SAM/AIM/13

INTERNATIONAL CIVIL AVIATION ORGANIZATION
SOUTH AMERICAN REGIONAL OFFICE

THIRTEENTH MULTILATERAL MEETING OF THE SAM REGION FOR THE TRANSITION FROM AIS TO AIM

(SAM/AIM/13)

FINAL REPORT

Lima, Peru, 11 to 15 May 2020

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HISTORY OF THE MEETING

ii-1 PLACE AND DURATION OF THE MEETING

The Thirteenth Multilateral Meeting of the SAM Region for the Transition from AIS to AIM (SAM/AIM/12) was virtually held, from 11 to 15 May, 2020.

ii-2 OPENING CEREMONY AND OTHER MATTERS

The Secretariat welcomed all State and Industry Delegates to the Virtual Meeting. It has been highlighted that the condition of the COVID-19 Pandemic forces us to reinvent ourselves and seek means that allow us to carry out the follow-up of the implementations and capacity building in the AIM area.

The Secretariat has sought alternatives to continue supporting the States in the preparation of the implantation of Phase II of the "Road Map for the transition from AIS to AIM", and to follow up on the Implementation Plans of the Management of Aeronautical Information; which has undergone an unprecedented global change of scenario, considered using the technologies applicable to real-time communication in multimedia support and carried out the present meeting in virtual mode.

The Meeting coincided that carrying out a virtual meeting is quite a challenge, but at the same time it has been a great opportunity to achieve greater participation by the delegates of all the States of the SAM-AIM Region who, due to economic resources, are limited to a Face-to-face meeting.

After observing that the planned agenda has been developed in this modality, and the participation of the States and the invited experts has been excellent, both orally, visually and documentary; all in real time, the Meeting agreed that once the current contingent crisis generated by the SARS2-CoV had been overcome, priority should be given to face-to-face meetings, and at the same time continue this virtual modality, simultaneously, for which the organization of the event will determine the rules and scope of the proposed new virtual part, guaranteeing the normal distribution of documents, presentations, chat for virtual participants, and recordings of the corresponding sessions.

The Meeting is grateful for the contribution made by the industry (GroupEAD, Everis, LIDO, M-AIS, JEPPESEN and IFAIMA), through presentations that mentioned the e-TOD, e-AIP, Digital Data Set, Data Catalog, Strategies for the transition to e-AIP and SWIM, SWIM, AMDB and Drones).

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

The Meeting agreed to hold two daily sessions, one from 08:30 to 11:00 and the other from 13:00 to 15:00, with adequate breaks and to work as a Single Committee and in Working Groups.

In view of the realization in a virtual format, a President has not been elected for the Meeting.

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

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: AIM Global Strategy and AIM components of the GANP/6

Agenda Item 2: Follow-up to the implementation of Amendment to Annex 15 – Aeronautical Information Services and PANS-AIM and conclusions of previous Meetings

Agenda Item 3: Workshop on e-AIP and SWIM

Agenda Item 4: Follow up to the implementation of the Quality Management System in AIM units (QMS/AIM)

Agenda Item 5: Follow-up to e-TOD implementation plans

Agenda Item 6: NOTAM Contingency Plans, AIM Deficiencies and ICARD System

Agenda Item 7: Other business

ii-6 ATTENDANCE

The Meeting was attended by 66 participants of 12 SAM States (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Panamá, Paraguay, Peru, Uruguay and Venezuela), 2 FAA delegates, as well as one international organisation, and 8 industry representatives.

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

Organización de Aviación Civil Internacional / International Civil Aviación Organization
Décimo Tercera Reunión Multilateral AIM de la Región SAM para la transición del AIS al AIM (SAM/AIM/13) / Thirteenth Multilateral Meeting of the SAM Region for the transition of AIS to AIM (SAM/AIM/13)
(Lima, Perú, del 11 al 15 de mayo de 2020 / Lima, Peru, 11 to 15 May 2020)

Lista de Participantes / List of Participants

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ARGENTINA
1. Héctor Marcelo Cancinos
2. Verónica Villarruel
3. Betsabe Islas
4. Marisa Bertani
5. Jose Luis Saucedo
6. Daniel Alejandro Montoto
7. Javier Trigo
8. Luis Alfonzo
9. Silvia Beatriz García
10. Joaquín Fagone
11. José Luis Carballo
12. Paola Andrea López

