



SAM/AIM/12

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
SOUTH AMERICAN REGIONAL OFFICE**

**TWELFTH MULTILATERAL MEETING OF THE SAM
REGION FOR THE TRANSITION FROM AIS TO AIM
(SAM/AIM/12)**

FINAL REPORT

Lima, Peru, 3 to 7 June 2019

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HISTORY OF THE MEETING

ii-1 PLACE AND DURATION OF THE MEETING

The Twelfth Multilateral Meeting of the SAM Region for the Transition from AIS to AIM (SAM/AIM/12) was held in the premises of the ICAO South American Regional Office in Lima, Peru, on 3 to 7 June 2019.

ii-2 OPENING CEREMONY AND OTHER MATTERS

Mr. Fabio Rabbani, Regional Director of the ICAO South American Office, welcomed the participants, highlighting the importance of the objectives of the Meeting in relation to the follow-up to Phase 1 implementations and the alignment of the Region to the new standard procedures, the correct use of messages and documents of the aeronautical information services, and gaining knowledge of the new documents foreseen by the AIS Study Group. He also noted that changes to the ISO 9001 standard created a new landscape for the completion of Phase 1 of the roadmap. However, he expressed his conviction that this should not be an obstacle for the implementation of Phase 2, since the corresponding technology was already available and both tasks could be carried out in parallel.

Mr. Rabbani also noted that this Meeting would address issues related to e-TOD, AIXM, and e-AIP. In this regard, he welcomed the presence of industry representatives and invited the States to discuss and exchange ideas and options with them on industry solutions for these issues. He also underlined the importance of introducing States to the implementation of the extended management of information systems known as *SWIM*.

The Meeting wishes to acknowledge the industry (SLC and Avitech) for its contribution through presentations on e-TOD and the solutions offered for the implementation of Phase 2 of the Roadmap for the transition from AIS to AIM.

ii-3 SCHEDULE, ORGANISATION, WORKING METHODS, OFFICERS AND SECRETARIAT

The Meeting agreed to hold its sessions from 08:30 to 15:30 hours, with appropriate breaks. The Meeting agreed to work as a Single Committee and in Working Groups.

Mrs. Ivette Iturrado, Head of Safety Oversight – ANS of the Civil Aviation Authority of Panama, was unanimously elected to chair the Meeting.

Mr. Jorge Armoa Cañete, AIM/MET Regional Officer of the ICAO South American Regional Office, acted as Secretary.

ii-4 WORKING LANGUAGES

The working language of the Meeting was Spanish, with simultaneous interpretation into English. The documentation was presented in both languages.

ii-5 **AGENDA**

The following agenda was adopted:

Agenda Item 1: Global AIM strategy

Agenda Item 2: Implementation of the quality management system in AIM units (AIM/QMS)

Agenda Item 3: NOTAM contingency plans, AIM deficiencies and ICARD system

Agenda Item 4: Analysis of objectives, metrics and dates for the implementation of elements of B0-DAIM, B1-DAIM and B1-SWIM

Agenda Item 5: Follow-up to the implementation of the Amendment to Annex 15 – Aeronautical Information Services and PANS-AIM

Agenda Item 6: Follow-up to the conclusions of GREPECAS/18 and recommendations of the AN/CONF-13 related to AIM

Agenda Item 7: Implementation of systems for the exchange of aeronautical information and aeronautical data

Agenda Item 8: Other business

ii-6 **ATTENDANCE**

The Meeting was attended by 30 participants of 11 SAM States (Argentina, Bolivia, Brazil, Chile, Ecuador, Panama, Paraguay, Peru, Suriname, Uruguay, and Venezuela), 2 international organisations and 2 industry representatives.

The list of participants is shown on page iii-1.

ii-7 **LIST OF CONCLUSIONS**¹

No.	Title	Page
Conclusion SAM/AIM/12-01	AIM implementation strategy	1-2
Conclusion SAM/AIM/12-02	Follow-up to the recommendations of the AN/Conf-13 related to AIM	6-1

¹ The Conclusions are presented in the format requested by the Air Navigation Commission (ANC) in Working Paper 8993 (6/11/2015) Progress report of the ad hoc working group in PIRG and RASG reports (item No. 20036)

LISTA DE PARTICIPANTES / LIST OF PARTICIPANTS**LISTA DE PARTICIPANTES – INFORMACIÓN GENERAL**

NOMBRE/NAME TÍTULO/POSITION	DIRECCIÓN/ADDRESS DATOS/INFORMATION
ARGENTINA	
Silvia B. García Jefa Depto. AIS/COM	EANA S.E Buenos Aires, Argentina Tel: +54 9 11 2837 0127 E-mail: sgarcia@eana.com.ar
José Luis Carballo Ingeniero en Planificación	EANA S.E Buenos Aires, Argentina Tel: +54 9 11 260 459 0277 E-mail: jlcarballo@eana.com.ar
BOLIVIA	
Mirjan Michelle Mora Dávila Inspectora V Vigilancia AIS	Dirección General de Aeronáutica Civil - DGAC La Paz, Bolivia Tel: +591 2444450 Cel: +591 6813 5495 E-mail: mmora@dgac.gob.bo
BRASIL/BRAZIL	
Claudius Sany Soares Cardoso Jefe AIS	Departamento de Controle do Espaço Aéreo – DECEA Rio de Janeiro, Brasil Tel: +5521 21016339 E-mail: cardosocssc@decea.gov.br
Cristiane De Barros Pereira Jefe AIS	Departamento de Controle do Espaço Aéreo – DECEA Rio de Janeiro, Brasil Tel: +5521 986243102 E-mail: cristianecebp@decea.gov.br
Márcio Abel Marinho Supervisor NOF	Departamento de Controle do Espaço Aéreo – DECEA Rio de Janeiro, Brasil Tel: +5521 21016879 E-mail: marciomarinho75@gmail.com
Joao Cláudio Ximenes Brito Consultor	Departamento de Controle do Espaço Aéreo – DECEA Rio de Janeiro, Brasil Tel: +5521 2198 8972895 E-mail: ximenesjx@decea.gov.br
CHILE	
Pablo A. Pérez Especialista AIS	Dirección General de Aeronáutica Civil - DGAC Santiago de Chile, Chile Tel: +562 2290 4680 E-mail: pperezf@dgac.gob.cl

NOMBRE/NAME TÍTULO/POSITION	DIRECCIÓN/ADDRESS DATOS/INFORMATION
Nelson O. Aravena Especialista AIS	Dirección General de Aeronáutica Civil - DGAC Santiago de Chile, Chile Tel: +562 2290 4677 E-mail: naravena@dgac.gob.cl
ECUADOR	
Alexander Guncay Taco Coordinador Nacional AIS / Especialista AIS	Dirección General de Aviación Civil – DGAC Quito, Ecuador Tel: +593 2 2947400 +593 2 2947409 E-mail: alexander.guncay@aviacioncivil.gob.ec
PANAMÁ	
Dalys Rodriguez Valdes Jefa de la Sección NOTAM Internacional	Autoridad Aeronáutica Civil Panamá, República de Panamá Tel: +507 64062071 E-mail: dvaldesrodriguez@gmail.com ; drodriguez@ aeronautica.gob.pa
Gregorio Mesquita Jefe de la Sección de Cartas Aeronáuticas	Autoridad Aeronáutica Civil Panamá, República de Panamá Tel: +507 3159823 E-mail: gregorio.mesquita@aeronautica.gob.pa
Ivette Iturrado Jefa de Vigilancia Seguridad Operacional-ANS	Autoridad Aeronáutica Civil Panamá, República de Panamá Tel: +507 3159898 E-mail: ivette.iturrado@aeronautica.gob.pa
William Santamaría Inspector ANS AIS/MAP	Autoridad Aeronáutica Civil Panamá, República de Panamá Tel: +507 315 9847 E-mail: william.santamaria@aeronautica.gob.pa
PARAGUAY	
Antonio Insfran Mareco Jefe de Departamento Regulación AIS/AIM	Dirección Nacional de Aeronáutica Civil – DINAC Asunción, Paraguay Tel: +595 021 229 949 E-mail: antonio.insfran@gmail.com
Juan Felix Estigarribia Rolón Jefe Departamento CCAM-TEC	Dirección Nacional de Aeronáutica Civil – DINAC Asunción, Paraguay Tel: +595 217585293 / +595 971 627 227 E-mail: jfe2406@gmail.com
Lidia Cáceres Ocampos Jefe AIM – Proveedor de Servicios	Dirección Nacional de Aeronáutica Civil – DINAC Asunción, Paraguay Tel: +595 758 293 E-mail: aimpy@dinac.gov.py ; lidigca@hotmail.com

NOMBRE/NAME TÍTULO/POSITION	DIRECCIÓN/ADDRESS DATOS/INFORMATION
PERU	
Carlos Bohórquez Castellares Gerente Central de Navegación Aérea	Corporación Peruana de Aeropuertos y Aviación Comercial- CORPAC S.A. Av. Elmer Faucett 3400, Callao Tel: +51 230-1338 Email: cbohorquez@corpac.gob.pe
Sara Siles La Rosa Inspectora AIM / Coordinación Técnica de Navegación Aérea	Dirección General de Aeronáutica Civil - DGAC Jr. Zorritos 1203, Cercado de Lima Tel: 978598481 E-mail: ssiles@mtc.gob.pe
Karina Calderón Yactayo Especialista de Información Aeronáutica	Corporación Peruana de Aeropuertos y Aviación Comercial- CORPAC S.A. Av. Elmer Faucett 3400, Callao Tel: +511 230-1413 Email: kcalderon@corpac.gob.pe
Sergio Rojas Hidalgo AIS MAP	Corporación Peruana de Aeropuertos y Aviación Comercial- CORPAC S.A. Av. Elmer Faucett 3400, Callao Tel: +511 230-1410 Email: srojas@corpac.gob.pe
Mirtha Ángeles Reque Supervisor AIS-ARO	CORPAC S.A. Av. Elmer Faucett 3400, Callao Tel: 2301416 982 080 064 Email: mangeles@corpac.gob.pe ; polizonte2000@gmail.com
Miriam Gonzales Guerra Especialista AIS	CORPAC S.A. Av. Elmer Faucett 3400, Callao Tel: +51 1 230 1414 Cel: 999 727 042 Email: mgonzalez@corpac.gob.pe ; mjesusgonzales@gmail.com
SURINAM / SURINAME	
Djaising Ramsing AIS Officer	CADSUR Tel: +597 498 898 / +597 859 8500 Email: hot.gat@hotmail.com
Radjan Phalai ATM Specialist	CADSUR Tel: +597 850 1634 Email: radjanphalai@gmail.com
Kofi Orlando CNS Technician	CADSUR Tel: +597 8531 923 Email: oomken80@gmail.com ; oomken80@gmail.com

NOMBRE/NAME TÍTULO/POSITION	DIRECCIÓN/ADDRESS DATOS/INFORMATION
URUGUAY	
Graciela Monzillo Jefe AIS	Dirección Nacional de Aviación Civil e Infraestructura Aeronáutica – DINACIA Tel: +598 26040408 ext. 5101 E-mail: gmonzillo@dinacia.gub.uy gracielamonz@gmail.com
Gabriel Falco Director de Circulación Aérea	Dirección Nacional de Aviación Civil e Infraestructura Aeronáutica – DINACIA Tel: +598 98046848 E-mail: gfalco@dinacia.gub.uy
Mario Dávila Inspector de Navegación Aérea AIS/MAP	Dirección Nacional de Aviación Civil e Infraestructura Aeronáutica – DINACIA Tel: +598 26040408 ext. 4469 E-mail: mdavila@dinacia.gub.uy
VENEZUELA	
José Pacheco Coordinador del Área de Trabajo de Información Aeronáutica (AIS)	Instituto Nacional de Aeronáutica Civil – INAC Caracas Tel: +584 24 283 7793 E-mail: j.pacheco@inac.gob.ve
AVITECH GmbH (Indra Sistemas)	
Jose Ignacio Rodriguez Sales Manager y Project Manager LATAM Germany	AVITECH GmbH (Indra Sistemas) Tel: +49 (1) 7684761660 E-mail: jose.rodriguez@avitech.aero
IFAIMA	
Luis Fernando Cruz Albuquerque SAM Regional Director Lisboa, Portugal	Tel: +51 969 106 062 E-mail: luiscruza@ifaima.org
Iliana Sánchez Navarro Consultora para AIS y generación de datos electrónicos, eTods, AMDB para transición a AIM	Tel: +52 33 2066 5228 +52 33 1893 1186 E-mail: ilianasanchez.din@gmail.com
INDRA	
Andrés Agüero Muñoz Gerente de Sectores/Mercados Tráfico Aéreo, Defensa y Seguridad	Av. Jorge Basadre N° 233 San Isidro, Lima, Perú Tel: +51 1 488-8984 / Cel: 945 338 248 E-mail: ahaguero@indracompany.com

NOMBRE/NAME TÍTULO/POSITION	DIRECCIÓN/ADDRESS DATOS/INFORMATION
NGA.mil – National Geospatial-Intelligence Agency	
Daniel Ashton NGA International Aeronautical Liaison	3838 Vogel Road, Arnold, MD 63010, USD Tel: +1314 6761385 E-mail: daniel.j.ashton@nga.mil
SLC Associates Ltd.	
Stephen Card Director of Operations	Broadfields Court, Broadfields Retail Park, Bicester Road Aylesbury, Buckinghamshire HP19 8BU United Kingdom Tel: +44 1296 717500 Cel: +44 7768 764204 E-mail: stephen.card@etod.aero
Javier Rosell Ocaña Gerente SMS	Broadfields Court, Broadfields Retail Park, Bicester Road Aylesbury, Buckinghamshire HP19 8BU United Kingdom Tel: +44 7444 196 994 E-mail: javier.rosell@slcassociates.co.uk ; javierrosell2013@gmail.com
Oliver Bates Director of Compliance	Broadfields Court, Broadfields Retail Park, Bicester Road Aylesbury, Buckinghamshire HP19 8BU United Kingdom Tel: +44 7816 366 603 E-mail: oliver.bates@etoo.aero
OACI/ICAO	
Jorge Armoa Oficial Regional de Gestión de Información Aeronáutica y Meteorología Aeronáutica q1	Oficina Regional Sudamericana (SAM) Av. Víctor Andrés Belaúnde No.147 Centro Empresarial Real, Torre 4, Piso 4 San Isidro, Lima 27, Perú Tel: +511 611 8686 Fax: +511 611 8689 E-mail: jarmoa@icao.int Web: http://www.icao.int/SAM

Agenda Item 1: Global AIM Strategy

1.1 Under this agenda item, the Meeting reviewed the following paper:

- WP/02 – *Global AIM projects (presented by the Secretariat)*.
- Presentation on the Global AIM Implementation Strategy

1.2 When reviewing this item, the Meeting recalled that the transition from product-centred aeronautical information services (AIS) to a data-centred and service-oriented aeronautical information management (AIM) environment was essential, since it was becoming increasingly urgent to meet the requirements of a larger number of users and of an integrated and interoperable ATM system.

1.3 The Meeting took note that, according to data collected through the ICAO SAM Regional Office, States were taking several steps in this direction. Specific efforts were focusing on the implementation of the various steps of the ICAO Roadmap for the transition from AIS to AIM (Phase 1, 2, 3). However, several States had not yet fully implemented Phases 1 and 2. Furthermore, GREPECAS had identified that the fundamental standards of Annex 15 were not being implemented and were recorded as air navigation deficiencies.

1.4 The Meeting took note that ICAO, after noting that AIM stakeholders, including the CAAs, ANSPs and the industry, had identified many challenges, had decided to look into some of the most common problems in order to determine their origin, how they could be addressed in the future, and what could be done to support implementation. AIM stakeholders had noted with concern that a delay in the implementation of the electronic provision of aeronautical data and information could affect global initiatives such as PBN, ATFM, A-CDM, SWIM, among others.

1.5 The Meeting noted that ICAO had established the AIM-IS (AIM Implementation Strategy) group for the design of projects aimed at outlining a global AIM implementation strategy. The projects currently being implemented by the AIM-IS group are shown in Appendix A to this part of the report.

1.6 After reviewing the work done by the AIM-IS group, the Meeting recognised that the most important thing to comply with the Roadmap for the transition to AIS to AIM was to focus on implementation, which should be the priority. The Meeting urged States to raise awareness of the need to create a sound foundation, by improving the quality of existing products and services and then promote the migration to the digital formats.

1.7 The Meeting understood the urgent need to move forward in the implementation of AIM. However, that required an effective strategy for continuous planning and digitalisation. Work should be done in association with ICAO, the industry and all the stakeholders in order to develop new requirements to facilitate the integration of aeronautical information into SWIM.

1.8 After analysing the global AIM implementation strategy, the Meeting formulated the following conclusion:

CONCLUSION	
SAM/AIM/12-01 AIM implementation strategy	
<p>That States:</p> <p>a) Through national workshops, raise awareness among aeronautical authorities, air navigation service providers, and data originators that the implementation of AIM (aeronautical information management in an electronic environment) and aeronautical information and data sets are essential components of the Regional Air Navigation Plan and the GANP, together with the implementation of a global and interoperable air traffic management system;</p> <p>b) Conduct cost-benefit studies of the investment projects for AIM implementation, taking into account issues such as ATM improvements to be derived, and its impact on safety and the environment.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input checked="" type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Technical/Operational</p>
Why: To meet the implementations that require the management of aeronautical information in an electronic environment	
When: Immediately	Status: Adopted by SAM/AIM/12
Who: <input type="checkbox"/> Coordinators <input checked="" type="checkbox"/> States <input type="checkbox"/> ICAO Secretariat <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Users/Industry	

APPENDIX A

Global AIM Strategy Projects

Title: AIM awareness	
Description of the problem	There is lack of awareness in the global aeronautical community of the role and importance of quality aeronautical information and of the negative impact that erroneous information can have on flight safety and efficiency
Impact	Global priorities: PBN, A-CDM, ATFM, SWIM
Action Plan	<ul style="list-style-type: none"> • AIM roadmap • Guidance material for a target audience • Regional seminars / workshops geared to a target audience • Direct assistance to States (“Go-Teams”)
Metrics	Measurement implementation: <ul style="list-style-type: none"> •Number of States with an AIM regulatory framework / year •Number of States replacing paper with datasets •Number of States that have implemented training to create awareness on AIM in the AISP provider Measurements: <ul style="list-style-type: none"> •Number of States that have organised ICAO AIS/AIM workshops •Number of AIMs by stakeholder

Title: Training	
Description of the problem	Absence of a systemic and consistent approach to training and competence management to support AIM services. This may cause inefficient practices, inadequate quality standards, reduced productivity, and higher costs.
Impact	Inconsistent production, low-quality products, and low production rates
Action plan	<ul style="list-style-type: none"> • AIS / AIM training manual • Share-Point with best State practices (credential system, competence management, AIS / AIM training) • Go-Teams • Development of training / computer-based training requirements for AIS providers and State AIS authorities
Metrics	Measurement implementation:

	<ul style="list-style-type: none"> •Number of AISPs that are introducing a formal training and competence programme •Number of EFODs related to Annex 15 QMS on training requirements •Number of safety incidents attributable to AIS
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Title: Implementation of the quality and oversight management system	
Description of the problem	<ul style="list-style-type: none"> • At present, some AIS providers (AISP) do not apply or have not implemented a QMS. • Likewise, it is difficult for State authorities to monitor QMS implementation by the AISPs
Impact	<ul style="list-style-type: none"> • Configuration management issues, poor consistency checks: errors and inconsistencies in AI • Global priorities: PBN, A-CDM, ATFM, SWIM
Action plan	<ul style="list-style-type: none"> • Expansion of PANS-AIM procedures • QMS manual for AIM (web-based) • Share-Point with best State practices • Go -Teams / seminars / workshops
Metrics	<p>Measurement implementation:</p> <ul style="list-style-type: none"> • Number of States that have implemented QMS / year, based on USOAP results, regional reports

Title: Originators of aeronautical data	
Description of the problem	<p>There are several problems with the origination of aeronautical data and information:</p> <ul style="list-style-type: none"> • Originated data is not of the right quality • Ineffective communication between stakeholders • Lack of formal arrangements
Impact	<ul style="list-style-type: none"> • Quality is not consistent with the use to be given to information • Global priorities: PBN, A-CDM, ATFM, SWIM
Action plan	<ul style="list-style-type: none"> • The AIS manual is already under review regarding: <ul style="list-style-type: none"> Guidance on formal arrangements (SLA). Template for normal arrangements (SLA) Aeronautical data catalogue Roles and responsibilities • Additional work in the data catalogue
Metrics	<p>Measurement implementation:</p> <ul style="list-style-type: none"> • Number of formal agreements (SLA) established between data originators and the AISP / year

Title: Notices to AIRMEN (NOTAM)	
Description of the problem	<ul style="list-style-type: none"> • Pilots and flight planning units find it difficult to properly filter NOTAMs • The total number of NOTAMs issued per year has increased 2.4 times worldwide • The quality of NOTAM information is not always adequate • Filtering criteria are not enough to deal with modern operations (TBO).
Impact	<ul style="list-style-type: none"> • High impact on flight safety and efficiency • Global priorities: PBN, A-CDM, ATFM, SWIM
Action plan	<ul style="list-style-type: none"> • Seek long term solutions: develop a new concept for an information service (SWIM) • Coordination with communities of interest • Develop ICAO provisions • Regional implementation activities
Metrics	Qualitative: <ul style="list-style-type: none"> • Assessment of reports by aircraft operators and data providers

Title: AIM in SWIM	
Description of the problem	<ul style="list-style-type: none"> • Annex 15 and the PANS-AIM specify five categories of digital aeronautical datasets that must/should be provided, but do not indicate how these datasets are actually provided
Impact	<ul style="list-style-type: none"> • Proliferation of different ways of providing information, compromising interoperability • Impact on the vision of a global interoperable ATM system for all users
Action plan	<ul style="list-style-type: none"> • Define the minimum set of requirements for the provision of digital dataset services • Define the set of requirements for more advanced “query/response” digital data services • Define the set of requirements for “dynamic” updates of the digital data set service.
Metrics	Measurement implementation: <ul style="list-style-type: none"> • Number of State AIS services that provide digital datasets through a SWIM service

Title: AIM for UTM	
Description of the problem	The manufacturers of unmanned aircraft and the user community have experienced a fast expansion. With a limited airspace and a dense population, the need for a traffic management system that includes unmanned aircraft has become urgent. This system needs information and data to manage aircraft and drone operations.

