Aeronáutica Civil de Cuba		RG_DAN_10_01	
	Especialidad MET	Inspector:	Rev.:	2.0
Entidad Inspeccionada:				
Instalación: Estación de Observación MET combinada con ATS			Fecha:	

OBSERVACIONES E INFORMES METEOROLÓGICOS

No.	Aspectos a inspeccionar	Referencia a la base regulatoria	Nivel de Riesgo	Resultado	Observaciones/ Comentarios	Comprobación
DAN-03-01-01	Se cuenta con las Regulaciones vigentes debidamente actualizadas.	RAC 3 Capitulo III Sección Cuarta Artículo 24	N3	__ Satisfactorio __ No Satisfactorio __ No Aplicable __ No Verificable		Pueden estar solo en f digital, siempre que encuentren en ficheros acceso a todo el persona
DAN-03-01-02	Cumplimiento de los procedimientos establecidos en el Sistema de Gestión de la Calidad.	RAC 3 Capitulo II Sección Segunda Artículo 7	N3	__ Satisfactorio __ No Satisfactorio __ No Aplicable __ No Verificable		Pueden estar solo en f digital, siempre que encuentren en ficheros acceso a todo el persona
DAN-03-01-03	El personal cuenta con los requisitos de calificación para el personal MET establecido por la OMM.	RAC 3 Capitulo II Sección Primera Artículo 4	N4	__ Satisfactorio __ No Satisfactorio __ No Aplicable __ No Verificable		Revisar documentos acredita la calificación alcanzada por el persona
DAN-03-01-04	¿Cumple la estación de observación con el horario de trabajo publicado en la AIP de Cuba?	RAC 3 Capítulo IV Sección Primera Artículo 3	N3	__ Satisfactorio __ No Satisfactorio __ No Aplicable __ No Verificable		Revisar el Modelo M comprobar en la AIP el de trabajo de la estación

Eficacia del proceso

	OPVM	MUHA	MUVR	MUSC	MUCC	MUCM	MUHG	MUCU	Proceso
Enero	10	10	9	10	10	10	10	10	9,88
Febrero	10	10	10	10	10	10	9	10	9,88
Marzo	10	10	9	9	10	10	10	10	9,75
Abril	10	10	10	9	10	10	10	10	9,88
Mayo	10	10	9	10	10	10	10	10	9,88
Junio	10	10	10	10	10	10	10	10	10
Julio	10	10	10	10	10	10	10	10	10
Agosto	10	10	10	10	10	10	10	10	10
Septiembre	10	10	9	9	10	10	10	10	9,75
Octubre	10	10	10	10	10	10	10	10	10
Noviembre	10	10	10	10	10	10	10	10	10
Diciembre	10	10	10	10	10	10	10	10	10
Enero	10	10	10	9	10	10	10	10	9,88
Febrero	10	10	10	10	10	10	10	10	10
Marzo	10	10	10	10	9	10	10	10	9,88
Abril	10	10	10	10	9	10	10	10	9,88
Mayo	10	10	10	9	9	10	10	10	9,75
Junio	10	8	10	10	10	10	10	10	9,75
Julio	10	10	10	10	10	10	10	9	9,88
Agosto	10	10	10	10	10	10	9	10	9,88

12- Select a certification body to carry out the certification audit

In the case of the certification body (third party or external auditor), objectivity and impartiality are even more important. It is important to note that some of these organisations, in addition to providing consulting services, may offer their services as a third party certification body. This is totally inappropriate because it eliminates all impartiality and objectivity from the process and can lead to a conflict of interest.

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13 – Prepare and organize an external audit

Carry out the preparation process for an ISO 9001 certification audit by third parties.

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BUREAU VERITAS
Certification

Certification

Awarded to

EMPRESA CUBANA DE AEROPUERTOS Y SERVICIOS AERONAUTICOS. ECASA

Avenida Independencia Km. 15 ½, Boyeros. Ciudad Habana
Sitios.-Aeropuertos Internacionales: José Martí, Ciudad Habana; Vilo Acuña, Cayo Largo; Juan G. Gómez, Varadero; Jaime González, Cienfuegos; Abel Santamaría, Santa Clara; Jardines del Rey, Cayo Coco; Ignacio Agramonte, Camagüey; Frank País, Holguín; Antonio Maceo, Santiago de Cuba; Sierra Maestra, Manzanillo
CUBA

BVC certify that the Management System of the above organisation has been assessed and found to be in accordance with the requirements of the standard detailed below

STANDARD

ISO 9001:2008

SCOPE OF SUPPLY

SERVICIOS AERONAUTICOS, INGENIERIA DE AERODROMOS, COMERCIALES, OPERACIONES Y COMBUSTIBLE

Original approval date: OCTUBRE 20, 2004

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: JUNIO 23,2013

Further clarification regarding the scope of this certificate and the applicability of the Management System requirements may be obtained by consulting the organisation