BOLIVIA
13. Cinthia Gabriela Sánchez
14. Luis Fernando Torrez Zapata
15. Mirjan Michelle Mora Dávila
16. Gregorio Aliaga

BRASIL
17. Claudius Sany Soares Cardoso
18. Cristiane De Barros Pereira
19. Alessander De Andrade Santoro
20. Cesar Fagundes Monteiro
21. Axel Vianna Cezar
22. Sérgio Marcos Da Rocha Corrêa
23. Marco Antonio Monte de Santana
24. Jussan Knuppp Ribeiro
25. Murilo A. Loureiro

CHILE
26. Pablo A. Pérez
27. Nelson O. Aravena

COLOMBIA
28. Germán Vélez Garzón
29. Gladys Mercedes Roa De la Cruz
30. Pedro Esteban Alvarez
31. Mauricio Díaz Villabona

ECUADOR
32. Anyelo Acosta Arroyo
33. Marcelo Jácome
34. Alexander Guncay
35. Carlos Delgado
36. Patricio Orbe
37. Luis Simbaña

GUYANA
38. Brian Jeffrey
39. Tyrone Persaud

PANAMÁ
40. Dalys Rodríguez Valdes
41. Gregorio Mesquita
42. Daniel de Ávila
43. William Santamaria

PARAGUAY
44. Antonio Insfrán Mareco (beca)
45. Lidia Cáceres Ocampos

PERÚ
Paulo Vila Millones
Sara Siles La Rosa
Carlos Bohórquez Castellares
Jorge Ráez Ancaya
Fredy Pimentel Enciso
Walter Peceros López
Federico Vásquéz Cáceres
Miriam Gonzales Guerra
Sergio Rojas Hidalgo
Evelyn María Canches Iparraguirre
Mirtha Ángeles Reque
Ever Santiago Ponte Vergaray
Abel Pasache Justo
Karina Calderón Yactayo

URUGUAY
46. Juan José González Pose
47. Mario Dávila
48. Graciela Monzillo
49. Gabriel Falco
50. Alejandra Ferreiro

VENEZUELA
51. José Ramón Pacheco
52. Andrea Alfonzo Meza
53. Zumila Colmenares Montilla

ESTADOS Unidos
54. Raúl Chong
55. George P. Sempeles

EAD Group
56. Henry Cáceres

EVERIS
57. Ana Belén Pozo
58. José Rodríguez
59. Pablo Menéndez-Ponte Alonso

IFAIMA
60. Luis Fernando Cruz Alburqueque
61. Iliana Sánchez Navarro

JEPPESEN
62. Jaime Doherty Serra

LH Systems
63. Jonas Berli

MANAGED AIS
64. Antonio José Locandro Herrera

THALES
65. Jerome Ricard

OACI
66. Jorge Armoa

Agenda Item 1: Global AIM strategy and AIM component of GANP/6

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

- WP/02 – Global AIM projects *(presented by the Secretariat).*
- WP/03 - Global Air Navigation Plan, 6th edition – AIM-related aspects *(presented by the Secretariat)*
- WP/04 – Planning of CAR/SAM e-ANP Vol. III for AIM of the SAM Region *(presented by the Secretariat)*
- IP/04 - Progress of the Bolivarian Republic of Venezuela motivated to the acquisition of an integrated aeronautical information system based on AIXM
- IP/05 - Generation of the eAIP through the Integrated Aeronautical Information System *(presented by Venezuela)*

1.2 Under this agenda item, the Meeting agreed that the Global AIM strategy was intended to sensitise States on the impact of a delayed implementation of the digital phase of AIM on ICAO initiatives.

1.3 The Secretariat insisted on the need to sensitise all stakeholders on the benefits to be derived by air navigation services from information management in a fully electronic environment.

1.4 The Meeting supported the conduction of national workshops on the importance of migrating from a product- to a data-based approach**.**

1.5 The Secretariat made a presentation on AIM aspects contained in the sixth version of the Global air navigation plan (GANP/6). It noted that the new version of the GANP had restructured the ASBU framework, moving from an approach based on performance improvement areas (PIAs) to a "connecting threads" approach.

1.6 It also confirmed that, according to this "connecting threads" approach, ASBU modules were shown as modules-blocks-elements.

1.7 The Meeting deemed it important for States that had not yet done it to develop a national AIM implementation plan based on the modules and elements contained in the GANP/6. This plan should be endorsed by the top level of the civil aviation authority and the AIS provider, to reflect their commitment with the plan.