<p>Impact</p>	
<p>Action plan</p>	<ul style="list-style-type: none"> • The UAS Advisory Group (UAS-AG) is addressing all UTM aspects within ICAO. • Coordinate with the UAS-AG to support AIM • Establish actions accordingly
<p>Metrics</p>	<p>XXX</p>

Agenda Item 2: Implementation of the quality management system in AIM units (AIM/QMS)

1.1 Under this agenda item, the Meeting reviewed the following paper:

- WP/03 – *GREPECAS Project G3* (presented by the Secretariat)
- Presentation on the AIM/QMS implementation process in Panama
- Presentation on the AIM/QMS implementation process in Uruguay
- Presentation on the AIM/QMS implementation process in Paraguay

1.2 Under this agenda item, the Meeting reviewed the status of implementation of the quality management system in AIM processes in the SAM Region.

1.3 The Meeting took note that, in addition to those States that had obtained the AIM/QMS certification under ISO 9001:2015 (Brazil, Paraguay, Chile, Panama, Peru) prior to the SAM/AIM/11 meeting, Uruguay has joined the list obtaining the AIM/QMS certification in late 2018.

1.4 The Meeting noted that Suriname, Guyana, Bolivia, Colombia, Venezuela and Ecuador had not yet completed AIM/QMS implementation.

1.5 In this regard, the States reported the following:

- Bolivia: The authority is working with the service provider (AASANA) in the implementation of AIM/QMS. AASANA has submitted an action plan in six stages, of which only two have been implemented. No major progress has been made, except for QMS training provided to two staff members.
- Colombia: No information available
- Ecuador: The implementation of the quality management system must be aligned with the requirements of the State, which applies different standards.
- Guyana: No progress reported
- Venezuela: Has two deliverables related to QMS implementation in AIM processes.
- Suriname: They are preparing the National Air Navigation Plan. In this context, they plan to implement the QMS in the AIM in the coming years.

1.6 Panama described the progress made in the implementation and certification of QMS in AIM processes. They explained the initial difficulties faced, noting that, by virtue of the commitment of the personnel and top management, they had been able to achieve the objective in 2018.

1.7 Uruguay, explained the entire process of QMS implementation in AIM processes through a demo, highlighting the identification of risks and opportunities, and presented the software they use for all the QMS processes applied to the AIM.

1.8 Paraguay also explained the work done towards the implementation and certification of QMS in AIM processes. It was noted that it had been a bottom-up process that had encountered some difficulties for securing the commitment of top management.

1.9 The Meeting acknowledged the contribution of these States and congratulated them for their achievements.

1.10 The Meeting urged those States that had not yet completed QMS implementation in AIM

to prepare an action plan to meet this requirement, taking into account the following aspects:

- Management factors, such as the lack of commitment by top management, lack of support, lack of common objectives in the organisation, inadequate knowledge of QMS, etc.
- Financial factors, such as limited staffing and financial resources, difficulties to meet policy requirements, etc.
- Human factors, such as difficulties for changing the mindset, lack of communication, lack of commitment, etc.
- Process factors: the deadline for the introduction of the QMS policy is too short, controversial interpretation of the policy, etc.

1.11 The Meeting requested that action plan include timeframes and milestones and asked the Secretariat for periodic follow-up thereof.

Agenda Item 3: NOTAM contingency plans, AIM deficiencies and ICARD system

3.1 Under this agenda item, the Meeting reviewed the following papers:

- WP/04 – *Follow-up to issues observed in the 5LNC module of the ICARD database* (presented by the Secretariat).
- WP/05 – *NOTAM contingency plans, AIM deficiencies and ICARD system* (presented by the Secretariat).

ICARD system

3.2 Under this agenda item, the Meeting discussed the problems related to the codes in the ICARD database, which showed duplication and other issues.

3.3 The Meeting took note of the problems identified in the ICARD database by an analysis conducted by the Secretariat, namely:

- a) a significant number of duplicated codes (including tripled and quadrupled codes);
- b) similar-sounding codes established in close proximity or on the same flight plan route;
- c) waypoints located in FIR boundaries have different coordinates in the AIPs of the States involved;
- d) similar-sounding codes located within 500 miles; and
- c) differences between the 5LNC data contained in the ICARD database and the data published in the national aeronautical information publications (AIPs).

3.4 The Meeting took note that the persistence of these deficiencies could cause safety issues and that attention should focus on an action plan to gradually solve these issues. The Meeting took note that this cannot be solved in the short term applying a gradual solution, as follows:

- a) By 2019: resolve 15% of the aforementioned issues
- b) By 2020: review and amend the AIP and other documents to resolve 40% of code-related issues
- c) By 2021: resolve 60% of code-related issues
- d) By 2022: resolve 80% of code-related issues

3.5 Brazil proposed cooperation agreements among States to minimise the impact of amending duplicated codes within the Region or with other Regions. Brazil considered that the replacement of one code could result in the amendment of 25 charts in one State while, in the other State, it might only impact one or two charts. States showed their willingness to coordinate so that the State suffering less impact would amend or replace the corresponding code.

3.6 The States expressed their commitment to working with the parties involved in order to solve problems related to ICARD codes within a reasonable period of time. To that end, they would draft a short- and medium- plan. The Secretariat would provide Excel templates containing the problematic codes that affected the States of the Region in order to design strategies for their resolution.

NOTAM contingency plans

3.7 The Meeting recalled that the SAM/AIM/11 meeting had updated the NOTAM contingency plans. On that occasion, the contingency plans between Paraguay and Chile and between Venezuela and Peru had been left pending.

3.8 In this regard, Paraguay reported that the agreement had been signed with Chile and that, as of the SAM/AIM/12 meeting, it could be officially added to the SAM catalogue of NOTAM contingency plans.

3.9 Venezuela informed that the agreement with Peru was awaiting the signature of the authorities. However, it would need to be reformulated due to changes in the authorities of INAC and of the Air Navigation Service of Venezuela.

3.10 The updated catalogue of NOTAM contingency plans is shown in **Appendix A** to this part of the report. **Appendix B** describes the status of implementation of NOTAM contingency plans.

AIM deficiencies

3.11 The Secretariat submitted the list of AIS/AIM deficiencies of States. The Meeting took note that no progress had been made in their resolution since the SAM/AIM/11 meeting.

3.12 Panama stated that some of the deficiencies that appeared as unresolved in the database had already been resolved.

3.13 The Secretariat explained that, sometimes, the database is not updated when accessed by State focal points, and recommended States to inform the Secretariat of the resolution of deficiencies so that they can be updated by the regional officer of the area involved.

3.14 The Secretariat recommended that action plans be revised to update the deadlines for the resolution of deficiencies and the action to be taken. The list of deficiencies is contained in **Appendix C** to this part of the report.

APÉNDICE / APPENDIX A

Catálogo de los Planes de Contingencia NOTAM de la Región SAM
Catalogue of NOTAM Contingency Plans in the SAM Region

Fecha: 07 de junio de 2019
Date: 07 June 2019

Estado/ State	Estado de respaldo/ Backup State	Situación / Status		Punto de Contacto/ Contact Point	Descripción general de facilidades y servicios que garantizan la continuidad / General description of facilities and services available which ensure continuity	Banco NOTAM NOTAM Bank
		Borrador/ Draft	Final			
1	2	3	4	5	6	7
Argentina	Uruguay		X	NOF Ezeiza Tel: 541 4480 2294 Fax: 541 4480 2260 Email: nofezeiza@anac.gob.ar NOF Montevideo Tel: 5982 6040067 Email: ais@adinet.com.uy	AFS, Tel/Fax, REDDIG, Internet	AMHS
Bolivia	Perú		X	NOF La Paz Tel: 5912 2316686 Email : ais@asana.bo NOF Lima Tel: 511 2301288 –2301172 – 51 978471875 Email: fvasquez@corpac.gob.pe nofperu@corpac.gob.pe aislima@corpac.gob.pe	AFS, Tel, REDDIG, Internet	
Brasil/Brazil				NOF Brasil Tel/Fax: 5521 21016976 Email: nofbrazil@decea.gov.br	Tel, Fax, Internet	SISNOTAM

Estado/ State	Estado de respaldo/ Backup State	Situación / Status		Punto de Contacto/ Contact Point	Descripción general de facilidades y servicios que garantizan la continuidad / General description of facilities and services available which ensure continuity	Banco NOTAM NOTAM Bank
		Borrador/ Draft	Final			
1	2	3	4	5	6	7
Chile	Ecuador		X	NOF Chile Tel: 562 28364033 Email: nofchile@dgac.gob.cl NOF Guayaquil Tel: 5934 2285661 – 5934 2282017 Email: nof_ecuador@dgac.gob.ec	AFS, Tel/Fax, REDDIG, Internet	IAT-WIN
Colombia				NOF Bogotá Tel: 571 2962991 Email: ais@aerocivil.gov.co ; solicitudes.notam@aerocivil.gov.co		Actual Banco Web / Current Web Bank AMHS
Ecuador	Chile		X	NOF Guayaquil Tel: 5934 2285661 – 5934 2282017 Email: nof_ecuador@dgac.gob.ec NOF Chile Tel: 562 28364033 Email: nofchile@dgac.gob.cl	AFS, Tel/Fax, REDDIG, Internet	IAT-WIN
Guyana	Suriname		X	NOF Guyana Telefax: 592 2612279 Tel: 592 2612269 AFS: SYCJYNYX Cable: TIMAIRPORT GUYANA Email: aisguyana@gcaa-gy.org NOF Suriname Tel: 597 0325103 Email: ais.sur@hotmail.com ais@cadsur.sr	AFS, Tel/Fax, REDDIG, Internet	AMHS

Estado/ State	Estado de respaldo/ Backup State	Situación / Status		Punto de Contacto/ Contact Point	Descripción general de facilidades y servicios que garantizan la continuidad / General description of facilities and services available which ensure continuity	Banco NOTAM NOTAM Bank
		Borrador/ Draft	Final			
1	2	3	4	5	6	7
Guyana Francesa/ French Guiana						
Panamá	Perú		X	NOF Panamá Tel: 2382 6152616 Email: ais@aeronautica.gob.pa NOF Lima Tel: 511 2301288 – 2301172 Email: fvasquez@corpac.gob.pe nofperu@corpac.gob.pe	AFS, Tel/Fax, REDDIG, Internet	AMHS AMHS
Paraguay	Chile		X	NOF Asunción Tel: 59521 645952 Email: aisnof_ad@dinac.gov.py NOF Chile Tel: 562 28364033 Email: nofchile@dgac.gob.cl	AFS, Tel/Fax, REDDIG, Internet AFS, Tel/Fax, REDDIG, Internet	AMHS IAT-WIN
Perú	Bolivia		X	NOF Lima Tel: 511 2301288 – 2301172 – 51 978471875 Email: fvasquez@corpac.gob.pe nofperu@corpac.gob.pe aislima@corpac.gob.pe NOF La Paz Tel: 5912 2316686 Email: ais@aasana.bo		AMHS

Estado/ State	Estado de respaldo/ Backup State	Situación / Status		Punto de Contacto/ Contact Point	Descripción general de facilidades y servicios que garantizan la continuidad / General description of facilities and services available which ensure continuity	Banco NOTAM NOTAM Bank
		Borrador/ Draft	Final			
1	2	3	4	5	6	7
Suriname	Guyana		X	<p>NOF Suriname Tel: 597 0325103 Email: ais.sur@hotmail.com ais@cadsur.sr</p> <p>NOF Guyana Telefax: 592 2612279 Tel: 592 2612269 AFS: SYCJYNYX Cable: TIMAIRPORT GUYANA Email: aisguyana@gcaa-gy.org</p>	AFS, Tel/Fax, REDDIG, Internet	AMHS
Uruguay	Argentina		X	<p>NOF Montevideo Tel: 5982 6040067 Email: ais@adinet.com.uy</p> <p>NOF Ezeiza Tel 5414 480 2294 Fax 5414 480 2260 Email: nofezeiza@anac.gob.ar</p>	AFS, Tel/Fax, REDDIG, Internet	AMHS
Venezuela	Perú	X		<p>NOF Lima Tel: 511 2301288 – 2301172 – 51 978471875 Email: fvasquez@corpac.gob.pe nofperu@corpac.gob.pe aislima@corpac.gob.pe</p>		

Nota/Note:

- Columna 1: Indicar Estado, Territorio u Organismo Internacional / *Indicate State, Territory or International Organization.*
- Columna 2: Indicar Estado, Territorio u Organismo Internacional con quien debe coordinarse el Plan de Contingencia del Estado citado en la Columna 1 / *Indicate State, Territory or International Organization with whom the Contingency Plan of the State mentioned in Column 1 should be coordinated.*
- Columna 3: Marcar con X en el caso que el Plan de Contingencia se encuentre en proceso para su armonización con el Estado en cuestión / *Mark with an X in case the Contingency Plan is in process for its harmonization with the referred State.*
- Columna 4: Marcar con X en el caso que el Plan de Contingencia se encuentre armonizado con el Estado en cuestión / *Mark with an X in case the Contingency Plan is in process for its harmonization with the referred State.*
- Columna 5: Indicar cargo del Punto de Contacto y medio de comunicación a utilizar en caso de ser necesario / *Indicate position of the Point of Contact and communications means to be used, if necessary.*
- Columna 6: Indicar cuáles son, en general, las facilidades y los servicios disponibles mientras el Plan de Contingencia se encuentra activado / *Indicate which are, in general, the facilities available services while the Contingency Plan is activated.*
- Columna 7: Banco NOTAM / *NOTAM Bank.*

APÉNDICE / APPENDIX B

ESTADO DE IMPLANTACIÓN DE PLANES DE CONTINGENCIA NOTAM EN LA REGIÓN SAM STATUS OF IMPLEMENTATION OF CONTINGENCY NOTAM PLANS IN THE SAM REGION			
PLANES EN GESTIÓN ONGOING PLANS	PLANES VIGENTES VALID PLANS	ESTADOS NO INICIADOS STATES WHICH HAVE NOT INITIATED	BANCO NOTAM NOTAM BANK
	ARGENTINA/URUGUAY		AMHS
		BRASIL/BRAZIL	SISNOTAM
	BOLIVIA/PERU		AMHS
	PERU/PANAMA		AMHS
		COLOMBIA	ACTUAL BANCO WEB CURRENT WEB BANK AMHS Sep/2010
	CHILE/ECUADOR		IAT-WIN
	ECUADOR/CHILE		AMHS
	GUYANA/SURINAME		AMHS
	SURINAME/GUYANA		AMHS
	PARAGUAY/CHILE		AMHS
	PANAMÁ/PERU		AMHS
	PERU/BOLIVIA		AMHS.
	URUGUAY/ARGENTINA		SISNOTAM
VENEZUELA			

Fecha de actualización: 07 Junio 2019

Updating date: 01 June 2019

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
ARG Argentina										
AIS	15 SAM ICAO Annex 4; Para. 2.18.2.2 y Annex 15, Para. 1.2.2.4	Argentina	Publication of the geoid undulation as it is required.		SAM RO records.	A	# Action Plan (2006) indicated that relevant action is being taken on the matter. Implementation 70%	Indicated State		Completion date: TBD
AIS	35 SAM Annex 15; 1.3.1 English language	Argentina	Complete AIP in English language		SAM RO Records.	A	1. Action Plan (2006) indicated that relevant action is being taken on the matter. NOTAM impl. 100%; AIP 30%	Indicated State.	AUG/ 2015	2008: Requirement of English language experts translator personnel requirement, in order to comply with deadlines.
AIS	60 SAM Annex 4, 17; Cap. 17.1. VFR aeronautical chart (Scale, 1:500,000)	Argentina	Need for production of this serie of ICAO chart under the WGS-84 system to satisfy the lack of production of the WAC aeronautical chart.		SAM Office records.	B	It is indicated in action plan (2005) that implementation of this requirement is under progress. 20% advance.	Indicated State.	DEC/ 2013	2008: As expressed in the last action plan, the implementation of this requirement is in progress. An analysis of distribution of sheets was made, and the results were that in order to cover in chart scale 1:500.000 Argentina needs 40 sheets, two were produced and the third one is in advanced phase. Percentage made 6%
AIS	95 SAM Annex 4, Chap 13, Para 13.6.1 C). Aerodrome/Heliport Chart - ICAO.	Argentina	Need for the inclusion of geoid undulation in the Aerodrome/Heliport Chart - ICAO.		SAM OfficeRecords.	A	Action Plan (2006) 90% implemented. Geoidal undulation data published in the AIP for all airports.	Indicated State	NOV/ 2008	In AMD 03/08 it is expected that this data will be included in aerodrome/helicopter ICAO Type charts.
AIS	162 SAM Annex 15, Para. 3.7.1 Implementation of Quality system (QS) at the AIS	Argentina	It is required the implementation of a quality system (QS); as well as, of the quality assurance and quality control procedures at the AIS/MAP services.		Relevant Documented Procedures developed by SAM/AIM Group and GREPECAS Project according to ISO 9001:2008.	A	It is indicated in the action Plan (2006) that relevant actions on the matter, are being taken as required. Internal auditories are carried out at the AIS.	Indicated State	DEC/ 2015	SAMIG/13 Completion date expected Sep. 2014
AIS	236 SAM ICAO Annex 15, Chapter 10, 10.1	Argentina	Need to provide electronic terrain data is required	DEC/ 2015	SAM RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 237 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.	Argentina	Need to provide the obstacle Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 238 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.	Argentina	Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015	SAM/RO records.	A				
AIS 239 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Argentina	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records	A				
AIS 240 SAM	ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.	Argentina	Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation	DEC/ 2015	SAM/RO records	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
BOL Bolivia										
AIS 36	SAM Annex 15; Cap 1 para. 1.3.1 English language	Bolivia	Requirement to use English for plain language texts in AIS publications		SAM RO Records. 70% Implemented. Information given in SAM/AIM/6 Meeting Full Implementation December 2015 NOTAM Bilingual publishing	A	Action Plan (2006) AIS staff is under training 20% implemented	AASANA	DEC/ 2011	15 Jul 2010: Through Note DNA439/MET020/10 DGAC-0-1-1519 information was received regarding date of compliance, December 2011. Through Note DNA-0529/11 DGAC-012987/2011 information was received regarding date of compliance, December 2011.
AIS 52	SAM Annex 4, 17; Cap. 17.1 VFR aeronautical chart (Scale, 1:500,000)	Bolivia	Need for production of this serie of ICAO chart under the WGS-84 system to satisfy the lack of production of the WAC aeronautical chart.		SAM Office records. Charts are Produced but not published yet.	B	Action Plan (2006)	Indicated State.		15 Jul 2010: Through Note DNA439/MET020/10 DGAC-0-1-1519 and Note DNA-0529/11 DGAC-012987/2011 information was received that chart 1:500,000 will not be published.