Certificate Number: BR230039 *Date:* JUNIO 24, 2010

Managing Office:
BVC do Brasil Sociedade Certificadora Ltda
Praça Pio X, 15, 4º andar, 20040-020
Rio de Janeiro - RJ Brasil
Issuing Office:
BVC CUBA Calle 21 # 4 Vedado Ciudad Habana

BVC (Holding) SA operating as BVC do Brasil Sociedade Certificadora Ltda using UKAS accreditation covered by the accreditation certificate number 008

UKAS QUALITY MANAGEMENT
008

BUREAU VERITAS
Certification

Certification

Awarded to

EMPRESA CUBANA DE AEROPUERTOS Y SERVICIOS AERONAUTICOS. ECASA

Avenida Independencia Km. 15 ½, Boyeros. Ciudad Habana
Sitios.-Aeropuertos Internacionales: José Martí, Ciudad Habana; Vilo Acuña, Cayo Largo; Juan G. Gómez, Varadero; Jaime González, Cienfuegos; Abel Santamaría, Santa Clara; Jardines del Rey, Cayo Coco; Ignacio Agramonte, Camagüey; Frank País, Holguín; Antonio Maceo, Santiago de Cuba
CUBA

BVC certify that the Management System of the above organisation has been assessed and found to be in accordance with the requirements of the standard detailed below

STANDARD

ISO 9001:2000

SCOPE OF SUPPLY

SERVICIOS AERONAUTICOS, INGENIERIA DE AERODROMOS, COMERCIALES, OPERACIONES Y COMBUSTIBLE

AERONAUTIC, AIRDROME ENGINEERING, COMMERCIAL, OPERATIONS AND FUEL SERVICES

Original approval date: OCTOBER 20th, 2004

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: MAY 25th, 2010

Further clarification regarding the scope of this certificate and the applicability of the Management System requirements may be obtained by consulting the organisation

Certificate Number: 220447 *Date:* SEPTEMBER 27th, 2007

Managing Office:
BVC do Brasil Sociedade Certificadora Ltda
Praça Pio X, 15, 4º andar, 20040-020
Rio de Janeiro - RJ Brasil
Issuing Office:
BVC CUBA Calle 21 # 4 Vedado Ciudad Habana

BVC (Holding) SA operating as BVC do Brasil Sociedade Certificadora Ltda using UKAS accreditation covered by the accreditation certificate number 008

UKAS QUALITY MANAGEMENT
008

Instituto de Aeronáutica Civil de Cuba
IACC

14- Celebrate compliance certification

It is essential that certification to ISO 9001:2015 is duly recognized by senior management and celebrated by all personnel. In effect, it is a reward and recognition of the high quality of the products and services they provide. It is important to note that the certification of compliance constitutes an excellent reference against which to assess the organization's ongoing improvement.

Lloyd's Register

Fecha de Emisión Actual: 16 Octubre 2020
Fecha de Caducidad: 22 Octubre 2022
Número de Certificado: 10299537

Aprobaciones Originales:
ISO 9001 - 16 Octubre 2020

Certificado de Aprobación

Certificamos que el Sistema de Gestión de :

Empresa Cubana de Navegación Aérea, S.A.

Avenida Panamericana y Final. Edificio ATC Boyeros, Cuba

ha sido aprobado por Lloyd's Register de acuerdo con las siguientes normas:

ISO 9001:2015

Números de Aprobación: ISO 9001 – 00027315

Este certificado es válido sólo cuando va acompañado del anexo al certificado con el mismo número, en el que se detallan las delegaciones a las que se aplica esta aprobación.

El alcance de esta aprobación es aplicable a:
Servicios de navegación aérea en la región de información de vuelo asignada a la República de Cuba.

Daniel Oliva Marcilio de Souza

Area Operations Manager - South Europe

Emitido por: Lloyd's Register Quality Assurance España, S.L.U.