1.8 The Meeting agreed to schedule a teleconference on 31 October 2020 to follow up on paragraph 1.7.

1.9 The Meeting also discussed the development of the AIM section in Vol. III of the Caribbean and South American Regional Air Navigation Plan (CAR/SAM e-ANP).

1.10 The Secretariat noted that, according to Recommenation 4.3/1 item d) of the Thirteenth Air Navigation Conference, Vol. III should be drafted in accordance with the Six-Step Method shown in ICAO Doc 9883.

1.11 Peru has reported the current status as well as the planning in relation to the implantations related to the DAIM and SWIM Module. Details can be found in IP/11, Item 1 of the report.

1.12 Additionally, Venezuela has reported progress in relation to the AIXM and e-AIP

implementations. Details can be seen in IP/04 and IP/05 presented by the aforesaid State.

1.13 Likewise, Panama reported that it has already published the eAIP in digital format on the WEB, but it has not been possible to update it with the AMDT of 30 March due to COVID-19.

1.14 Guyana reported that, in relation to the general transition from AIS to AIM, the Central American Air Navigation Service Corporation (COCESNA) has carried out a gap analysis. The report of this work is still under review by the Guyana Authority. However, the progressive implementation of the recommendations of this analysis is ongoing.

1.15 The Meeting worked in groups on a SWOT analysis of AIM for the SAM Region. The results of this work are shown in **Appendix A**.

ICAO UNITING AVIATION

APÉNDICE A LA CUESTION 1
ANÁLISIS FODA DEL AIM EN LA REGION SAM

Lima, 11 -15 de Mayo del 2020

Fortalezas

1. **Las mayorías de los estados tienen identificados las pasos y actividades necesarios para proceder a una implementación.**
2. **Estados con certificaciones en calidad ya alcanzadas.**
3. **Concientización del personal AIS con respecto a las tecnologías de información aeronáutica digital.**
4. **Talleres y seminarios que se han brindado en la región SAM con foco en la interoperabilidad de los sistemas.**
5. **Estados con Bancos NOTAM ya implementados.**
6. **Estados con cartas de acuerdo (SLA) realizadas con las fuentes de datos aeronáuticos.**
7. **Algunos estados con planes de navegación aérea ya desarrollados.**
8. **Algunos estados han comenzado con la validación y creación de catálogos de datos aeronáuticos.**

Oportunidades

1. Disposición a nivel internacional de herramientas y sistemas automatizados para el uso y organización del AIM, los cuales se encuentran probados y en funcionamiento, su implementación podría hacerse en el menor tiempo posible.

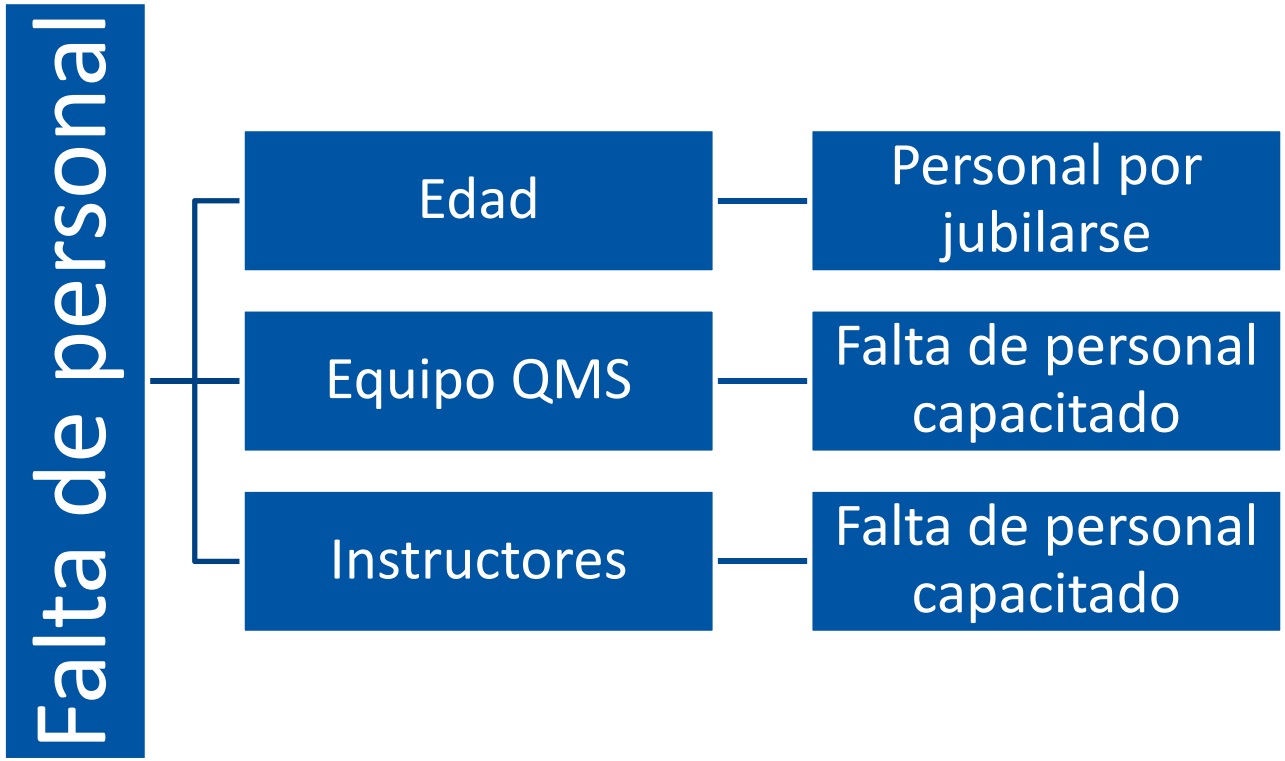
2. Existe Documentación internacional normativa al alcance y un Catálogo de Datos basados en el Doc.10066 que coadyuvan a estandarizar los parámetros de medición y control del AIM.