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 163 SAM	Annex 15, Para. 3.7.1 Implementation of Quality system (QS) at the AIS	Bolivia	It is required the implementation of a quality system (QS); as well as, of the quality assurance and quality control procedures at the AIS/MAP services.		Relevant technical documentation has been prepared by the SAM/AIM group to assist the SAM States to achieve this objective Bolivia Informed there is not an Official Plan. SAM/AIM/6	A	I action Plan (2006) working are being carried out on the matter.	AASANA	DEC/ 2011	15 Jul 2010: Through Note DNA439/MET020/10 DGAC-0-1-1519 information was received that date of compliance is December 2011. To date 10% implemented. Through Note DNA-0529/11 DGAC-012987/2011 information was received regarding date of compliance, December 2011. SAMIG/13 was informed estimated date of implementation July 2015
AIS 241 SAM	ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.	Bolivia	Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 242 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Bolivia	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.	A				
AIS 243 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.	Bolivia	Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015	SAM/RO records.	A				
AIS 244 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.	Bolivia	Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
BRA Brasil										
AIS	246 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.	Brasil	Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015	SAM/RO records.		A		
AIS	247 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Brasil	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.		A		

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
CHL Chile										
AIS 248 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.		Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 249 SAM						A				
AIS 250 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.		Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 251 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.	Chile	Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015	SAM/RO records.	A				
AIS 252 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Chile	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 253 SAM	ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.	Chile	Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
COL Colombia										
AIS 166 SAM	Annex 15, Para. 3.7.1 Implementation of Quality system (QS) at the AIS	Colombia	It is required the implementation of a quality system (QS); as well as, of the quality assurance and quality control procedures at the AIS/MAP services.		Relevant technical documentation and rules has been prepared by SAM/AIM Group in order to assist the SAM States to achieve this objective	A	Action Plan 2006. 30% implemented. 60% was implemented through the application of process management system (GP 1000) corresponding to the quality assurance systems.	Indicated State	JAN/ 2010	
AIS 182 SAM	ANNEX 15; Chap 3, 3.3.3 and 3.5.2 Integrity of aeronautical information/data.	Colombia	Need that quality control (QC) system be implemented by the States, to ensure the required level of integrity of the aeronautical information/data issued and/or available. Application of cyclic redundancy check (CRC).		Registro Oficina SAM	A	Action Plan (2006) action is being taken on the matter. Requirements for aeronautical data integrity are included in RAC-15. Up to 2009 AIS counts with an automated system to manage information.	Indicated States	JAN/ 2012	
AIS 254 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.	Colombia	Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 255 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.	Colombia	Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015		A				
AIS 256 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Colombia	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 257 SAM	ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.	Colombia	Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
ECU Ecuador										
AIS 232 SAM	Annex 15; 1.3.1. English language	Ecuador	Requirement to use English for plain language texts in AIP publications		SAM RO Records.. Ecuador informed SAM/AIM/6 Meeting Implementation date August 2015	A	Action plan 2005. 50% implemented.		Indicated State.	
AIS 258 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1		Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 259 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.	Ecuador	Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015	SAM/RO records.	A				
AIS 260 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Ecuador	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 261 SAM	ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.	Ecuador	Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation	DEC/ 2015	SAM/RO records.	A				
AIS 290 SAM	ICAO Annex 15, Chapter 3, 3.7.1 Quality Magnagement System	Ecuador	Requirement to implement and maintain a quality management system that covers all the functions of AIS	OCT/ 2016	Ecuador implemented a quality management system for the AIS functions but in 2016 it has not re-certified the System Implementation, not complying with the maintenance of the same	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
GUY Guyana										
AIS	54 SAM Annex 4, 17; Cap. 17.1. VFR aeronautical chart (Scale, 1:500,000)	Guyana	Need for production of this serie of ICAO chart under the WGS-84 system to satisfy the lack of production of the WAC aeronautical chart.		SAM Office records.	B	Action plan (2004) required actions should be taken. 1/1000,000 WAC sectional for SYGC by July 2019	Indicated State.		
AIS	70 SAM ICAO Annex 4, Chapter 11; 11.7.2 and 11.10.6.5. Instrumens approach charts.	Guyana	Need to complete the inclusion of the topographic (11.7.2), and the ground profile informations (11.10.6.5) in the production of all instrument approach charts - OACL.		SAM Office records.	A	Action plan (2004. 50% implemented.	Indicated State		
AIS	105 SAM ICAO Annex 4, Chapter 7;Par. 7.6.2 Enroute Navigation Charts - ICAO.	Guyana	Need to produce and include in the AIP the Enroute Charts - ICAO, also including the required Area Minimum Altitude (AMA) in such serie of charts.		SAM Office records	A	Action plan 2004. 50% implemented. Guyana AIP ENR 6-1. To add AMA for off airway. Next AMDT- Apr.25 2019. Currently, 90 % implemented	Indicated State	OCT/ 2019	
AIS	134 SAM Annex 4, Chap 13, Para 13.6.1 C). Aerodrome/Heliport Chart - ICAO.	Guyana	Requirement to effectively satisfy the specification on the inclusion of geoid undulation in the Aerodrome/Heliport Chart - ICAO.		Records SAM Office.Email Guyana 29/june/2011 Next Chart production will include this estándar	A	Action Plan 2004 50% implemented. 90% Completed. To insert geoid undulation information on AD Chart. Next AIP AMDT Apr.25 2019.	Indicated State	2012	It is planned to implement in the next chart in 2012
AIS	169 SAM Annex 15, Para. 3.2 Implementation of Quality system (QS) at the AIS	Guyana	It is required the implementation of a quality system (QS); as well as, of the quality assurance and quality control procedures at the AIS/MAP services.		Relevant technical documentation and rules has been developed by the GREPECAS AIS/MAP Subgroup, in order to assist the CAR/SAM States to achieve this objective.	A	Action plan 2004 action should be taken as required QMS Manual developed for AIS/MAP-Oct. 2018 To be approved and implemented in May 2019	Indicated State	2012	QMS to be developed by 2012 Email Guyana 29/june/2011
AIS	185 SAM ANNEX 15; Chap 3, 3.2.8, and 3.2.10 Integrity of aeronautical information/data.	Guyana	Need that quality control (QC) system be implemented by the States, to ensure the required level of integrity of the aeronautical information/data issued and/or available. Application of cyclic redundancy check (CRC).		Email Guyana 29/june/2011 Pending tyhe implementation of QMS-AIS	A	Action plan 2004 action should be taken as required QMS Manual developed for AIS/MAP-Oct. 2018 To be approved and implemented in May 2019	Indicated States	2012	pending the implementation of QMS Email Guyana 29/june/2011

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 225 SAM	CAR-SAM ANP Part VIII (AIS); Para. 65, 66, 67, 68 AND 69. Regional AIS automated system	Guyana	Requirement for implementation of automated system at the AIS services, in agreement with the indicated in the CAR/SAM Air Navigation Plan.		Records SAM Office. Email Guyana 29/june/2011 40% completed. Studies has to be done to determine needs and develop a roadmap	A	Action Plan 2004 20% implemented. To implement automated AIS Systems with new AIXM Software. Acquisition of system in progress. Probably for August, 2019	Indicated State	2014	40% completed. Studies has to be done to determine needs and develop a road map
AIS 262 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.		Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 263 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.	Guyana	Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015	SAM/RO records.	A				
AIS 264 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Guyana	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 265 SAM	ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.	Guyana	Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
PAN Panama										
AIS 77 SAM	ICAO Annex 4, Chapter 3. Aerodrome Obstacle Chart - ICAO, Type A.	Panama	Need for effective production of Aerodrome Obstacle Chart - ICAO, Type A., concerning the following airport: Enrique Malek y Bocas del Toro..		SAM Office records.	A	Action plan 2006	Indicated State	Will be completed during 2007.	
AIS 266 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.	Panama	Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 267 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.	Panama	Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015	SAM/RO records.	A				
AIS 268 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Panama	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 269 SAM	ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.	Panama	Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
PER Peru										
AIS 39 SAM	Annex 15; 3.6.1 English language	Peru	Requirement to use English for AIP.	JUL/ 2008	SAM RO Records. Implementation is expected December 2015	A	Action Plan (2006) 15%implemented.	Indicated State.	DEC/ 2015	
AIS 78 SAM	ICAO Annex 4, Chapter 3. Aerodrome Obstacle Chart - ICAO, Type A.	Peru	Need for effective production of Aerodrome Obstacle Chart - ICAO, Type A., concerning the following airport: Chiclayo, y Pisco .		SAM Office records. It is included in Action Plan 2010-2016.	A	Action plan (2006) 30%implemented.	Indicated State	DEC/ 2010	
AIS 274 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.	Peru	Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 276 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Perú	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.	A				
AIS 277 SAM	ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.		Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
PRY Paraguay										
AIS 38 SAM	Annex 15; 3.6.1 English language	Paraguay	Requirement to use English for plain language texts in AIS publications		SAM RO Records. P/DINAC 1302/2011 Implementation is expected in August 2012.	A	Action Plan (2006) Action Plan completion August 2012	DINAC	APR/ 2015	Implementation planned in August 2012 P/DINAC nro 1302/2011 EXP DINAC Nro. 002168/11 Correcting action plan implemented 90%
AIS 270 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.		Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 271 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.		Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015	SAM/RO records.	A				
AIS 272 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Paraguay	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 273 SAM	ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.		Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
SUR Suriname										
AIS 57 SAM	Annex 4, 17; Cap. 17.1. VFR aeronautical chart (Scale, 1:500,000)	Suriname	Need for production of this serie of ICAO chart under the WGS-84 system to satisfy the lack of production of the WAC aeronautical chart.		SAM Office records.	B	Action plan 2005		Indicated State.	
AIS 136 SAM	ICAO Annex 4, Chapter 11; 11.7.2 and 11.10.6.5. Instrument Approach Charts - OACL.	Suriname	Need to include the topographic (11.7.2), and the ground profile informations (11.10.6.5) in the production of instrument approach charts - OACL.		Records SAM Office.	A	Action plan 2005 70% implemented		Indicated State	
AIS 173 SAM	Annex 15, Para. 3.2 Implementation of Quality system (QS) at the AIS	Suriname	It is required the implementation of a quality system (QS); as well as, of the quality assurance and quality control procedures at the AIS/MAP services.		Relevant technical documentation and rules are being prepared by the GREPECAS AIS/MAP Subgroup, in order to assist the CAR/SAM States to achieve this objective	A	Action plan 2005 Ongoing		Indicated State	
AIS 189 SAM	ANNEX 15; Chap 3, 3.2.8, and 3.2.10 Integrity of aeronautical information/data.	Suriname	Need that quality control (QC) system be implemented by the States, to ensure the required level of integrity of the aeronautical information/data issued and/or available. Application of cyclic redundancy check (CRC).		Registro Oficina SAM	A	Action plan 2005 Ongoing		Indicated States	
AIS 203 SAM	Annex 4, Chap 13, Para 13.6.1 C). Aerodrome/Heliport Chart - ICAO.	Suriname	Need for the inclusion of geoid undulation in the Aerodrome/Heliport Chart - ICAO.		Records SAM Office.	A	Action plan 2006 70% implemented		Indicated State	
AIS 278 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.	Suriname	Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 279 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.	Suriname	Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015	SAM/RO records	A				

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REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 280 SAM	ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.	Suriname	Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation	DEC/ 2015	SAM/RO records.	A				
AIS 281 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Suriname	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.	A				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
URY Uruguay										
AIS 79 SAM	ICAO Annex 4, Chapter 3. Aerodrome Obstacle Chart - ICAO, Type A.	Uruguay	Need for effective production of Aerodrome Obstacle Chart - ICAO, Type A., concerning the following airport: Laguna del Sauce y Intl/Camasco.		SAM Office records. Se estima completar en Julio 2015	A	# Implementation Plan (2004) indicated that relevant action is being taken on the matter.	Indicated State	DEC/ 2015	
AIS 282 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.	Uruguay	Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 283 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.	Uruguay	Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015	SAM/RO records	A				
AIS 284 SAM	ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Uruguay	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records.	A				

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REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 285 SAM	ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.	Uruguay	Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation	DEC/ 2015	SAM/RO records.	A				

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IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
VEN Venezuela										
AIS	80 SAM ICAO Annex 4, Chapter 3. Aerodrome Obstacle Chart - ICAO, Type A.	Venezuela	Need for effective production of Aerodrome Obstacle Chart - ICAO, Type A., concerning the following airport: Caracas, Charallave, Margarita, Maturin, Puerto Cabello, San Antonio del Táchira y		SAM Office records.	A	Action Plan (2006) 50% implemented		Indicated State	
AIS	286 SAM ICAO Annex 15, Chapter 10, 10.1.6 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation surfaces.	Venezuela	Needs to provide electronic obstacles data for aerodromes regularly used by international civil aviation for: a) Area 2a for those obstacles that penetrate the relevant obstacle data collection surface specified in Appendix 8; b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and c) penetrations of the aerodrome obstacle limitation	DEC/ 2015	SAM/RO records	A				
AIS	287 SAM ICAO Annex 15, Chapter 10, 10.1.5 At aerodromes regularly used by international civil aviation, electronic terrain data shall be provided for: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	Venezuela	Need to provide electronic terrain data for aerodromes regularly used by international civil aviation for the following areas: a) Area 2a; b) the take-off flight path area; and c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.	DEC/ 2015	SAM/RO records	A				

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REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIS FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
AIS 288 SAM	ICAO Annex 15, Chapter 10, 10.1.4 At aerodromes regularly used by international civil aviation, electronic obstacle data shall be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.	Venezuela	Need to provide electronic obstacle data located inside of area 2 for aerodrome regularly used by international civil aviation	DEC/ 2015	SAM/RO records.	A				
AIS 289 SAM	ICAO Annex 15, Chapter 10, 10.1.3 Electronic terrain data shall be provided for Area 1.	Venezuela	Need to provide the obstacle located in the Area 1 higher than 100 m above ground	DEC/ 2015	SAM/RO records.	A				
AIS 291 SAM	ICAO Annex 15, Chapter 3, 3.7.1 Quality Magnagement System	Venezuela	Requirement to implement and maintain a quality management system that covers all the functions of AIS	JUN/ 2016	SAM/RO records	A				

Agenda Item 4: Analysis of objectives, metrics and dates for the implementation of elements of BO-DAIM, B1-DAIM and B1-SWIM

1.1 Under this agenda item, the Meeting reviewed the following papers:

- WP/06 - *Global Air Navigation Plan – Sixth Edition – AIM-related aspects* (presented by the Secretariat).
- WP/07 – *Planning of Vol. III of the CAR/SAM e-ANP for AIM in the SAM Region* (presented by the Secretariat).

1.2 The Meeting reviewed AIM-related aspects contained in the sixth edition of the Global Air navigation Plan (GANP).

1.3 The Meeting noted that B0-DATM had been deleted from the ASBU modules and its elements had been transferred to a module renamed B1-DAIM. It also noted that the SWIM module had been moved to Block 2.

1.4 The Meeting took note of the basic building blocks (BBBs) related to AIM, shown in **Appendix A¹** to this part of the report.

1.5 The Meeting agreed that the GANP was a planning tool that would help all areas look into the future to build an integrated, harmonised, globally interoperable and seamless system. The Meeting considered that information management would play a major role in the construction of such system.

1.6 The Meeting urged those States that had not done so yet, to develop their national plan for the migration from AIS to AIM based on the GANP, taking into account all the elements of modules B1-DAIM, B2-DAIM and B2-SWIM. Likewise, it urged States to conduct cost-benefit studies based on the guidelines contained in that same document, and assess the contribution of AIM to the key performance indicators (KPIs) included in the KPI catalogue attached to the GANP.

1.7 The Meeting underlined that, when preparing the national plan, BBB implementation should be used as the baseline for planning subsequent improvements.

1.8 The Meeting urged States to submit their national plan to the Secretariat by the end of December of this year.

1.9 Regarding the drafting of Vol. III of the CAR/SAM e-ANP, the Meeting took note that, through Decision PPRC/4-3, it had been postponed until the approval of the sixth edition of the GANP.

1.10 Based on that stated in the previous paragraph regarding the approval of the GANP version, the Secretariat suggested reviewing the status of implementation of the elements of B1-DAIM in the States, since they would serve as the basis for drafting Vol. III.

1.11 The States provided the aforementioned information, using the templates contained in **Appendix B²** to this part of the report. The Secretariat would collect the information from those States that did not attend the Meeting (Colombia, Guyana) in order to complete the information for the SAM Region and be able to design the AIM chapter of Vol. III of the CAR/SAM e-ANP.

¹ Appendix A to WP/06

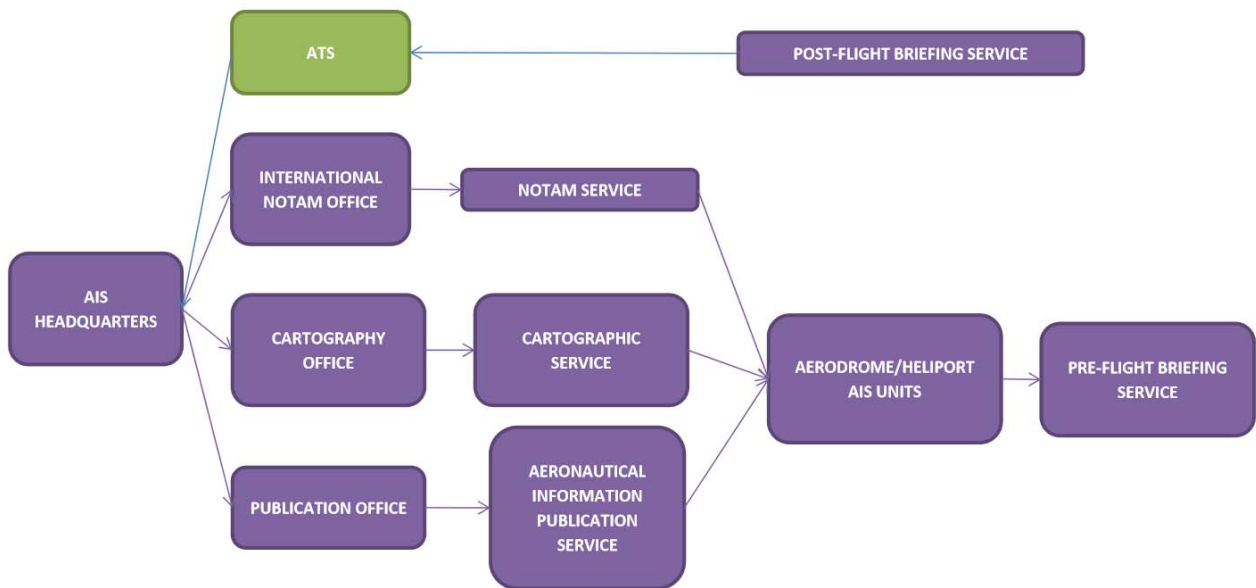
² Appendix A to WP/07

1.12 Regarding module B2-SWIM, the Meeting urged States to establish working groups with all the stakeholders in each State and draw a roadmap for its implementation. The Meeting urged States to submit this roadmap to the SAM/AIM/13 meeting.