en nombre de: Lloyd's Register Quality Assurance Limited

UKAS MANAGEMENT SYSTEMS 001

Instituto de Aeronáutica Civil de Cuba
IACC

Lloyd's Register

Número de Certificado: 10299537

Anexo al Certificado

Ubicación	Actividades
UEB CCTA Avenida Panamericana y Final, Edificio ATC, Cuba	**ISO 9001:2015** Servicios de navegación aérea en la región de información de vuelo asignada a la República de Cuba.
UEB N.A. HABANA Carretera Panamericana y Final, Boyeros, Torre de Control, Cuba	**ISO 9001:2015** Servicios de navegación aérea en la región de información de vuelo asignada a la República de Cuba.
UEB N.A. Varadero Carretera Mártires de Barbado, km, 5/12, Matanzas, Cuba	**ISO 9001:2015** Servicios de navegación aérea en la región de información de vuelo asignada a la República de Cuba.
UEB N.A. Cayo Coco Aeropuerto Internacional Jardines del Rey, Carretera la Casasa, Cayo Cocos, Cuba	**ISO 9001:2015** Servicios de navegación aérea en la región de información de vuelo asignada a la República de Cuba.
UEB N.A. Santa Clara (SNU) Carretera a Maleza, km. 91/2 Aeropuerto Internacional Abel Santa Maria, Cuba	**ISO 9001:2015** Servicios de navegación aérea en la región de información de vuelo asignada a la República de Cuba.
UEB N.A. Camaguey Avenida Finlay, km. 7/12, Cuba	**ISO 9001:2015** Servicios de navegación aérea en la región de información de vuelo asignada a la República de Cuba.
UEB N.A. Holguin (HOG) Carretera Vía Bayamo, km. 1 11/2, Cuba	**ISO 9001:2015** Servicios de navegación aérea en la región de información de vuelo asignada a la República de Cuba.
UEB N.A. Santiago de Cuba (SCU) Carretera de Cuidamar, km, 2/12…s/n, Aeropuerto Internacional Antonio Maceo y Grajales, Cuba	**ISO 9001:2015** Servicios de navegación aérea en la región de información de vuelo asignada a la República de Cuba.

UKAS MANAGEMENT SYSTEMS 001

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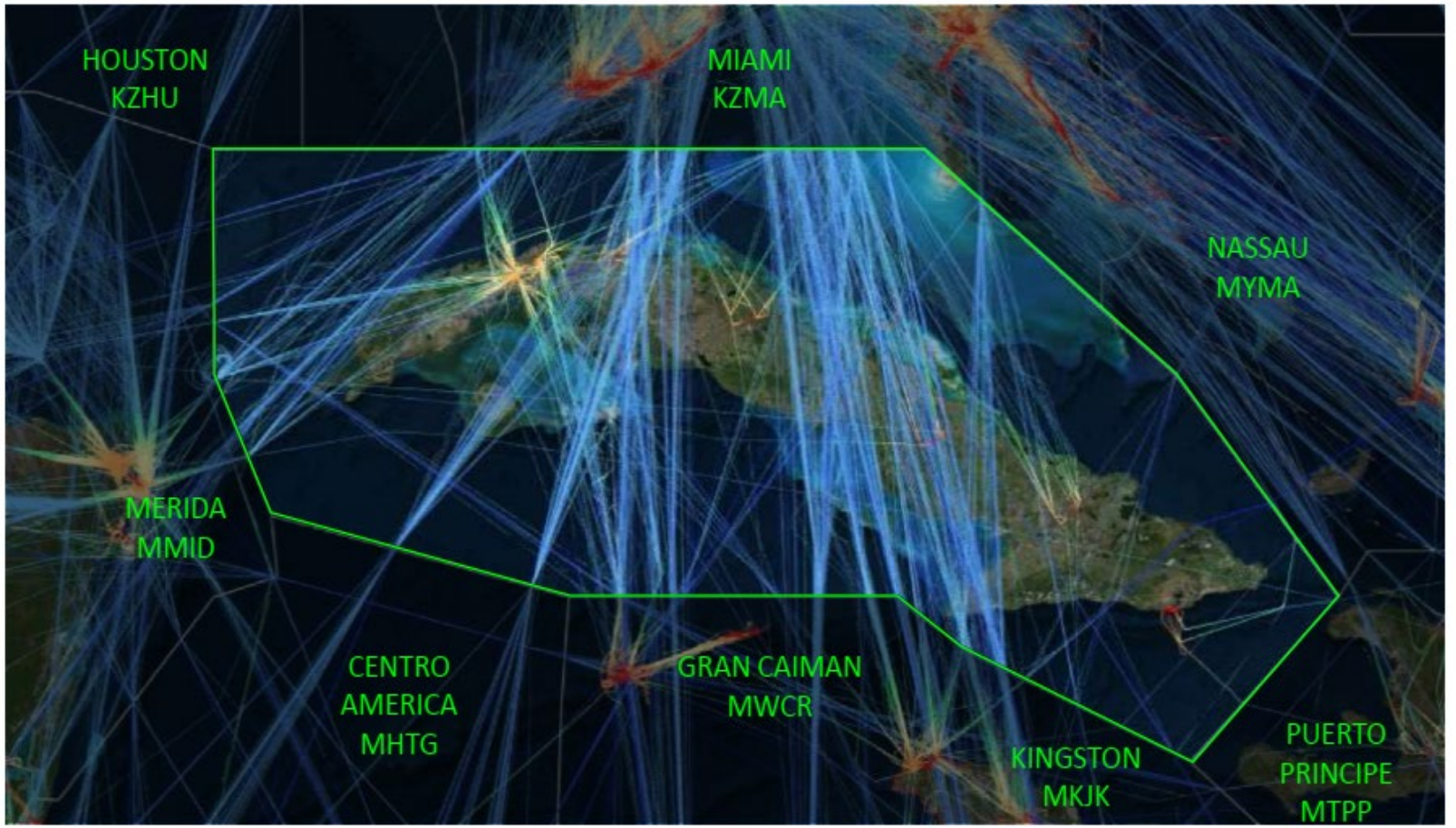

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THANK YOU