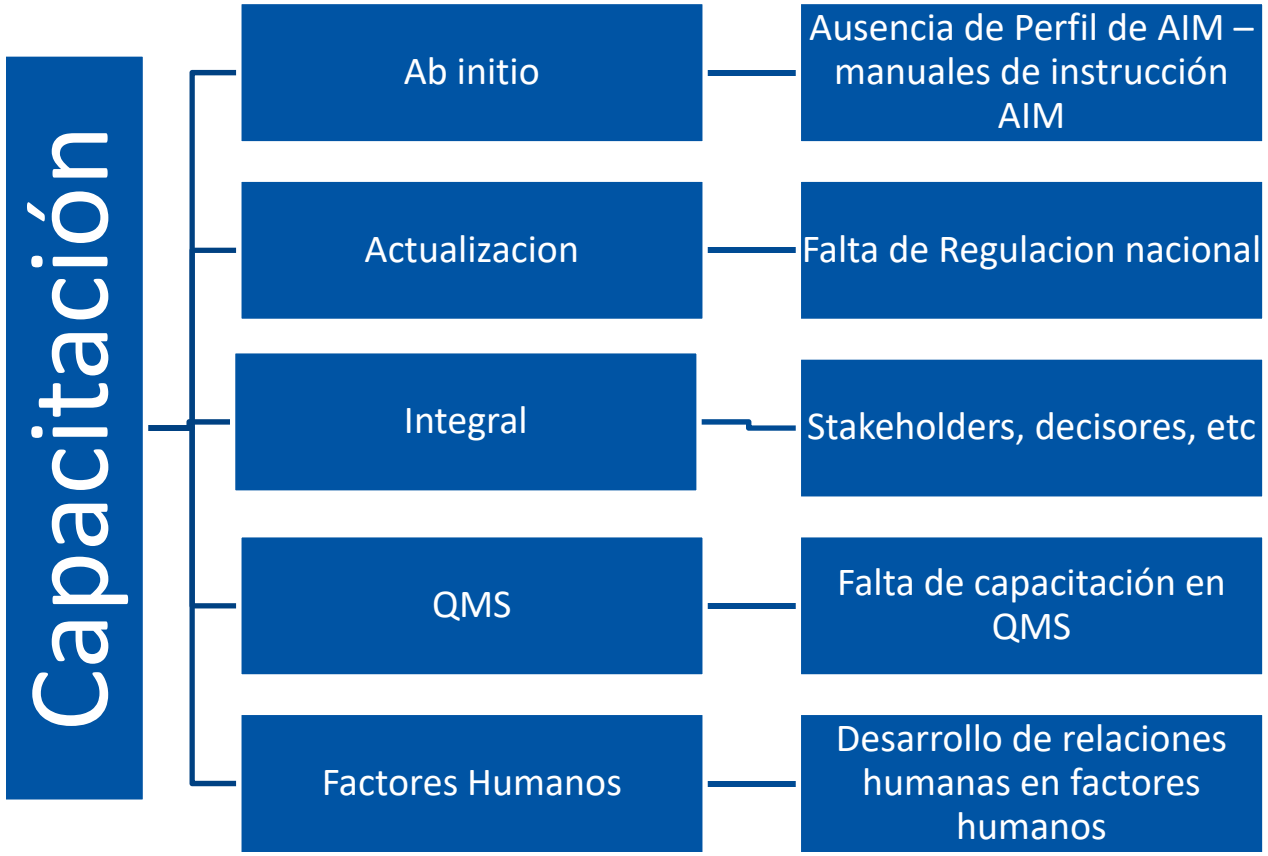
3. El incremento de operaciones aéreas de última generación (sistemas y tecnología de punta a bordo de las aeronaves) obliga de manera consecuente a los Estados, a aumentar los niveles de precisión, integridad y calidad de todos los paquetes de información/datos que sean publicados.