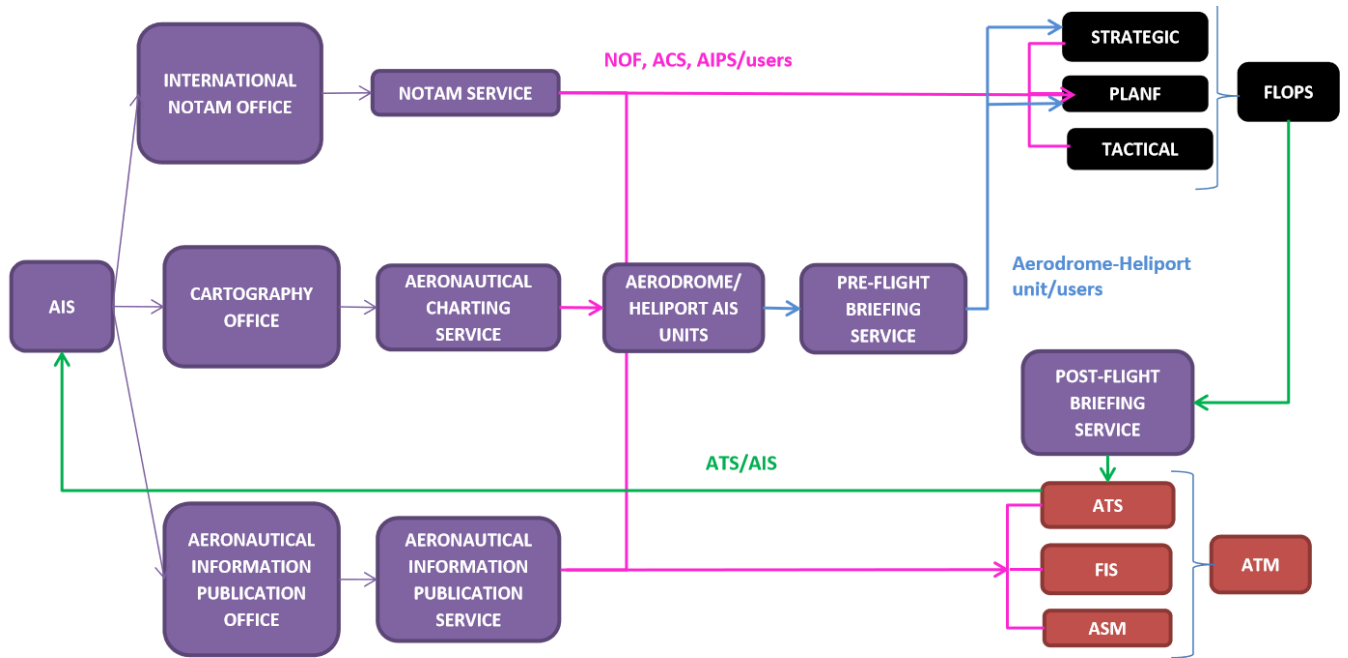
Appendix A

Frame of Reference of the Basic Constituent Elements (BBBs) for aeronautical information services /
Aeronautical information management

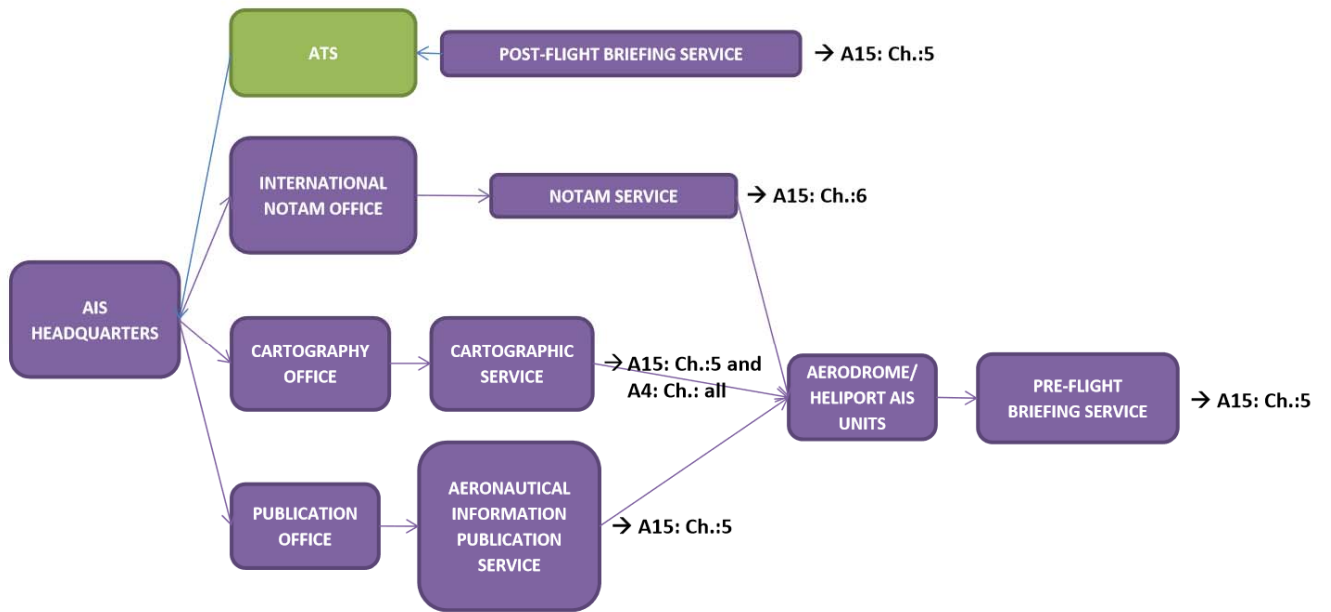
Módules and basic elements of AIS/AIM



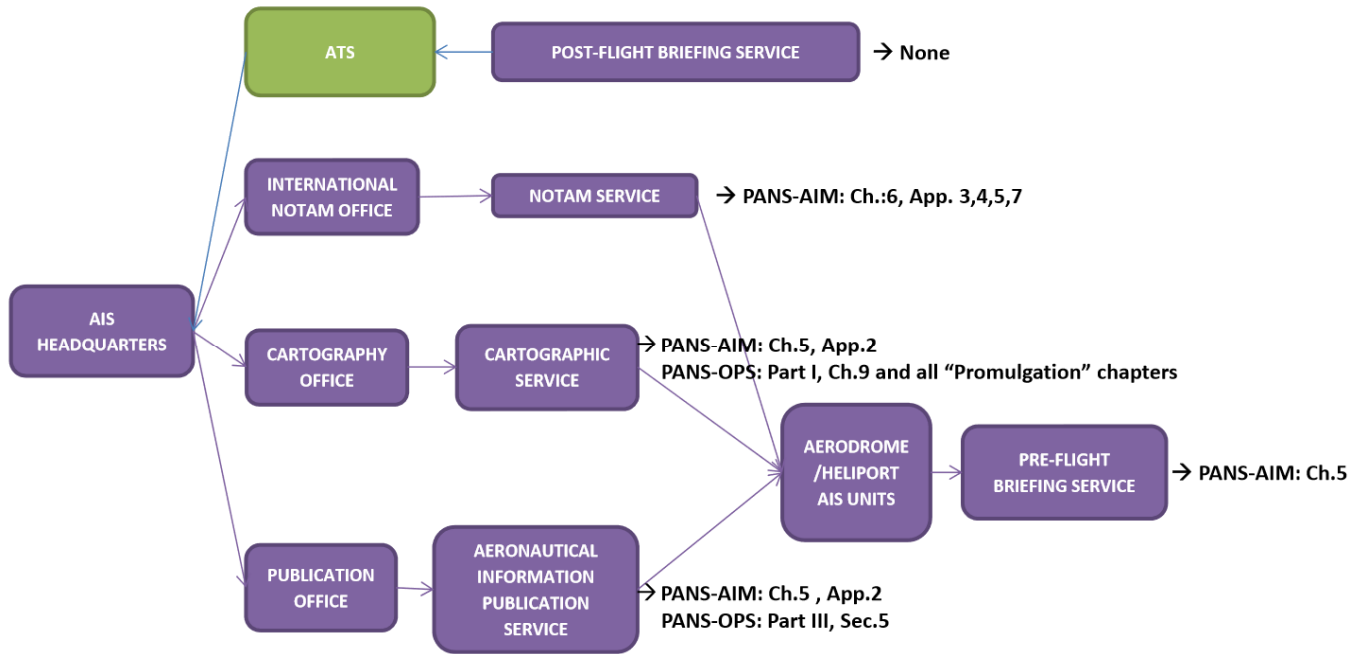
Support and final users of the aeronautical information services / Aeronautical Information Management



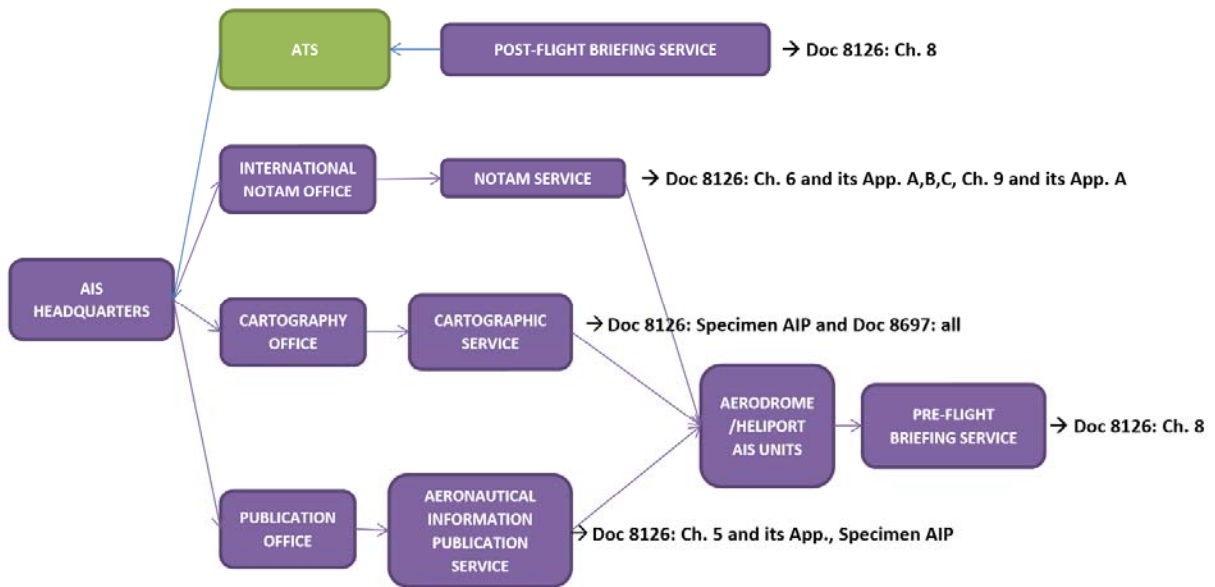
Basic elements of aeronautical information services / Reference of ICAO SARPs



Basic elements of aeronautical information services / Reference of PANS AIM documents



Basic elements of aeronautical information services / Reference documents and ICAO Guidelines



Reference Documents

- Annex 15: Aeronautical information services
- Annex 4: Aeronautical Charts
- PANS-AIM (Doc 10066): Aeronautical Information Management
- PANS-OPS (Doc 8168): Aircraft operations
- Doc 8126: Manual of the Aeronautical Information Service

APPENDIX B

B0- DATM: *Service Improvement through Digital Aeronautical Information Management*

Description and purpose

The initial introduction of digital processing and management of information, through aeronautical information service (AIS)/aeronautical information management (AIM) implementation, use of aeronautical information exchange model (AIXM), migration to electronic aeronautical information publication (AIP) and better quality and availability of data

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	N	Y	Y	Y

B0 – DATM: Status of AIM improvements through digital management of aeronautical information

ELEMENTS	SCOPE	INDICATORS/ METRICS	GOALS: %/ Date	STATUS
1 – National AIM plan / Action plan				
2 - AIXM				
3 – Electronic AIP				
4 - QMS				
5 - WGS-84				
6 – Electronic terrain and obstacle data (e-TOD)				

<i>B0 – DATM: Status of AIM improvements through digital management of aeronautical information</i>				
ELEMENTS	SCOPE	INDICATORS/ METRICS	GOALS: %/ Date	STATUS
7 – Digital NOTAM				
8 – Integrated aeronautical information databases (IAID)				
9- SLAs				

B0-DATM Enablers/Tables

In order to help States plan for a prompt AIS-to-AIM transition, use must be made of the following tables, which provide more details than the standard ANRF:

- 1- **Table B0-DATM 3-1** Table B0-DATM 3-1 sets forth the requirements for the provision of AIS/AIM products and services based on the integrated aeronautical information database (IAID). It reflects the transition from the current product-based AIS to the data-based AIM. For the future digital environment, it is important for authorised databases to be clearly designated, and for that designation to be published for the users. This is achieved through the integrated aeronautical information database (IAID) concept, a single point of access to one or more authorised databases (AIP, terrain, obstacles, AMDB, etc.) for which the State is responsible. This table will be used to monitor key performance indicators (KPIs) related to elements 1 and 2 of module B0-DATM.

- 2- **Table B0-DATM 3-2** sets forth aeronautical data quality requirements. It will be used for monitoring key performance indicators (KPIs) related to element 3 of module B0- DATM.

- 3- **Table B0-DATM 3-3** establishes the requirements for the implementation of the World Geodetic System 1984 (WGS-84). The requirement to use a common geodetic system is still essential to facilitate data exchange between different systems. The expression of all the coordinates in the AIP and the graphs that use WGS-84 are an important first step for the transition to AIM. This table will be used for monitoring key performance indicators (KPIs) related to element 4 of module B0- DATM.

- 4- **Table B0-DATM 3-4-1** establishes the requirements for the provision of terrain and obstacle datasets for Areas 1 and 4. It will be used for monitoring key performance indicators (KPIs) related to element 5 of module B0-DATM.

- 5- **Table B0-DATM 3-4-2** establishes the requirements for the provision of terrain and obstacle datasets for Area 2. It will be used for monitoring key performance indicators (KPIs) related to element 5 of module B0-DATM.

- 6- **Table B0-DATM 3-4-3** establishes the requirements for the provision of terrain and obstacle datasets for Area 3 and the implementation of aerodrome mapping databases (AMDB). It will be used for monitoring key performance indicators (KPIs) related to element 5 of module B0- DATM.

Table B0-DATM 3-1

Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)

EXPLANATION OF THE TABLE

Column:

- 1 Name of the State or territory for which the provision of AIS/AIM products and services based on the IAID is required.
- 2 Requirement for the implementation and designation of the authoritative IAID, shown by:
 - FI – Fully Implemented
 - NI – Not Implemented

Note 1 — The IAID of a State is a single access point for one or more databases (AIP, Terrain, Obstacles, AMDB, etc.). The minimum set of databases that should be integrated is defined in Annex 15.

Note 2 — The information related to the designation of the authoritative IAID should be published in the AIP (GEN 3.1)
- 3 Requirement for an IAID driven AIP production, shown by:
 - FI – Fully Implemented (eAIP: Text, Tables and Charts)
 - PI – Partially Implemented
 - NI – Not Implemented

Note 3 — AIP production includes, production of AIP, AIP Amendments and AIP Supplements

Note 4 — Charts' GIS-based database should be interoperable with AIP database
- 4 Requirement for an IAID driven NOTAM production, shown by:
 - FC – Fully Compliant
 - NC – Not Compliant
- 5 Requirement for an IAID driven SNOWTAM processing, shown by:
 - FI – Fully Implemented
 - NI – Not Implemented
- 6 Requirement for an IAID driven PIB production, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
- 7 Requirement for Procedure design systems to be interoperable with the IAID, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented

Note 5 — full implementation includes the use of the IAID for the design of the procedures and for the storage of the encoded procedures in the IAID
- 8 Requirement for ATS systems to be interoperable with the IAID, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented

NI- Not Implemented

- 9 Action **Plan**-short description of the State's Action Plan with regard to the provision of AIM products and services based on the LAID, especially for items with a "PC", "PI", "NC" or "NI" status, including planned date(s) of full compliance, as appropriate.
- 10 **Remarks- additional information, including detail of "PC", "NC", "PI" and "NI", as appropriate.**

Table B0-DATM-3-2

Quality of Aeronautical Data

EXPLANATION OF THE TABLE

Column:

1 Name of the State or territory.

2 Compliance with the requirement for implementation of QMS for Aeronautical Information Services including safety and security objectives, shown by:

FC – Fully compliant

NC – Not compliant

3 Compliance with the requirement for the establishment of formal arrangements with approved data originators concerning aeronautical data quality, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

4 Implementation of digital data exchange with originators, shown by:

FI – Implemented

PI – Partially Implemented

NI – Not implemented

Note 1 — Information providing detail of “PI” and “NI” should be given in the Remarks column (percentage of implementation).

5 Compliance with the requirement for metadata, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

6 Compliance with the requirements related to aeronautical data quality monitoring (accuracy, resolution, timeliness, completeness), shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

7 Compliance with the requirements related to aeronautical data integrity monitoring, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

8 Compliance with the requirements related to the AIRAC adherence, shown by:

FC – Fully compliant

NC – Not compliant

9 Action Plan — short description of the State’s Action Plan with regard to aeronautical data quality requirements implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate.

10 Remarks — additional information, including detail of “PC”, “NC”, “PI” and “NI”, as appropriate.

Table B0-DATM-3-3

World Geodetic System-1984 (WGS-84)

EXPLANATION OF THE TABLE

Column:

- 1 Name of the State or territory for which implementation of WGS-84 is required.
- 2 Compliance with the requirements for implementation of WGS-84 for FIR and Enroute points, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 3 Compliance with the requirements for implementation of WGS-84 for Terminal Areas (arrival, departure and instrument approach procedures), shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 4 Compliance with the requirements for implementation of WGS-84 for Aerodrome, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 5 Compliance with the requirements for implementation of Geoid Undulation, shown by: FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 6 Action Plan — short description of the State’s Action Plan with regard to WGS-84 implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate.
- 7 Remarks — additional information, including detail of “PC” and “NC”, as appropriate.

Table B0-DATM-3-4-1

Provision de e-TOD datasets for Areas 1 and 4

EXPLANATION OF THE TABLE

Column

- 1 Name of the State or territory for which Terrain and Obstacle data sets for Areas 1 and 4 are required.
- 2 Compliance with requirement for the provision of Terrain data sets for Area 1, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
- 3 Compliance with requirement for the provision of Terrain data sets for Area 4, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
 - N/A – Not Applicable
- 4 Compliance with requirement for the provision of Obstacle data sets for Area 1, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
- 5 Compliance with requirement for the provision of Obstacle data sets for Area 4, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
 - N/A – Not Applicable
- 6 Action plan — short description of the State’s Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Areas 1 and 4, especially for items with a “PC” or “NC” status, including planned date(s) of full compliance, as appropriate.
- 7 Remarks— additional information, including detail of “PC” and “NC”, as appropriate.

Table B0-DATM-3-4-2

Provision of e-TOD datasets for Area 2

EXPLANATION OF THE TABLE

Column

- 1 Name of the State or territory for which Terrain and Obstacle data sets for Area 2 are required.
- 2 Compliance with requirement for the provision of Terrain data sets for Area 2a, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
- 3 Compliance with requirement for the provision of Terrain data sets for Area 2b, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not implemented
 - N/A – Not Applicable
- 4 Compliance with requirement for the provision of Terrain data sets for Area 2c, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 5 Compliance with requirement for the provision of Terrain data sets for Area 2d, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 6 Compliance with requirement for the provision of Obstacle data sets for Area 2a, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
- 7 Compliance with requirement for the provision of Obstacle data sets for Area 2b, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not implemented
 - N/A – Not Applicable
- 8 Compliance with requirement for the provision of Obstacle data sets for Area 2c, shown by:
 - FI – Fully Implemented

PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable

- 9 Compliance with requirement for the provision of Obstacle data sets for Area 2d, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable
- 10 Action plan — short description of the State’s Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Area 2, especially for items with a “PC”, “PI”, “NC” or “NI” status.
- 11 Remarks— additional information, including detail of “PC”, “PI” and “NC”, “NI”, as appropriate.

Table B0-DATM-3-4-3
Provision of e-TOD datasets for Area 3 and Aerodrome Mapping
Databases (AMDB)

EXPLANATION OF THE TABLE

Column

- 1 Name of the State or territory for which Terrain and Obstacle data sets for Area 3 and AMDB are required.
- 2 Compliance with requirement for the provision of Terrain data sets for Area 3, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 3 Compliance with requirement for the provision of Obstacle data sets for Area 3, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 4 Implementation of AMDB, shown by: FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 5 Action plan — short description of the State’s Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Area 3 and AMDB implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status.
- 6 Remarks— additional information, including detail of “PI” and “NI”, as appropriate.

Agenda Item 5: Follow-up to the implementation of the Amendment to Annex 15 – Aeronautical Information Services and the PANS-AIM

1.1 Under this agenda item, the Meeting reviewed the following papers:

- WP/08 - *Amendment 39-B and Amendment 40 to ICAO Annex 15* (presented by the Secretariat).
- WP/09 – *Proposals of amendment to ICAO Annexes 4 and 5 and to Doc 10066 PANS AIM as a result of amendments to other ICAO annexes or documents* (presented by the Secretariat).

1.2 The Meeting reviewed the amendments to ICAO Annex 15 and Doc 10066.

Amendment 39-B

1.3 The Secretariat reminded the Meeting that Amendment 39-B would be applicable on 5 November 2020, and that it referred to the use of a global format for assessing and reporting runway surface conditions. **Appendix A** presents the amendment, its relationship with the different ICAO documents concerning AIS/AIM, as well as the objective and the stakeholders.