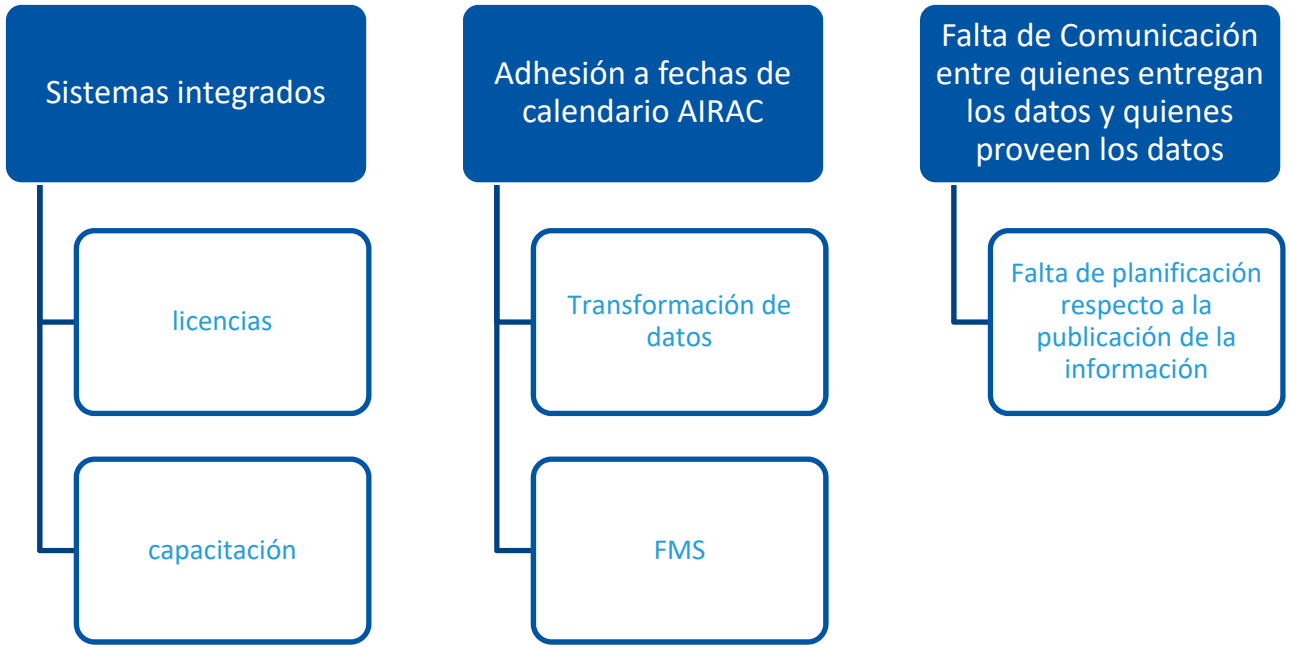
4. La evolución de las tecnologías de la información y comunicaciones a nivel mundial, nos deben servir para incrementar las Reuniones tipo SAMAIM virtuales y así, eliminar las distancias y limitantes económicas que impiden que todos los países de la región, participen y se apropien de los últimos cambios y avances relacionados con el enfoque holístico del AIM en la región. (propuestas como creación de chats, grupos wspps, reuniones zoom, Microsoft teams, etc propician el acercamiento)

5. Establecer canales directos de información y comunicación de última tecnología entre las diferentes organizaciones AIM de la Region, para facilitar el aprendizaje y adoptar etapas superadas de la transición hacia el AIM, con base en los fundamentos Know-How de otros países.

DEBILIDADES DE LA IMPLANTACION DEL AIS AL AIM EN LA REGION SAM


Falta de personal
Edad
Personal por jubilarse
Equipo QMS
Falta de personal capacitado
Instructores
Falta de personal capacitado


Capacitación
Ab initio
Ausencia de Perfil de AIM – manuales de instrucción AIM
Actualizacion
Falta de Regulacion nacional
Integral
Stakeholders, decisores, etc
QMS
Falta de capacitación en QMS
Factores Humanos
Desarrollo de relaciones humanas en factores humanos


Sistemas integrados
licencias
capacitación
Adhesión a fechas de calendario AIRAC
Transformación de datos
FMS
Falta de Comunicación entre quienes entregan los datos y quienes proveen los datos
Falta de planificación respecto a la publicación de la información

- 1. **Falta de personal por edad, (Argentina, Ecuador, Bolivia, Perú)por competencias adecuadas. Ecuador ha suspendido su proceso de reclutamiento de personal debido a la coyuntura nacional.**
- **2. Originadores – debilidades relacionadas con las agencias que integran la cadena de información aeronáutica.**
- **3. Problemas de capacitación de gerencia**
- **4. Problemas de capacitación a nuevos aeropuertos.**
- **5. Problemas de capacitación por falta de licencias de sistemas integrados.**
- **6. Falta de capacitación integral para proveedores y personal**
- **7. Falta de capacitación respecto al AIM (integral), énfasis en QMS**
- **8. Falta de un perfil del AIS digital**

9. Falta de comunicación entre los originadores de datos y los proveedores de datos

10. Falta de perfil para nuevo personal AIS con proyección al AIM

11. Falta de una adecuada adhesión a las fechas del calendario AIRAC. Es necesario respetar las fechas de entrada en vigor de los datos aeronáuticos.

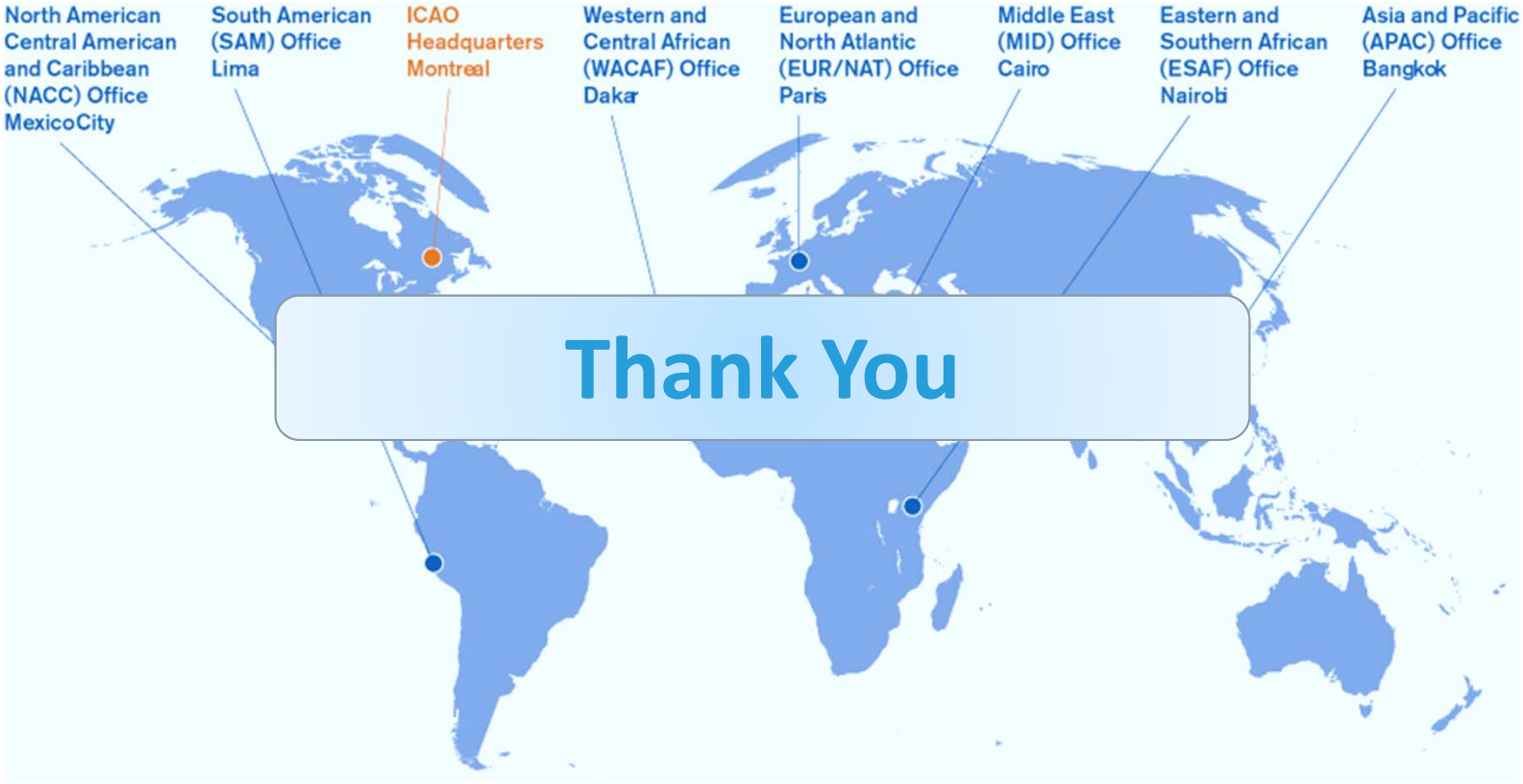
12. Falta de planificación en la publicación de los datos aeronáuticos