1.4 The Secretariat presented the new SNOWTAM format. It was noted that the following States would have the possibility of using it:

- Argentina
- Chile
- Brazil (airports located in the southern part of Brazil)
- Peru
- Bolivia
- Uruguay (frost)
- Paraguay (frost)

1.5 Argentina and Chile stated that they had the *Plan Nieve* (“Snow Plan”) for airports normally affected by snow. However, with the change of format, they would provide briefings to communicate the changes, which would also be incorporated into the *Plan Nieve*.

1.6 The other States would brief aerodrome operators and would consider the possibility of issuing a circular to explain the changes introduced by this amendment, mainly with respect to the format for assessing and reporting runway surface conditions.

Amendment 40

1.7 Regarding Amendment 40, States informed that they were in the process of implementation. Most States reported difficulties in the implementation of the digital data sets because of the investment involved.

1.8 The States also asked about the best methodology for using the Data Catalogue. In presentations made by the SRVSOP on the Latin American Regulations (LAR 215) and by the Secretariat, it was noted that the Data Catalogue is a tool for establishing formal arrangements between AIS/AIM units and data originators. The data catalogue consolidates data that may be collected and maintained by the AIS, and is the source of accuracy and integrity requirements for defining and reporting

aeronautical data to the AIS.

1.9 The Secretariat explained that the data catalogue tables that accompany the first edition of Doc 10066 PANS-AIM do not constitute a standard. States could tailor them to their own needs, in the understanding that they should meet regional or national requirements. Furthermore, since the standard did not define a methodology for implementation, the State could choose the best implementation strategy.

1.10 The Secretariat as well as the Regional safety oversight system (SRVSOP) recommended to send those tables to the data originators, for subsequent delivery to AIS with the data and the corresponding descriptions in the table.

Proposals of amendment to Annex 4, Annex 15 and Doc 10066 PANS-AIM as a result of proposals of amendment to other ICAO documents

1.11 The Meeting took note that, since the approval of Amendment 40 to Annex 15 and to the first edition of Doc 10066 PANS-AIM, ICAO had circulated three proposals of amendment to the aforementioned documents as a result of proposals of amendment to other related ICAO documents.

1.12 The Meeting took note that the proposals of amendment had been communicated to States, and referred to:

- Proposals of amendment to Annexes 11 and 15 concerning contingency plans for conflict zones, circulated to the States on 16 November 2018
- Proposals of amendment to Annex 14, Volume I, and the ensuing amendments to Annex 4, PANS-Aerodromes (Doc 9981) and PANS-AIM (Doc 10066), circulated to the States on 18 December 2018
- Proposals of amendment to PANS-OPS, Volumes I and II, PANS-AIM and Annex 4, derived from IFPP/14, circulated to States on 10 April 2019

1.13 The Meeting took note that not all AIS providers had received the proposals of amendment. Some States noted that they had received the proposals, had made comments, and were preparing the modifications to their national regulations to align them with the aforementioned amendments if approved.

1.14 The Secretariat noted that it would continue sending the proposals of amendment related to AIS/AIM documents to AIS/AIM focal points for their information and to take action with regard to the answers and comments requested therein.

1.15 The Meeting urged States to follow up on these proposals of amendment and interact with the affected areas in order to implement the requirements once the amendments were approved.



| ICAO CAPACITY & EFFICIENCY

SNOWTAM

Enmienda 39-B Anexo 15

OACI SAM, Lima Perú/Abril 2018





| ICAO

CAPACITY & EFFICIENCY

ENMIENDA NÚM. 39-B SARPS AIS

SERVICIOS DE INFORMACIÓN AERONÁUTICA ANEXO 15

- ✈ La enmienda del Anexo 15 fue adoptada por el Consejo de la OACI el **22 de febrero de 2016**
- ✈ Aplicable a partir del **5 de noviembre de 2020** (resolución de adopción véase la comunicación AN 2/2.4-16/18).



Principales cambios de la AMDt 39 – B



Fecha de aplicación **5 de noviembre de 2020**

✈ párrafo **1.1** Definiciones: SNOWTAM

✈ párrafos **5.2.2**, **5.2.3**, y **7.1.1.2**

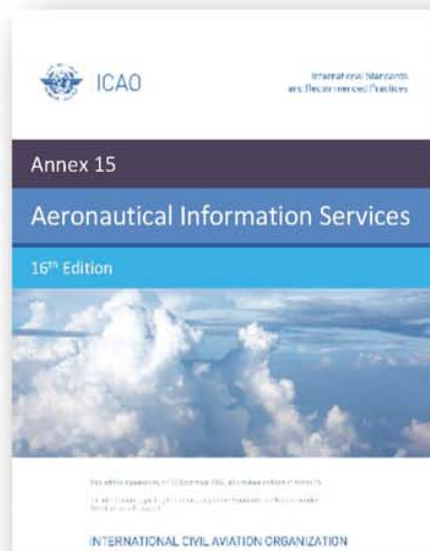
✈ **Apéndice 2.** Formato de SNOWTAM, Instrucciones para llenar el formato de SNOWTAM y Ejemplo de formato SNOWTAM que ha sido llenado



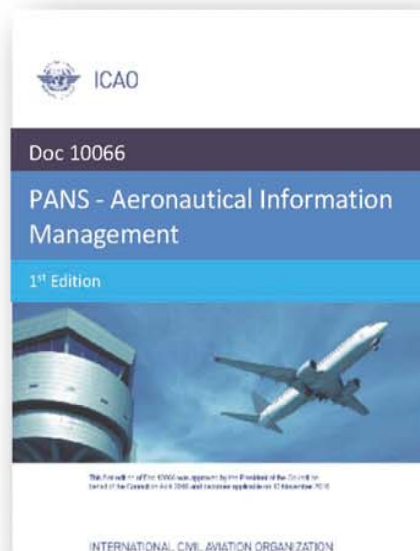


ICAO CAPACITY & EFFICIENCY

Marco de documentos AIM



- Adoptado por el Consejo de la OACI (febrero de 2018)
- Carta del estado (abril de 2018)
- Aplicación Fecha noviembre 2018



- Para ser aprobado por el Consejo de la OACI
- Carta del estado (julio de 2018)
- Aplicación Fecha noviembre 2018



- Aún en trabajo
- Listo por la fecha de aplicabilidad (noviembre 2018)



| ICAO CAPACITY & EFFICIENCY

Manual AIS Doc. 8126

Volume 1 – Organisational Development

(70% of the document is written)

- Orientación para el desarrollo organizacional de AIS que incluye la transición a AIM
- **Órganos de gestión: ANSP, reguladores**

Volume 2 – Processing Aeronautical Data

(90% of the document is written)

- Orientación para procesar datos e información aeronáutica en un entorno centrado en datos
- **Personal operacional**

Volume 3 – Aeronautical Information in a Standardized Presentation

(100% of the document is written)

- Orientación para el suministro de información aeronáutica en una presentación estandarizada
- **Personal operacional**

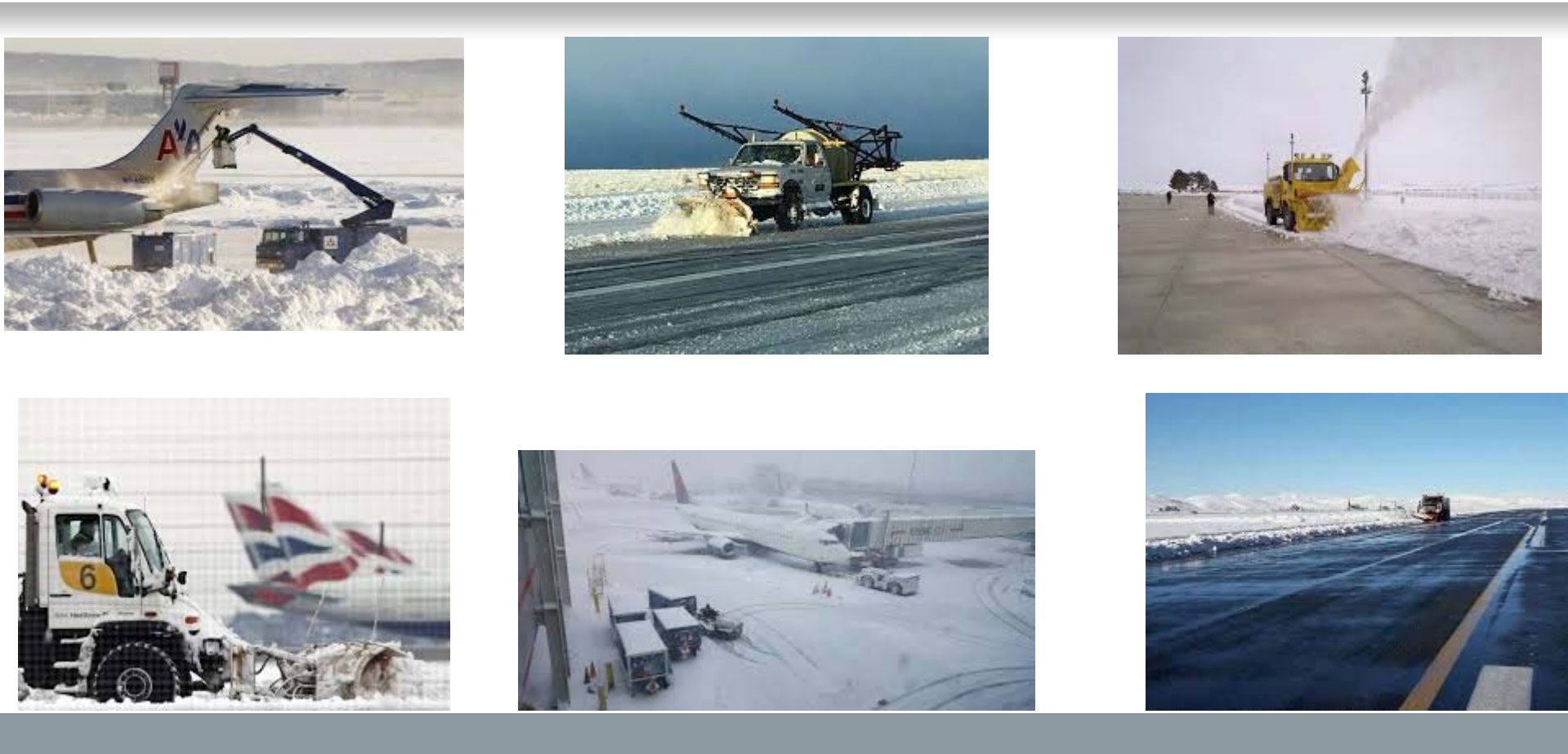
Volume 4 – Digital Products and Services

(40% of the document is written)

- Orientación para proporcionar productos y servicios digitales
- **Personal de operaciones, fabricantes de AIM SW**



ICAO CAPACITY & EFFICIENCY





Parte introductoria:

SNOWTAM. NOTAM de una serie especial, presentado en un formato normalizado en que se proporciona un informe del estado de la pista que notifica, ~~por medio de un formato específico,~~ la presencia o ~~eliminación~~ el cese de condiciones peligrosas debidas a nieve, nieve fundente, hielo, escarcha, o agua estancada o agua relacionada con nieve, nieve fundente o hielo o escarcha en el área de movimiento.

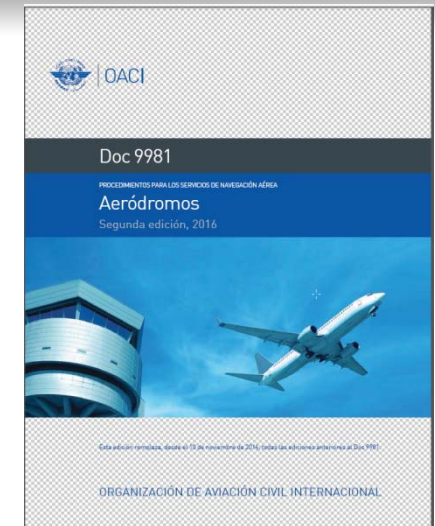




SNOWTAM

CAPÍTULO 5. NOTAM

5.2 Especificaciones generales



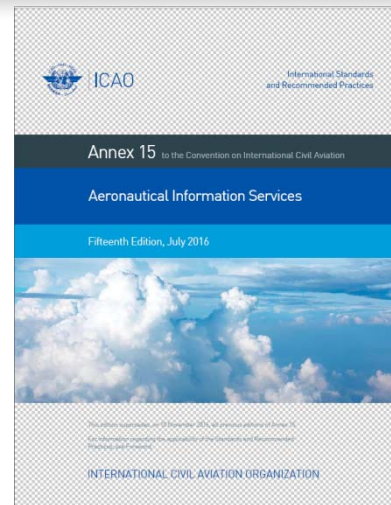
Nota 1.— En el Doc 8126 se proporcionan textos de orientación detallados que tratan sobre la producción de NOTAM, SNOWTAM, ASHTAM y PIB.

Nota 2.— En los PANS-Aeródromos (Doc 9981) se proporcionan procedimientos adicionales que cubren la presentación de informes del estado de la superficie de la pista.



CAPÍTULO 5. NOTAM

5.2 Especificaciones generales



5.2.3 La información relativa a depósitos de nieve, nieve fundente, hielo, y ~~agua estancada~~ escarcha, agua estancada o agua relacionada con nieve, nieve fundente, hielo o escarcha en el área de movimiento ~~en el pavimento de los aeródromos/helipuertos~~ contendrá los datos, cuando se notifiquen se difundirá por medio de un SNOWTAM, y contendrá la información en el orden indicado en el formato de SNOWTAM del Apéndice 2. |



ICAO CAPACITY & EFFICIENCY

SNOWTAM

CAPÍTULO 7. CIRCULARES DE INFORMACIÓN AERONÁUTICA (AIC)

7.1 Iniciación

7.1.1.2 El plan para la nieve publicado de acuerdo con AD 1.2.2 del Apéndice 1, se complementará con información estacional, que se expedirá con bastante antelación al comienzo de cada invierno — como mínimo un mes antes de que empiecen normalmente las condiciones invernales — y contendrá información como la que se indica a continuación:

- a) lista de los aeródromos/heliportos en los que se espera llevar a cabo la limpieza de la nieve, nieve fundente, hielo o escarcha durante el invierno siguiente:



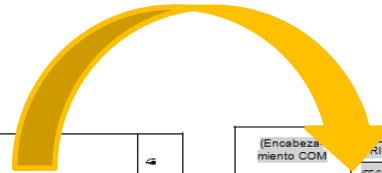


ICAO CAPACITY & EFFICIENCY

SNOWTAM

APÉNDICE 2. FORMATO DE SNOWTAM

Se sustituye en su totalidad



(Encabezamiento COM)	(FECHA Y HORA DE DEPÓSITO)	(INDICADOR DEL ORIGINADOR)		
(Encabezamiento abreviado)	(SWAA* NÚMERO DE SERIE)	(INDICADOR DE LUGAR)	FECHA/HORA DE OBSERVACIÓN	(GRUPO FACULTATIVO)
SNOWTAM				
INDICADOR DE LUGAR DEL AERÓDROMO				
(FECHA/HORA DE LA OBSERVACIÓN (hora en UTC, en que se terminó la medición))				
(DESIGNADORES DE PISTA)				
(LONGITUD DE PISTA LIMPIA, SI ES INFERIOR A LA LONGITUD PUBLICADA (m))				
(ANCHURA DE PISTA LIMPIA, SI ES INFERIOR A LA ANCHURA PUBLICADA (m, si está compuesta por secciones a 3/3 o 4/4 sección a 4/4 secciones de 3" o "R"))				
(DEPÓSITO SOBRE TODA LA LONGITUD DE LA PISTA (Observado sobre cada tercio de la pista a partir del umbral cuyo número de designación de pista sea menor)				
0 NIL PISTA LIMPIA Y SECA 1 HÚMEDA 2 MOJADA 3 CUBIERTA DE ESCARCHA O HELADA (capas normalmente inferior a 1 mm) 4 NIEVE SECA 5 NIEVE MOJADA 6 NIEVE FUNDENTE 7 HIELO 8 NIEVE COMPACTADA O APISONADA 9 SURCOS O CRESTAS HELADOS				
PROFUNDIDAD MEDIA DE CADA TERCIO DE LA LONGITUD TOTAL DE LA PISTA (mm)				
ROZAMIENTO ESTIMADO DE LA SUPERFICIE EN CADA TERCIO DE LA PISTA				
ROZAMIENTO EN LA SUPERFICIE ESTIMADO				
BUENA 6 MEDIANA/BUENA 4 MEDIANA 3 MEDIANA/DEFICIENTE 2				

(Encabezamiento COM)	(INDICADOR DE PRIORIDAD)	DIRECCIONES		
(Encabezamiento abreviado)	(FECHA Y HORA DE DEPÓSITO)	(INDICADOR DEL EXPEDIDOR)	FECHA/HORA DE OBSERVACIÓN	(GRUPO FACULTATIVO)
sección de performance del avión				
(INDICADOR DE LUGAR DEL AERÓDROMO)				
(FECHA/HORA DE LA OBSERVACIÓN (hora en UTC, en que se terminó la medición))				
(NÚMERO DE DESIGNACIÓN DE PISTA MÁS BAJO)				
CLAVE DE ESTADO DE LA PISTA PARA CADA TERCIO DE LA PISTA (De la Matriz de evaluación del estado de la pista (RCAM) 0, 1, 2, 3, 4, 5 a 6)				
PORCENTAJE DE COBERTURA DEL CONTAMINANTE PARA CADA TERCIO DE LA PISTA				
ESPESOR (mm) DE CONTAMINANTE SUELTO PARA CADA TERCIO DE LA PISTA				
(DESCRIPCIÓN DEL ESTADO DE TODA LA LONGITUD DE LA PISTA (Observado sobre cada tercio de la pista, a partir del umbral cuyo número de designación de pista sea menor)				
NIEVE COMPACTA SECA NIEVE SECA NIEVE SECA SOBRE NIEVE COMPACTA NIEVE SECA SOBRE HIELO ESCARCHADA HIELO NIEVE FUNDENTE AGUA ESTANCADA AGUA SOBRE NIEVE COMPACTA MOJADA HIELO MOJADO NIEVE MOJADA NIEVE MOJADA SOBRE NIEVE COMPACTA NIEVE MOJADA SOBRE HIELO				
ANCHURA DE PISTA A LA QUE SE APLICA LA RWYCC, SI ES INFERIOR A LA ANCHURA PUBLICADA				
DESCRIPCIÓN RELATIVA A LA LÍNEA DE CONCIENCIA DE LA OBSERVADOR				
(LONGITUD DE PISTA REDUCIDA, SI ES INFERIOR A LA LONGITUD PUBLICADA (m))				
VENTISCA DE NIEVE EN LA PISTA				



Modificaciones importantes :

- ✈ Se modifica el formato completamente
- ✈ Se introducen nuevas instrucciones para el llenado del nuevo Formato SNOWTAM
- ✈ Se introducen nuevos ejemplos de SNOWTAM con mas escenarios
- ✈ Se cambian definiciones de los diversos tipos de nieve
 - ✈ Nieve fundente
 - ✈ Nieve (en tierra)

2. — *Casilla A* — Indicador de lugar del aeródromo (indicador de lugar de cuatro letras).

3. — *Casilla B* — Grupo fecha/hora de 8 cifras — indica la hora de observación en la secuencia mes, día, hora y minutos en UTC; esta casilla debe llenarse siempre.

4. — *Casilla C* — Número más bajo designador de pista.

5. — *Casilla D* — Longitud en metros de la pista limpia, si es inferior a la longitud publicada (véase la casilla T para notificar si parte de la pista no está limpia).

6. — *Casilla E* — Anchura en metros de la pista limpia, si es inferior a la anchura publicada; si está desplazada a la izquierda o a la derecha del eje, añádase (sin espacios) "L" o "R" según se vea desde el umbral que tenga el número designador más bajo.

7. — *Casilla F* — Depósitos sobre la longitud de la pista, según se explica en el formato de SNOWTAM. Pueden utilizarse combinaciones adecuadas de estos números para indicar condiciones variables sobre los distintos segmentos de la pista. Si hay más de un depósito en el mismo tramo de la pista, estos deberían notificarse en orden desde la parte superior (la más cercana al cielo) hasta la parte inferior (la más cercana a la pista). Las acumulaciones causadas por el viento, los espesores de depósitos apreciablemente superiores a los valores medios u otras características significativas de los depósitos pueden notificarse en la casilla T en lenguaje claro. Los valores correspondientes a cada tercio de la pista se separarán por medio de una barra oblicua (/), sin espacio entre los valores de los depósitos y la barra oblicua, por ejemplo: 47/47/47.

Nota: Al final de este Apéndice figuran las definiciones de los diversos tipos de nieve.

8. — *Casilla G* — Espesor medio en milímetros de depósito correspondiente a cada tercio de la longitud total de la pista, o "XXX" si no es medible o no es importante desde el punto de vista operacional. La evaluación debe efectuarse con una precisión de 20 mm para nieve seca, 10 mm para nieve mojada y 3 mm para nieve fundente. Los valores correspondientes a cada tercio de la pista se separarán por medio de una barra oblicua (/), sin espacio entre los valores y la barra oblicua, por ejemplo: 20/20/20.

9. — *Casilla H* — Rozamiento en la superficie estimado, en cada tercio de la pista (una cifra) en orden, empezando por el umbral que tenga el número designador de pista más bajo.

Los dispositivos para medir el rozamiento pueden emplearse como parte de la evaluación general de la superficie de una pista. Algunos Estados pueden haber elaborado procedimientos para la evaluación de la superficie de las pistas que incluyen el uso de información obtenida con dispositivos para medir el rozamiento y la proveniente de notificaciones de valores cuantitativos. En tales casos, estos procedimientos deberían publicarse en la AIP y notificarse en la casilla T del formato de SNOWTAM.



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Sumario

- Los pilotos necesitan información precisa sobre la calidad de las condiciones de la superficie de la pista cuando operan en pistas contaminadas con nieve / hielo
- La información se obtiene normalmente mediante mediciones del coeficiente de fricción de la superficie de la pista y / o por juicios de expertos inspectores de pista
- Esta enmienda representa un apoyo para la decisión de los inspectores de pistas que interpreta los datos descriptivos de los SNOWTAM y permite la toma de acciones para el frenado en la escala común que va desde "pobre" a "bueno"





ICAO

CAPACITY & EFFICIENCY



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Central American
and Caribbean
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[SAM] Office
Lima

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Western and
Central African
[WACAF] Office
Dakar

European and
North Atlantic
[EUR/NAT] Office
Paris

Middle East
[MID] Office
Cairo

Eastern and
Southern African
[ESAF] Office
Nairobi

Asia and Pacific
[APAC] Sub-office
Beijing

Asia and Pacific
[APAC] Office
Bangkok



GRACIAS !

Agenda Item 6: Follow-up to the conclusions of GREPECAS/18 and to the recommendations of the AN/Conf-13 related to AIM

6.1 Under this agenda item, the Meeting reviewed the following papers:

- WP/10 – *Follow-up to the conclusions of GREPECAS/18* (presented by the Secretariat).
- WP/11 – *Follow-up to the recommendations of the AN/Conf-13 related to AIM* (presented by the Secretariat).

6.2 The Meeting reviewed the recommendations of the Thirteenth Air Navigation Conference and the conclusions of GREPECAS/18 related to AIM.

Recommendations of the AN/Conf-13

6.3 The Meeting took note that the AN/Conf-13 had formulated 52 recommendations, and that those related to AIS/AIM were as follows:

- a) Recommendation 1.2/1, item b), on the ASBU framework and the BBBs;
- b) Recommendation 1.4/1, item b), on the cost-benefit analysis for investment projects;
- c) Recommendation 2.2/2, item d), on the publication of information on the use of GNSS elements in aeronautical information publications (AIPs);
- d) Recommendation 3.1/1, items a), b), c) and d), on SWIM implementation;
- e) Recommendation 3.5/1, items a) and b) on ICARD database management;
- f) Recommendation 4.2/1, items a) and b) on the implementation of minimum navigation services

6.4 After reviewing these recommendations, the Meeting formulated the following conclusion for their follow-up:

CONCLUSION	
SAMAIM 12/02	Follow-up to the recommendations of the AN/Conf-13 related to AIM
<p>That States that have not done so yet:</p> <ol style="list-style-type: none"> a) review and update the ASBU framework and the BBBs related to AIM; b) conduct a cost-benefit study on the implementation of AIM improvements; c) ensure compliance with ICAO provisions concerning the publication of information on the use of GNSS elements in aeronautical information publications (AIPs); d) support and prepare roadmaps for SWIM implementation; e) support the proper management of ICARD database codes; and f) plan the implementation of the basic services related to AIM defined in the basic building blocks (BBBs) in their national air navigation plans. 	<p>Expected impact:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Political / Global <input type="checkbox"/> Interregional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Technical/Operational
<p>Why: To implement aeronautical information management in an electronic environment and prepare aeronautical data and information in an interoperable format for exchange in a SWIM</p>	

environment.	
When: Before the SAM/AIM/13 meeting.	Adopted by SAM/AIM/12
Who: <input type="checkbox"/> Coordinators <input checked="" type="checkbox"/> States <input type="checkbox"/> ICAO Secretariat <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XX	

Conclusions of GREPECAS/18 related to AIM

6.5 The Secretariat reminded the Meeting that GREPECAS/18, upon analysing the implementation of AIM Projects, had expressed concern about the following issues:

- Delays in the implementation of quality management systems in AIM processes.
- Difficulties to meet the deadlines for e-TOD implementation, mainly in area 2.
- Delays in the implementation of standard aeronautical information exchange models, resulting in delays in the implementation of aeronautical information management in an electronic environment

6.6 Regarding QMS implementation, information was provided under Agenda Item 2.

6.7 Regarding e-TOD, some States noted the number of airports in which obstacle data surveys had been conducted, namely:

- Argentina: 4 airports
- Brazil: 10 airports
- Chile: one airport in addition to those already reported previously (before SAM/AIM/11)
- Panama: presented an obstacle data surveying project for two airports

6.8 Bolivia and Ecuador noted that they had prepared obstacle data surveying projects but they had not been approved by the authorities. The e-TOD implementation action plans are contained in Appendix A to this part of the report.

6.9 Uruguay has submitted the Plan, which has been approved by the authorities, and is currently in the process of implementation.

6.10 Suriname has not prepared any plan so far because they do not have an expert for this task. Will perform a training in the month of July after which will develop the implementation plan of e-TOD.

6.11 Paraguay has not prepared a plan for the implementation of e-TOD, however, Peru has a tender for the Cuzco airport.

6.12 Venezuela reported having an obstacle database but required updating.

6.13 The action plans for the implementation of the e-TOD are contained in **Appendix A** to this part of the report.

6.14 Regarding the aeronautical information exchange model, it was difficult to implement due to the bureaucratic processes required by States for software acquisition.

6.15 Regarding aeronautical charts, GREPECAS/18 had addressed the issue and, through Decision 18/11, had agreed that issues related to aeronautical charts should be addressed by G Projects.

6.16 Also regarding aeronautical charts, many examples had been identified of aeronautical charts that did not meet ICAO provisions, generating concern among users. The lack of standardisation could generate confusion among pilots and misinterpretation of requirements. Pilots receiving non-standard aeronautical charts faced a variety of options to interpret flight-critical conditions. This was dangerous and made information very difficult to discover.

6.17 Upon analysing this issue, the Meeting decided to implement an action plan to first identify if the problem occurred in the States and, if so, develop a strategy for its resolution. The strategy is described below:

- Review the aeronautical charts available in the States during the third quarter of 2019 and the first quarter of 2020. Communicate the results to the Secretariat by 31 March 2020.
- After identifying those charts that do not meet ICAO provisions, develop an action plan to amend them in 2020.
- Once the charts identified as noncompliant have been amended, plan their introduction into the AIP in successive amendments, trying to minimise the impact on the affected flight procedures and routes. Amendments should start on the last quarter of 2020.
- States that identify a large volume of charts that do not comply with ICAO requirements should inform the Secretariat in order to extend the deadlines for the resolution of these issues and minimise the impact of the amendments.
- The Secretariat will send a letter to the States to start the process.

6.18 States should inform the Secretariat of any difficulty in meeting this timetable. The Meeting requested the Secretariat to follow up on this action plan.

APPENDIX A

SAM STATES	ACTION PLAN	FOLLOW-UP
<i>Argentina</i>	Estimated date: 27 November 2019	Will revise the action plan and will send corrections with more detailed information.
<i>Bolivia</i>	Start up of corrective action: July 2017	Corrective action started on the indicated date.
<i>Brazil</i>	2017 - 8 AD 2018 - 8 AD 2019 - 8 AD 2020 - 7 AD 2021 - 7 AD 2022 - 7 AD	Brazil modified its action plan as indicated.
<i>Chile</i>	To be completed in 2022. Surveying in Areas 2a, 2b and 2c of the Arturo Merino Benítez airport of Santiago and the Chacalluta airport of Arica already started	Surveying has been completed at the Diego Aracena airport of Iquique.
<i>Colombia</i>	No plan submitted.	
<i>Ecuador</i>	No plan submitted.	
<i>French Guiana</i>	No plan submitted.	
<i>Guyana</i>	Estimated start date: April 2017. The first seven items of the Action Plan should have been completed by now.	Guyana reports that activities are being carried out according to the plan.
<i>Panama</i>	No plan submitted.	
<i>Paraguay</i>	Data collection for Areas 2a, b, c, d, completed. Other e-TOD-related activities foreseen for the period 2016 - 2019.	
<i>Peru</i>	No plan submitted.	Peru will organise a meeting among the civil aviation authority, the service provider (CORPAC) and the aerodrome operators for the drafting of the plan.
<i>Suriname</i>	No plan submitted.	
<i>Uruguay</i>	No plan submitted.	
<i>Venezuela</i>	Will start with terrain and obstacle data on the second half of 2017.	

Agenda Item 7: Implementation of systems for the exchange of aeronautical information and aeronautical data

7.1 Under this agenda item, the Meeting reviewed the following papers:

- WP/12 – *Implementation of the GEOAISWEB website* (presented by Brazil)
- WP/13 – *Implementation of the SDIA website* (presented by Brazil)
- WP/14 – *Follow-up to Project G2* (presented by the Secretariat)
- WP/15 – *AIM matters addressed in the SAM Implementation Group* (presented by the Secretariat)
- Presentation by Brazil on AIS/AIM implementation
- Presentation by Peru on the e-AIP implementation plan
- Presentation by Panama on e-AIP implementation
- Video on e-AIP presented by Uruguay
- Presentation by Argentina on the NOTAM management system and FPLs, to be implemented by EANA S.E.

7.2 The Meeting reviewed the implementation of aeronautical information and data exchange.

7.3 The Meeting recalled that Amendment 40 to Annex 15 and the new PANS-AIM defined the digital data sets that should be provided by AIS, namely:

- a) AIP data sets;
- b) terrain data sets;
- c) obstacle data sets;
- d) aerodrome chart data sets; and
- e) instrument flight procedure data sets.

7.4 The Meeting urged States to work in coordination with the communication areas in order to plan the AMHS interconnections that may facilitate the exchange of aeronautical information in an electronic environment and in an interoperable format. It also urged them to coordinate with the information technology (IT) area or the corresponding one, in order to plan for software infrastructure and networks, and to protect aeronautical databases from cyber attacks.

7.5 The Coordinator of Project G2 informed the Meeting that, with the support of the Secretariat, the drafting and translation of the EUROCONTROL document concerning the publication of the AIP in electronic format (eAIP) had continued. The document is contained in **Appendix A** to this part of the report (available only in Spanish). This summarised guide is designed to provide a clear and specific understanding of the original document.

7.6 Regarding implementation, Brazil informed the Meeting about national plans for the transition from AIS to AIM. In this regard, detailed information was provided on the processes carried out for the implementation of the requirements set forth in Amendment 40 to Annex 15 and the PANS-AIM. The processes for the implementation of the Data Catalogue and quality oversight in the data and information chain were highlighted.

7.7 Brazil also explained the operation of SDIA, which had been initially created to unify the delivery of aeronautical data and information to AIS professionals, and had also enabled direct and digital delivery for processing and dissemination, respecting the competencies and times for the requests.

7.8 Brazil informed the Meeting that, prior to SDIA, information could be delivered in different forms, for example, in person, by email or through the delivery of physical documents. By centralising and standardising reception, SDIA made tracking and monitoring easier throughout the information chain, giving the perception of a national scenario where time and quality requirements are met when processing requests.

7.9 The Meeting took note that the system also allowed for the delivery of aeronautical data and information by the originators and providers in accordance with AIM quality, competence and time requirements. The system was developed by DCEA and is available free of charge at: <https://sdia.decea.gov.br/>

7.10 Furthermore, Brazil explained the operation of the GEOAISWEB website used by Brazil for providing aeronautical information directly in a map, allowing for simultaneous use of AIS information and aeronautical charts. The information provided was consistent with the amendments to aeronautical publications (AIRAC cycle).

7.11 The delegate of Brazil demonstrated the GEOAISWEB. The Meeting noted that, using the map visualizer, it was possible to relate the data, and access aerodrome or fix coordinates. It was also possible to display airspaces and download terrain and obstacle data. It could also interact with other website databases.

7.12 It was also noted that the map visualizer had been developed in HTML5, Bootstrap, JQuery and Openlayers 4, all free software. Using the GeoSERVER software, the geographical information or data set could be displayed or downloaded in different vector and raster formats, and AIS data was captured through the WFS (*Web Feature Service*) geo service. The GEOAISWEB website had been developed by the *Instituto de Cartografia Aeronáutica – ICA* (Aeronautical mapping institute) and could be accessed at no cost at: <http://www.aisweb.aer.mil.br/geoaisweb/>

7.13 Peru informed the Meeting about e-AIP implementation plans. In this regard, the delegate of Peru described the steps taken to update the software implemented in the air navigation service provider for managing aeronautical information. According to the timetable, e-AIP implementation could start in late 2019.

7.14 Panama shared its experience with AIP implementation. The software was acquired in 2013. However, its implementation had taken some time because it had been necessary to prepare the physical space for the equipment, and train the staff to work in an electronic environment. Furthermore, its implementation had been affected by changes in the administration. Panama noted that the e-AIP was currently operational, but continuous improvement and updating continued. It ran on AIXM 4.5

7.15 Uruguay presented a video on e-AIP, which was appreciated by the Meeting because it showed e-AIP functionalities, its differences with the AIP in pdf format, and the relationship between the e-AIP and the database.

7.16 Argentina presented the CRONOS system to be implemented by EANA S.A. The delegate of Argentina explained the implementation process underway, highlighting the ‘problem tree’ they faced for managing NOTAMs and FPLs. The project design and the expected benefits were also presented.

7.17 The Meeting congratulated the States that had presented their developments in automation of aeronautical information management, highlighting the progress made by Brazil in AIM implementation. All the presentations will be posted on the website of the Meeting as good practices.

7.18 Finally, the Secretariat presented a report on AIS/AIM-related aspects addressed by the SAM Implementation Group (SAM/IG).

7.19 The Secretariat informed that the SAM/IG had analysed flight plans issues observed in various States of the Region, offering a detailed description of the issues observed and the proposals for their resolution.

7.20 The Secretariat also noted that the SAM/IG/22 meeting had seen the need to create a task force to deal with the structure of the SAM Implementation Group (SAM/IG). The purpose of the group was to ensure the interoperability of implemented systems, taking into account the amount of new systems required for the automation of aeronautical information management (AIM) services and the SWIM (System Wide Information Management), air traffic management (ATM), air traffic flow management (ATFM), communication, navigation and surveillance (CNS) and meteorology (MET) concepts.

7.21 The Secretariat noted that the SAM/IG/22 meeting (Lima, Peru, 19-23 November 2018) had approved Conclusion SAM/IG/22-3 for the creation of the Interoperability Task Force (GT Interop), whose main objective was to ensure the interoperability between automated systems used in the AIM, MET, ATM, ATFM and CNS areas, within the framework of the implementation of the elements specified in the SAM-PBIP.

GUÍA PARA LA PUBLICACIÓN DE INFORMACIÓN AERONÁUTICA ELECTRÓNICA

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1. RESUMEN EJECUTIVO

Este documento es una Guía para la Publicación de Información Aeronáutica Electrónica (e-AIP).

Esta Guía está diseñada para ayudar a comprender de manera sencilla el documento de Eurocontrol “*Specification for the Electronic Aeronautical Information Publication (e-AIP)*”.

Este documento muestra requisitos mínimos y necesarios para la presentación de la AIP electrónica (e-AIP) tomando en consideración la presentación visual, asimismo pretende incluir en próximas versiones más información en relación a Enmiendas a la AIP (AMDT), Suplemento AIP (SUP-AIP) y Circular de Información Aeronáutica (AIC) para una aplicación correcta y armonizada de las SARPs Normas y métodos recomendados por OACI.

2. APORTES IMPORTANTES DE LA AIP ELECTRÓNICA

Un componente esencial de la gestión del tráfico aéreo futuro (ATM) está en marcha es la transición del Servicio de Información Aeronáutica AIS a la Gestión de la Información Aeronáutica (AIM), a partir de los procesos manuales y productos basados en papel y servicios hacia datos, procesamiento automatizado y servicios digitales.

En este nuevo ambiente, donde los datos aeronáuticos e información se mantienen en forma digital, desde el punto de origen hasta el punto de uso, ya sea a bordo de una aeronave o en un sistema ATM, la normalización y la interoperabilidad desempeñan un papel importante.

En esta tendencia, muchos estados están optando por la publicación de la AIP electrónica, los usuarios finales pueden visualizar la mayor parte de la información desde la pantalla de un ordenador.

La migración hacia documentos electrónicos introduce nuevas capacidades, como la búsqueda rápida de hipervínculos, presentación dinámica de los cambios en el texto y los gráficos, etc.

Esto también viene con limitaciones, por lo general relacionados con el diseño de página y el formato de codificación.

Las especificaciones de los documentos de papel deben adaptarse al nuevo entorno digital.

Publicación de información aeronáutica electrónica (e-AIP)

El eAIP se produce utilizando información aeronáutica almacenada en una base de datos, estos datos son transferidos a un software especializado en la edición del e-AIP para luego ser publicado en el internet y estar disponible en diferentes ordenadores, dispositivos móviles entre otros.

Para reflejar la transición del papel a los medios electrónicos, la Publicación de Información Aeronáutica Electrónica e-AIP proporciona la siguiente funcionalidad:

- La comparación de las versiones anteriores y modificaciones del texto;
- La verificación de las fechas de vigencia para cada sección y, cuando sea posible, la fuente de la información;
- La vinculación de las referencias cruzadas dentro del cuerpo del texto;
- La capacidad de escalar y hacer un zoom dentro y fuera de las cartas.
- También se puede mostrar contenido configurable.

3. REQUISITOS DE VISUALIZACIÓN Y FUNCIONALIDAD DE LA AIP ELECTRÓNICA (e-AIP)

Los requisitos para la estructura y el diseño de la AIP electrónica se adhieren a los requisitos del Anexo 15 de OACI Servicio de Información Aeronáutica, requisitos del ciclo AIRAC, Documento 8126 Manual para los servicios de información aeronáutica y ahora a los requisitos del PANS AIM Documento OACI 10066 Gestión de la Información Aeronáutica.

4. ESTRUCTURA Y DISEÑO GENERAL DE LA AIP ELECTRÓNICA (e-AIP)

Descripción de los requisitos generales asociados con la visualización de la pantalla principal de la AIP electrónica (e-AIP) en el internet.

Se muestra una ventana que consta de tres paneles, el panel de comandos, el panel de navegación y el panel de contenido.