13. Falta de desarrollo de relaciones humanas en factores humanos

14. Falta de presentación de gráficos o cartas estandarizados.

Amenzas

1. Alto costo en la adquisición y configuración de la tecnología necesaria
Carencia de presupuesto.
2. Constante cambio de tecnología
3. Inversión a largo plazo se ve comprometida.
4. Avance de la aviónica / industria
5. La industria se desarrollo en ritmo superior, con riesgo de dejar demorado/desfasado a los Estados
6. Políticas de los Estados en relación a los cambios en las autoridades, en forma cíclica.


North American Central American and Caribbean (NACC) Office MexicoCity
South American (SAM) Office Lima
ICAO Headquarters Montreal
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) Office Bangkok

Thank You

Agenda Item 2: Follow-up to the implementation of the Amendment to Annex 15 – Aeronautical Information Services, PANS-AIM and the conclusions of previous meetings

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

- WP/05 - Amendment 39-B and Amendment 41 to ICAO Annex 15 *(presented by the Secretariat)*

1.2 The Meeting reviewed the status of implementation of Amendment 41 to Annex 15, PANS-AIM, Amendment 39-B, and the conclusions of previous meetings.

1.3 Regarding the conclusions of previous meetings, the Secretariat informed of their follow-up in October 2019. The results of this follow-up are shown in **Appendix A**.

1.4 Regarding Amendment 40 and PANS-AIM, the Meeting discussed the implementation of digital data sets and data catalogues. In this regard, the presentations by GroupEAD and Uruguay provided important information on their significance and the road to follow for their implementation.

1.5 Regarding Amendment 39-B, the Secretariat recalled that the date of implementation was 5 November 2020.

1.6 In this sense, the States reported the following:

- **Argentina**: The RAC 153 was revised and the PROGEN AIM modified to include the requirements of the new SNOWTAM format. Within this context, ANAC regulations were also modified. A circular was drafted to show the modification of the SNOWTAM format, but the process was not completed due to the COVID-19 pandemic.

- **Bolivia**: A circular would be issued for the aeronautical community on the application of SNOWTAM definition and format. Likewise, the service provider and the aerodrome operator would be trained on regulatory implementation and the issuance of SNOWTAMs.

- **Brazil**: Brazil would not implement the new SNOWTAM format because there is no snow in Brazilian territory. Regarding frost and water stagnation, they would be reported in the NOTAM format. The difference would be reported and published in the ICAO EFOD system;

- **Chile**: Has provided training on the new formats through the e-learning system. An advisory circular was drafted, regulations were updated and work was underway on the AMHS format with the CNS area;

- **Colombia**: Colombia would not implement Amendment 39-B because they did not have the phenomena listed in the amendment. The difference would be published.

- **Ecuador**: Quiport and MET were contacted three months ago. Due to the COVID-19 pandemic, the processes are paralyzed. In conversations with AIM Management for the preparation of a virtual workshop. The application will be for 2020;

- **Guyana**: Information on stagnant water had been published through NOTAM. The difference with this amendment would probably be reported.

- **Panama**: Meetings with the MET area. No stagnant water present. Reporting in the NOTAM format was being analysed, in which case a difference would be filed.