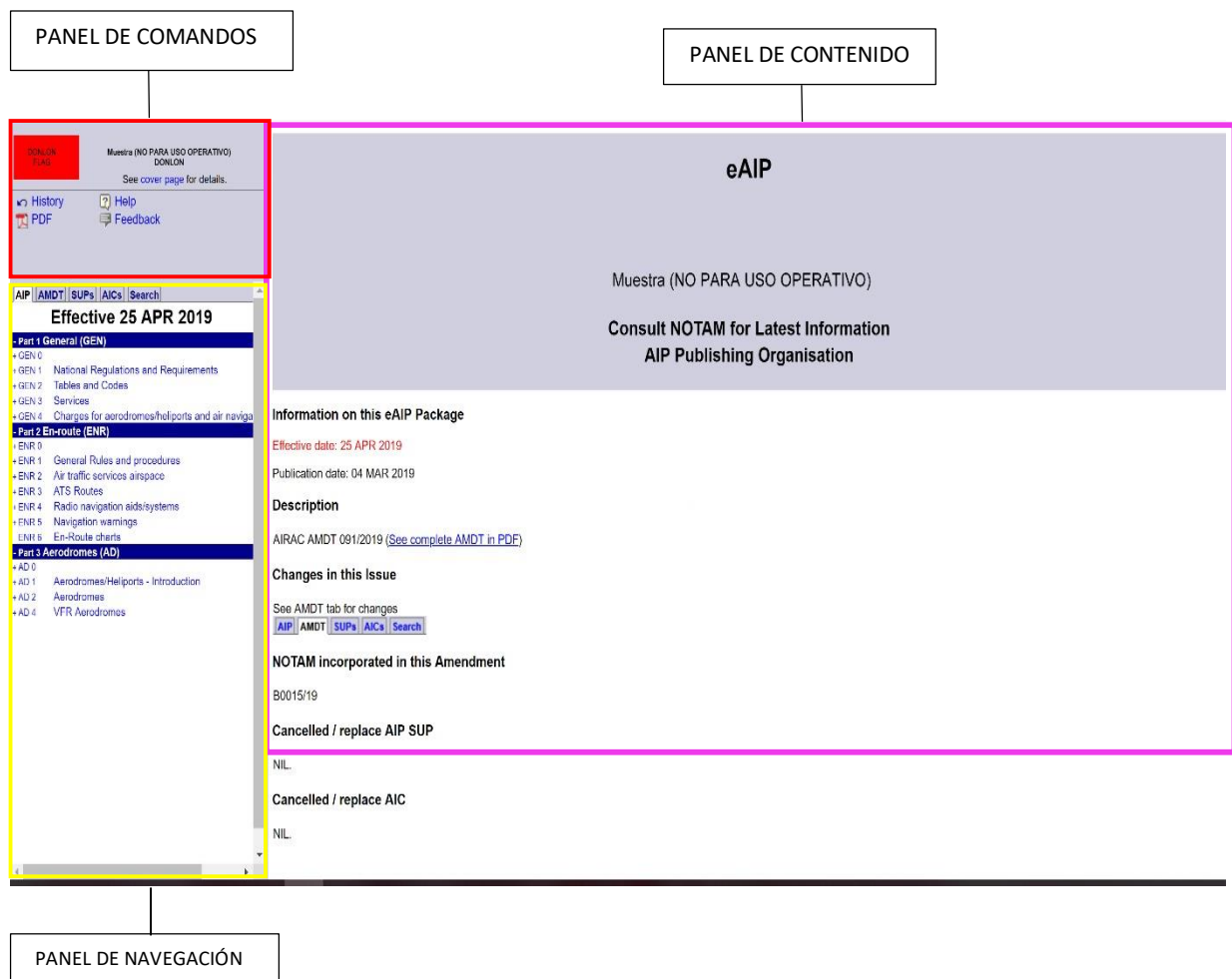


Figura 1

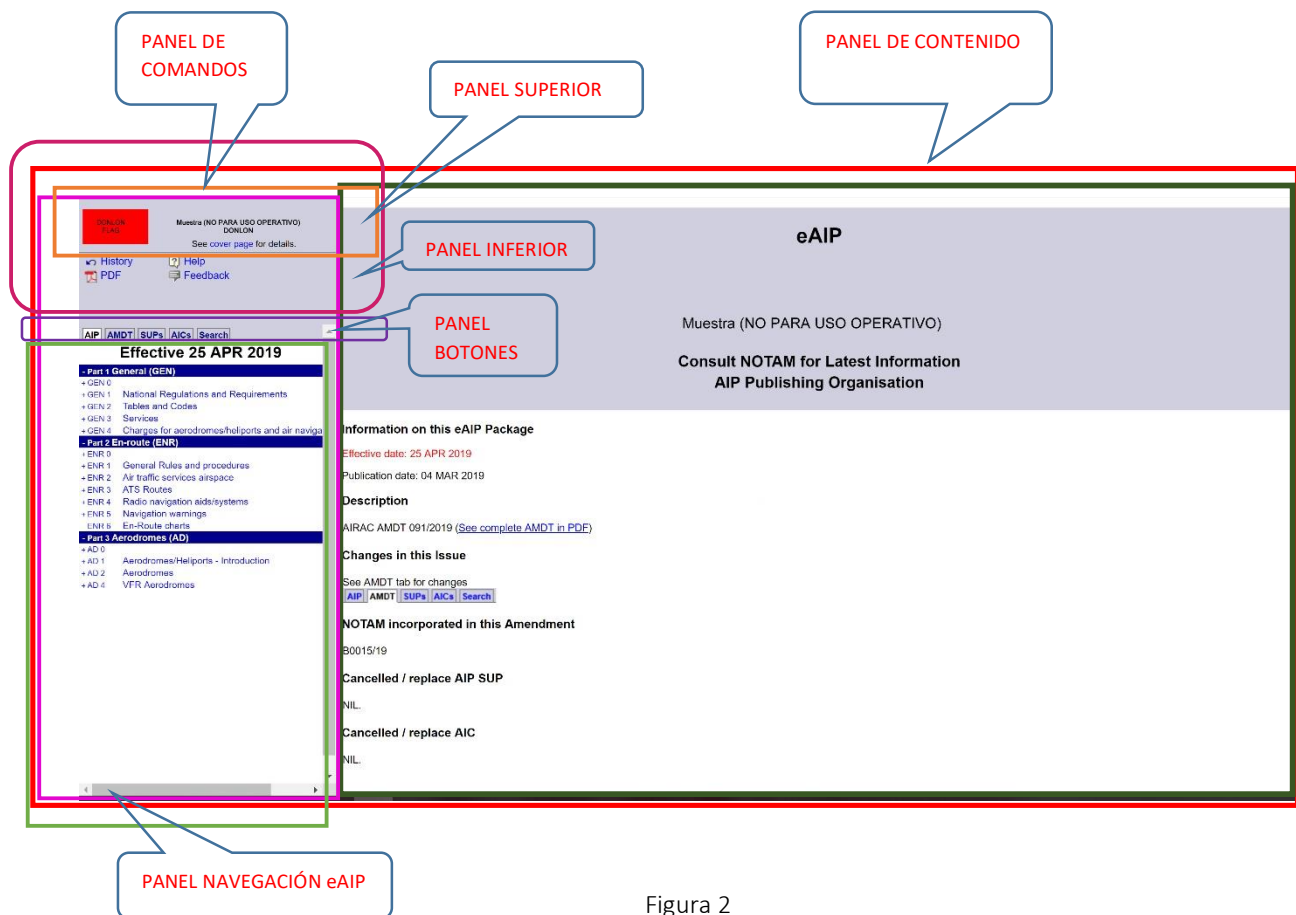


Figura 2

El panel de comandos de la ventana e-AIP contendrá el menú e-AIP, que comprende dos paneles, el panel superior y el panel inferior.

El panel de navegación de la ventana e-AIP contendrá el menú de navegación para el e-AIP.

El panel Contenido de la ventana e-AIP contendrá la portada de la e-AIP cuando el e-AIP se abre inicialmente.

El panel Contenido de la ventana e-AIP contendrá el contenido relevante de la e-AIP cuando son seleccionados por el usuario en el panel de navegación.

5. VENTANA ACTIVA e-AIP

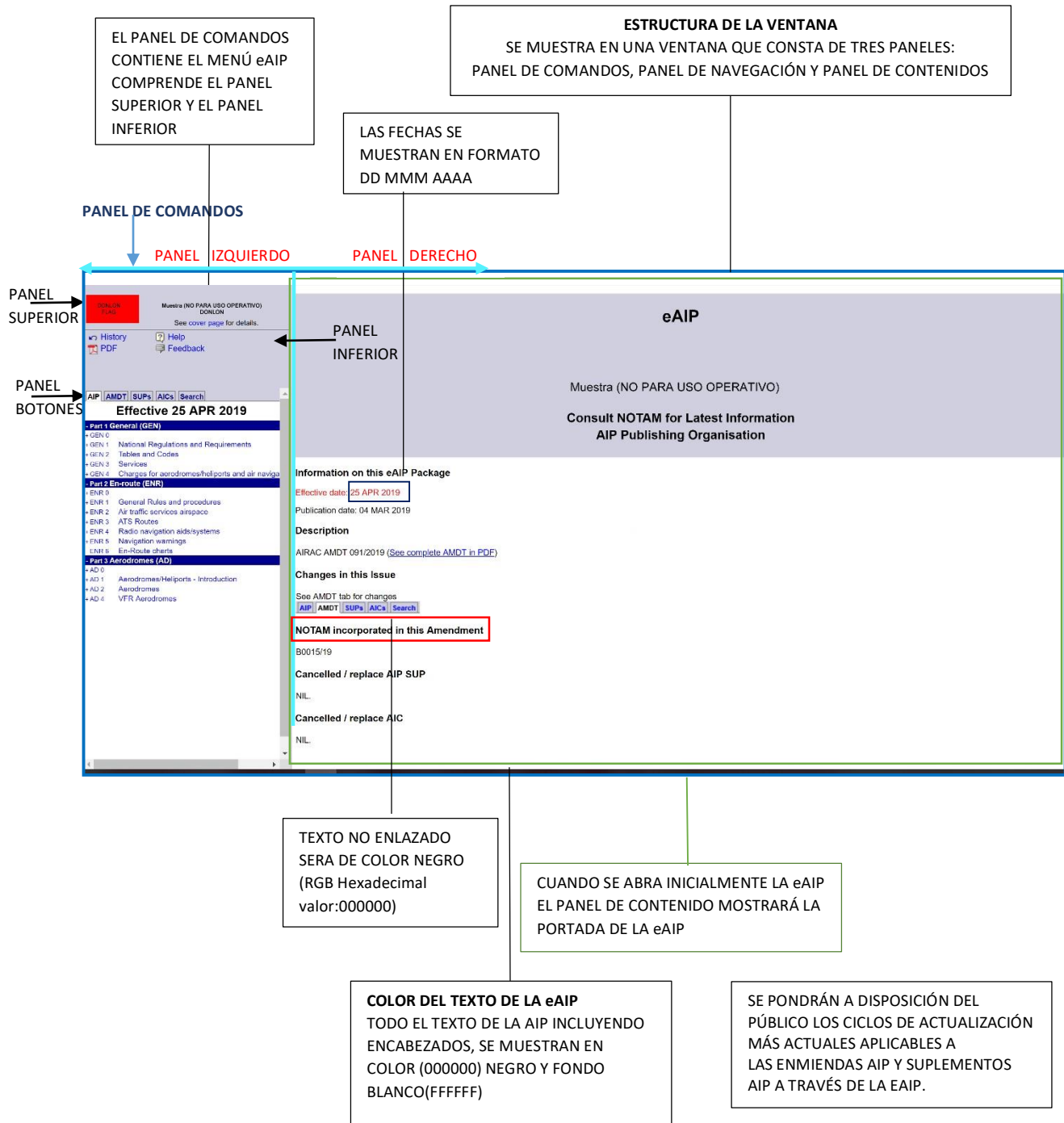


Figura 3

Fuente: Documento de Eurocontrol-Especificación para la publicación electrónica de información Aeronáutica (e-AIP)

6. PANEL DE COMANDOS

El panel de comandos de la ventana e-AIP contendrá el menú e-AIP, que comprende dos paneles, el panel superior y el panel inferior.

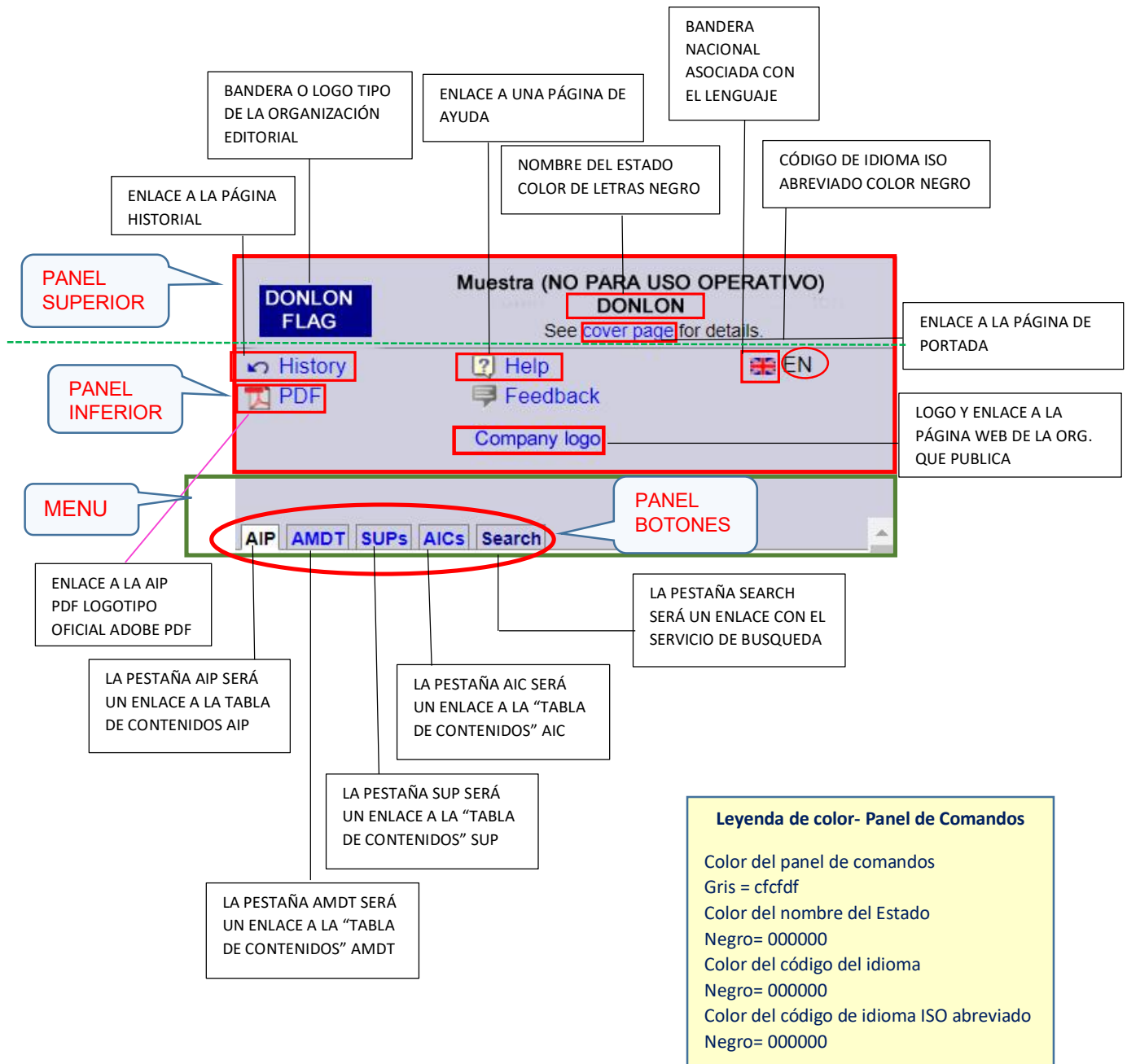


Figura 4

7. PANEL DE NAVEGACIÓN

El panel de navegación de la ventana e-AIP contendrá el menú de navegación para el e-AIP.

Requisitos asociados con la tabla de contenido.

The screenshot shows a navigation menu for the e-AIP system. At the top, there are tabs for 'AIP', 'AMDT', 'SUPs', 'AICs', and 'Search'. Below these is a date indicator: 'Effective 25 APR 2019'. The menu is organized into three main parts:

- Part 1 General (GEN)**
 - + GEN 0
 - + GEN 1 National Regulations and Requirements
 - + GEN 2 Tables and Codes
 - + GEN 3 Services
 - + GEN 4 Charges for aerodromes/heliports and air naviga
- Part 2 En-route (ENR)**
 - + ENR 0
 - + ENR 1 General Rules and procedures
 - + ENR 2 Air traffic services airspace
 - + ENR 3 ATS Routes
 - + ENR 4 Radio navigation aids/systems
 - + ENR 5 Navigation warnings
 - ENR 6 En-Route charts
- Part 3 Aerodromes (AD)**
 - + AD 0
 - + AD 1 Aerodromes/Heliports - Introduction
 - + AD 2 Aerodromes
 - + AD 4 VFR Aerodromes

Annotations and requirements are provided in several boxes:

- Las cabeceras azules en las 3 partes de la AIP (GEN-ENR-AD)**: Points to the blue headers for each part.
- Las secciones dentro de GEN-ENR-AD son un enlace a sub secciones de la AIP**: Points to the expandable items.
- LA VISUALIZACIÓN DE TODOS LOS HIPERVÍNCULOS SE BASARÁ EN LA CONFIGURACIÓN DEL NAVEGADOR DEL CLIENTE.**: A general note about link visibility.
- CUANDO NO ESTÁ DESPLEGADO SE MUESTRA EL SIGNO DE (+) PERMITE AMPLIAR INFORMACIÓN**: Points to the '+' symbols next to the items.
- Indica Fecha efectiva de la AIP**: Points to the 'Effective 25 APR 2019' date.
- EL USUARIO SERÁ CAPAZ DE CAMBIAR LAS RELACIONES DE OCUPADOS POR LOS PANELES DE LA IZQUIERDA Y DE LA DERECHA DE LA VENTANA e-AIP MOVIENDO EL SEPARADOR.**: Points to the vertical separator bar on the right.
- LAS BARRAS DE DESPLAZAMIENTO SE PONDRÁN A DISPOSICIÓN EN EL PANEL DE NAVEGACIÓN CUANDO EL CONTENIDO EXCEDE EL TAMAÑO DEL PANEL, PARA PERMITIR AL USUARIO VER TODO EL CONTENIDO.**: Points to the scroll bars at the bottom.
- Barras de desplazamiento**: Points to the scroll bars at the bottom.

Figura 5

Fuente: Documento de Eurocontrol-Especificación para la publicación electrónica de información Aeronáutica (e-AIP)

The screenshot shows the e-AIP interface with a navigation menu at the top containing 'AIP', 'AMDT', 'SUPs', 'AICs', and 'Search'. The main content area displays a table of contents for the AIP, effective 25 APR 2019. The table is organized into three parts: Part 1 General (GEN), Part 2 En-route (ENR), and Part 3 Aerodromes (AD). Each part contains a list of sections with expandable icons (+).

Effective 25 APR 2019

- Part 1 General (GEN)**
 - + GEN 0
 - + GEN 1 National Regulations and Requirements
 - + GEN 2 Tables and Codes
 - + GEN 3 Services
 - + GEN 4 Charges for aerodromes/heliports and air naviga
- Part 2 En-route (ENR)**
 - + ENR 0
 - + ENR 1 General Rules and procedures
 - + ENR 2 Air traffic services airspace
 - + ENR 3 ATS Routes
 - + ENR 4 Radio navigation aids/systems
 - + ENR 5 Navigation warnings
 - ENR 6 En-Route charts
- Part 3 Aerodromes (AD)**
 - + AD 0
 - + AD 1 Aerodromes/Heliports - Introduction
 - + AD 2 Aerodromes
 - + AD 4 VFR Aerodromes

Callout Box 1 (Top): EN EL PANEL DE NAVEGACIÓN DE LA VENTANA EAIP, LA TABLA DE CONTENIDOS AIP INDICARÁ LA FECHA EFECTIVA DE LA AIP, LA CUAL SERÁ DE COLOR NEGRO (RGB HEXADECIMAL VALOR: 000000), ESTILO DE FUENTE NEGRITA. TAMAÑO DE FUENTE DE LA FECHA EFECTIVA SERÁ DE 150% DEL TAMAÑO DE FUENTE PREDETERMINADO

Callout Box 2 (Middle): LAS TRES PARTES DE LA AIP EN LA TABLA DE CONTENIDOS AIP SERÁN RESALTADOS CON CABECERAS AZULES OSCUROS (RGB HEXADECIMAL VALOR: 00008B).

Callout Box 3 (Bottom): EL TÍTULO DE LAS 3 PARTES DE LA AIP SERÁ DE COLOR BLANCO (RGB HEXADECIMAL VALOR: FFFFFF). ESTILO DE FUENTE NEGRITA. EL TÍTULO DE CADA PARTE DE LA AIP CONTENDRÁ UN NÚMERO.

Figura 6

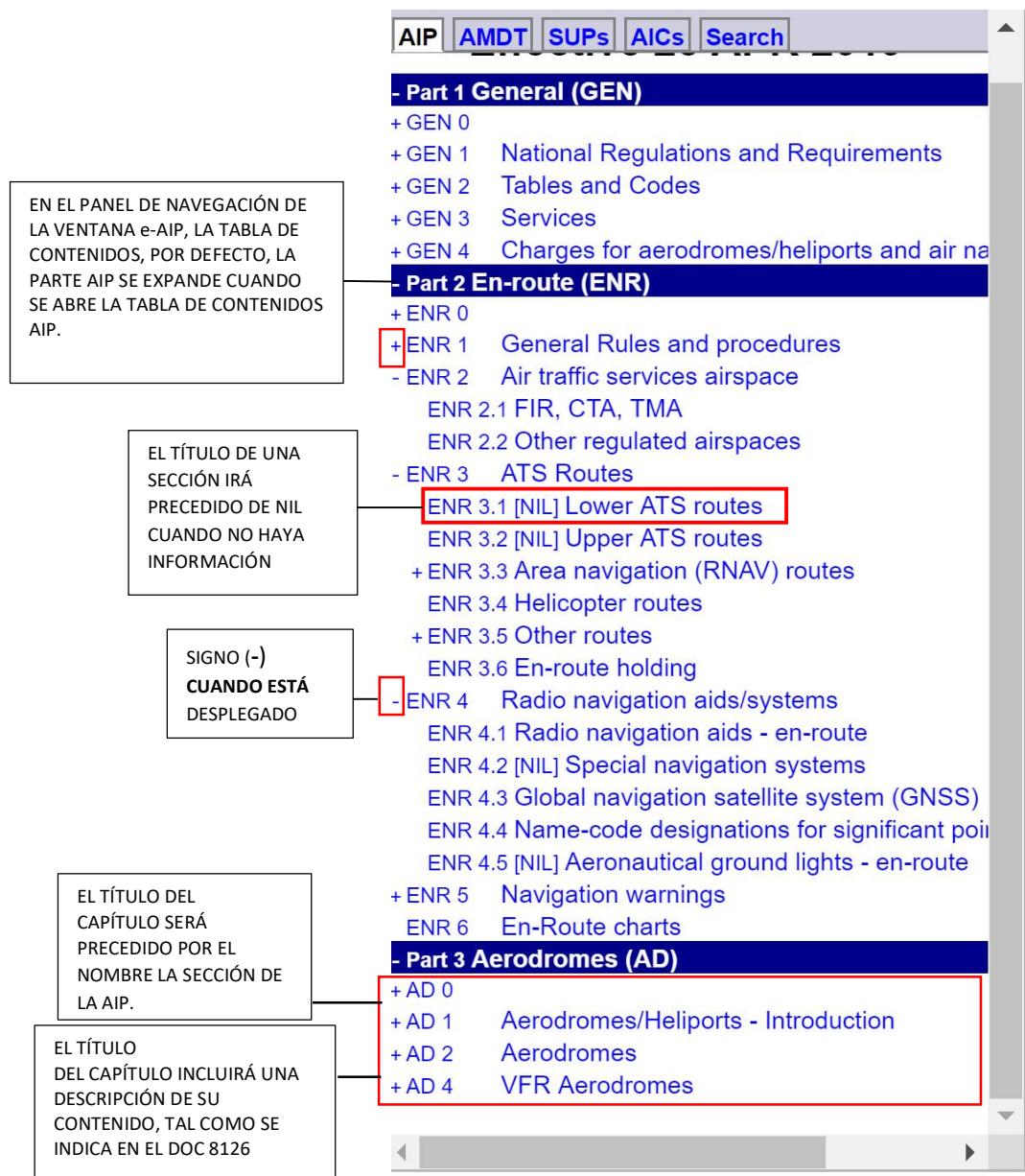


Figura 7

8. PANEL DE CONTENIDO

El panel Contenido de la ventana e-AIP contendrá la portada de la e-AIP cuando el e-AIP se abre inicialmente.

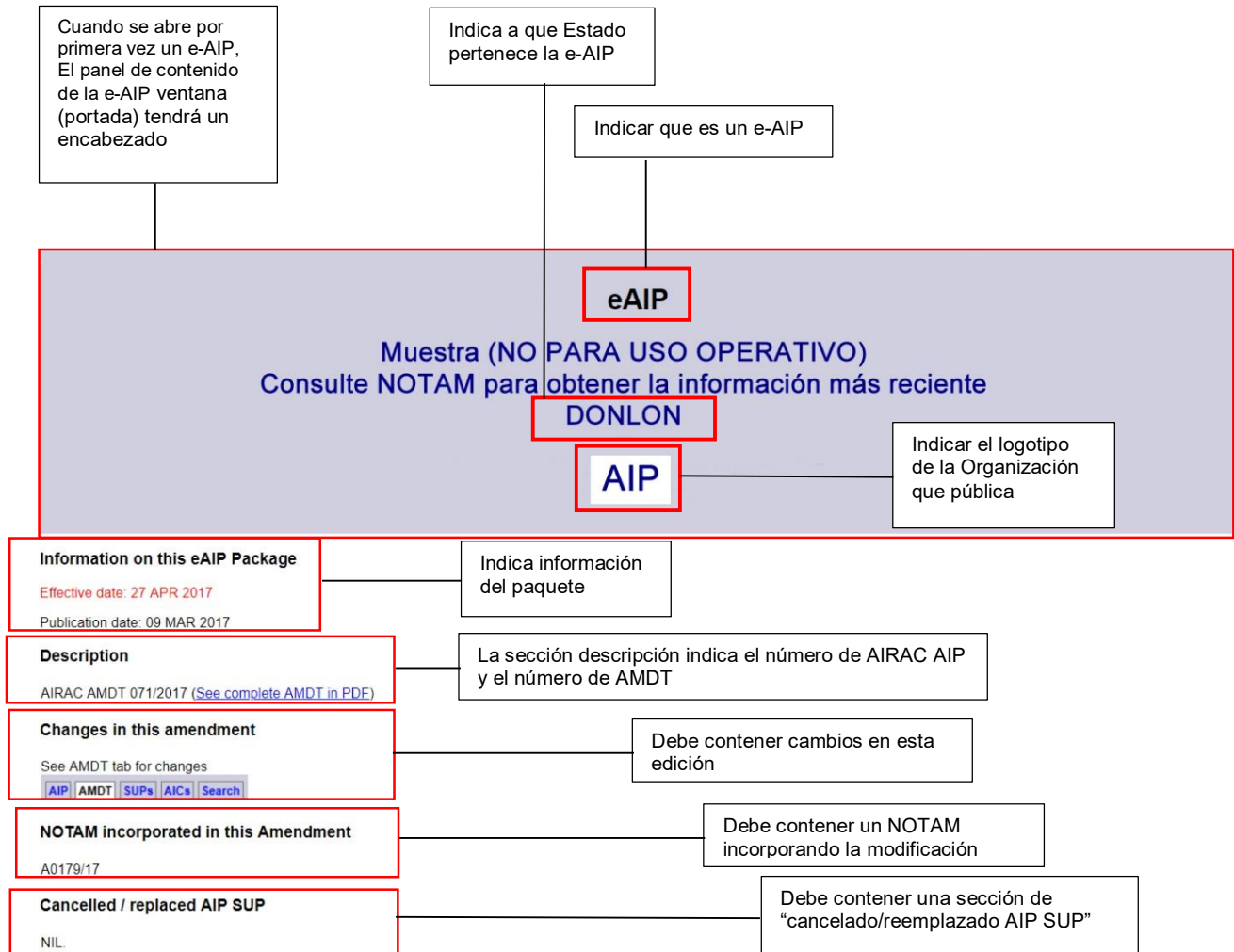


Figura 8

9. SERVICIO DE BÚSQUEDA

Cuando se selecciona la pestaña **SEARCH** debe aparecer una página de búsqueda en el panel de navegación, el cual tendrá un botón de inicio y un botón borrar.

Cada resultado de entrada en el panel de navegación debe ser un **enlace**.

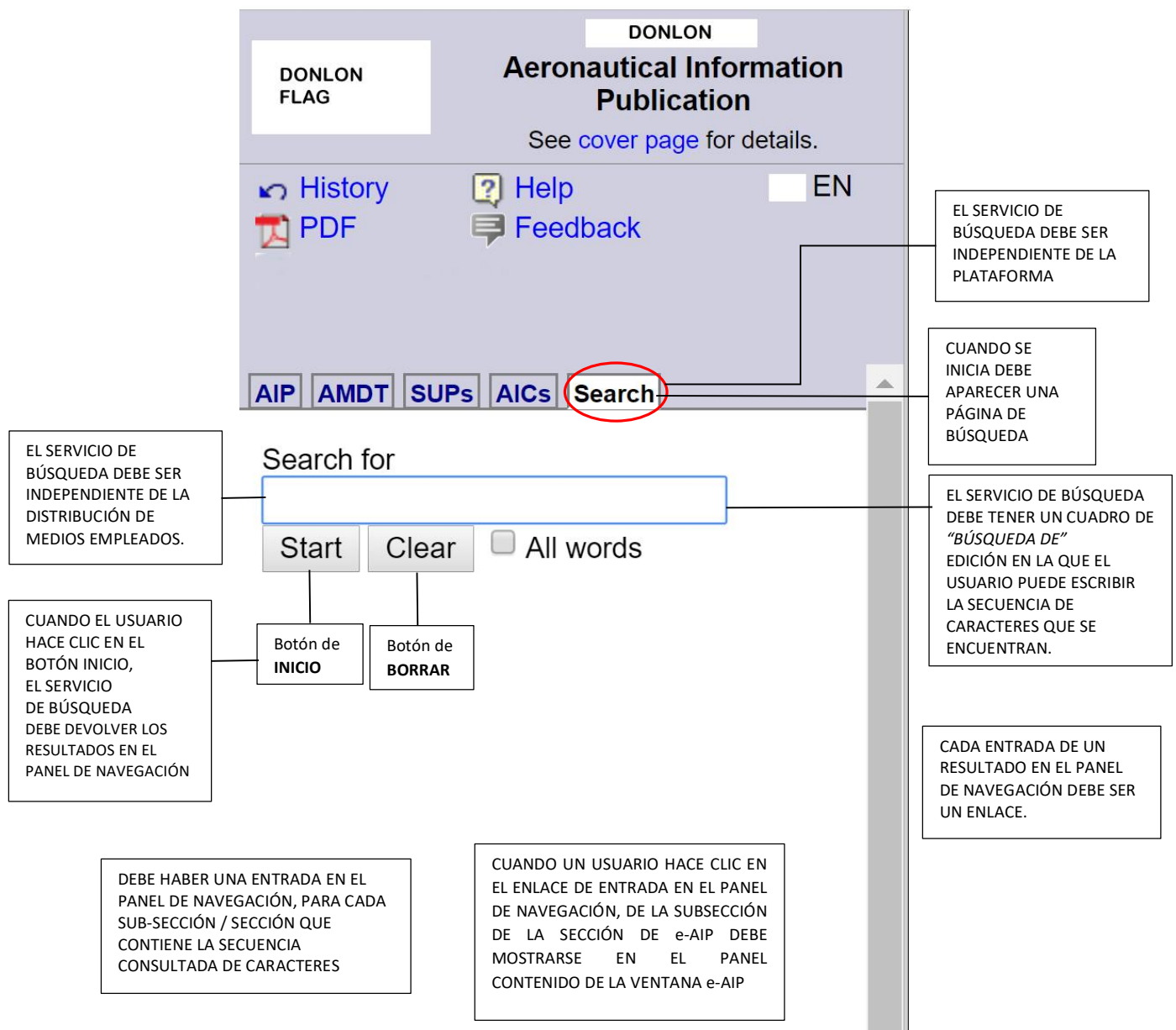


Figura 9

10. HISTORIAL DE LA PÁGINA

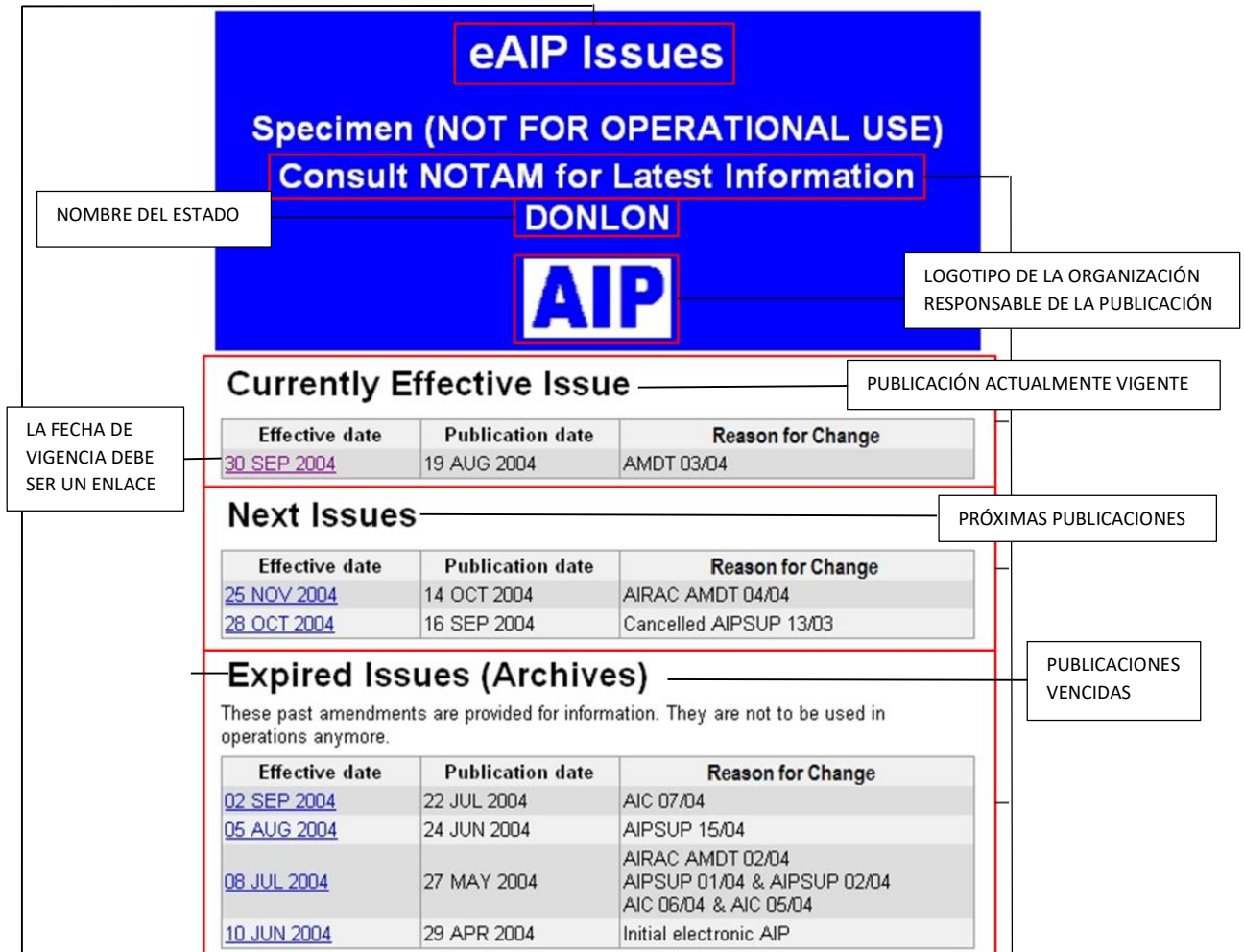


Figura 10

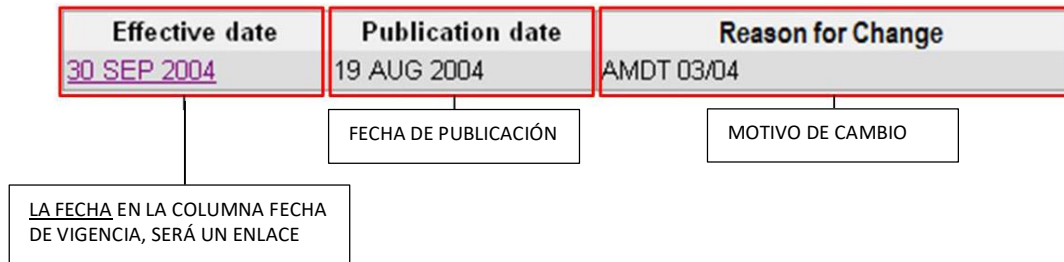
LA PÁGINA HISTORIAL E-AIP INFORMARÁ AL USUARIO QUE CONSULTE NOTAM PARA LA INFORMACIÓN MÁS RECIENTE

LA PÁGINA HISTORIAL E-AIP TENDRÁ EL TÍTULO 'CUESTIONES E-AIP'.

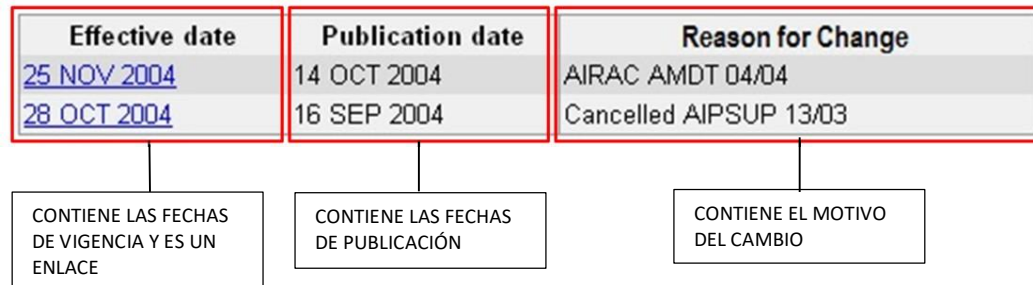
La página Historial e-AIP, la sección Edición, deberá contener:

- Una tabla con una columna Fecha de vigencia
- Una tabla con una columna de fecha de publicación.
- Una tabla con una columna Motivo de cambio.

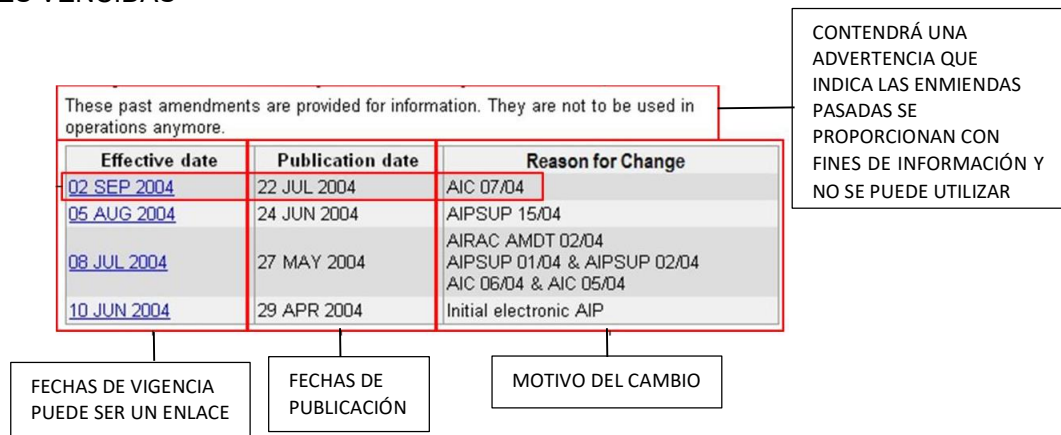
PUBLICACIÓN ACTUALMENTE VIGENTE



PRÓXIMAS PUBLICACIONES



PUBLICACIONES VENCIDAS



11. OPORTUNIDADES DE MEJORA EN LA DISTRIBUCIÓN DE INFORMACIÓN AERONÁUTICA ELECTRÓNICA (e-AIP) EN INTERNET

A continuación, se describen algunas consideraciones importantes para la distribución de la AIP electrónica:

- Para distribuir la AIP en Internet es importante contar con una infraestructura técnica adecuada.
- Analizar el proceso a través del cual se carga el contenido de la AIP electrónica en el Internet, con la finalidad de asegurar la integridad de la información.
- La fecha de corte de la base de datos y la fecha de entrega más reciente no es suficiente para permitir el tratamiento, verificación y validación de la AMDT debido a que el volumen de datos está en constante crecimiento.
- Es recomendable establecer políticas que permitan realizar un análisis de seguridad de la información para adaptar mecanismos que respalden la distribución segura de la AIP electrónica en Internet.
- Instruir al personal AIM en nuevas tecnologías.

Agenda Item 8: Other business

8.1 Under this Agenda item, the Meeting did not analyze any subject and no working papers were submitted.