- **Paraguay**: Training for AGA/MET/ AIS staff has been planned. This training was postponed due to the prioritization of the acquisition of the AIXM software that was finally given. Training has been rescheduled for June/July. In addition, there will be a respective talk with CNS regarding the SNOWTAM format. It is estimated that the deadlines of amendment 39B will be met;

- **Peru**: The Peruvian State has prepared the project to update RAP 315, aligned to amendments 41 of annex 15 and document PANS AIM 10066, which includes the new SNOWTAM requirements, pending publication with an expected date in the month of September 2020. The Aeronautical Information Service Provider has programmed in the AIS personnel update course (August-September) the application of the amendments in Annex 15. It will be carried out between the Authority and the Service Provider working tables, to implement amendment 39B of Annex 15;

- **Uruguay**: Coordination completed and optimistic about readiness for the implementation of the new format by the established date.

- **Venezuela**: Coordinations are in the area of AGA - General Management of Aviation Safety. The integrated aeronautical information system has the SNOWTAM format, which will be used when appropriate. Training of AIM personnel on the format. Furthermore, the CNS area is working to agree on the AMHS formats

1.7 The Secretariat urged States to do their utmost to meet the date of implementation of the new SNOWTAM format.

APPENDIX A

Review the implementation status of the SAM/AIM/12 Conclusions

1.1 After completing the introduction of the participants, the Meeting went on to consider Agenda Item 1 of the teleconference held in October 2019. The Secretariat presented the Conclusions issued by SAM/AIM/12, which are shown in this part of the report as Appendix A.

1.2 When considering the Conclusions, the following comments were collected:

1.2.1 **Argentina**: Regarding Conclusion 12/1, in item a, Workshops have been carried out with interested parties and authorities. Thanks to these workshops, it has been possible to change the AIS Technician Training Program dictated by CIPE, changing the focus towards the Aeronautical Information Management processes. Likewise, the National Regulations have been updated, changing to a service level certification process for the provider. Regarding the cost-benefit study, it has not been carried out. Regarding Conclusion 12/2, Argentina has had difficulties with the software provided by the IDS company. They are working to solve the situation, but nevertheless the data load has continued, and the digitization process could continue by the end of this year. A consequence of this point is that Argentina currently has its AIP available on a website promoting the use of "zero paper". Also, soon it will launch the application for mobile phones and tablets.

1.2.2 **Brazil**: has complied with all the points of the Conclusions. In fact, the entire aeronautical community, civil aviation authorities, aeronautical users and service providers highlight the importance of AIM in the ATM process in a global context, and the implantations that have accelerated the digitization of aeronautical information services.

1.2.3 **Bolivia:** The focal point reports that, in relation to the first conclusion, Workshops have been held with the parties involved and the authorities. In relation to the cost-benefit study, they have not done it because it is the service provider that must do it. Regarding Conclusion 2, Bolivia, with the exception of the literal referring to ICARD, has not yet been able to implement the steps related to digitization.

1.2.4 **Chile**: Reported that the process for the implementation of the digital stage would begin in 2020. All technical documentation preparation have been completed, and they have been prepared in conjunction with the IT units. With this achievement, the two conclusions of SAM/AIM/11 are met.

1.2.5 **Ecuador**: Has not reported on the current status of implementation of the conclusions of SAM/AIM/11.

1.2.6 **Panama**: Regarding Conclusion 1, neither the Workshops nor the cost-benefit studies have been carried out. With reference to conclusion 2, regarding digitization, it took a step backwards due to the postponement of the launch of the e-AIP for December of this year. However, the aeronautical authority is in the process of preparing a technical specification sheet in order to contract infrastructure, equipment and software in order to implant SWIM;

1.2.7 **Paraguay**: The Normative area has carried out the Workshops with the operational people and the authorities, but no cost-benefit studies have been carried out. With reference to the second conclusion, regarding digitization, Paraguay acquired the software for the implantation of AIXM;

1.2.8 **Peru**: The Peruvian State has developed the project to update RAP 315, aligned to amendments 41 of Annex 15 and document PANS AIM 10066, which includes the new SNOWTAM requirements, is pending publication, scheduled date in the month of September 2020. The Aeronautical

Information Service Provider has programmed in the AIS personnel update course (August-September) the application of the changes in Annex 15. It will be held between the Authority and the Service Provider work, to implement amendment 39B of Annex 15;

1.2.9 **Uruguay**: Regarding the Conclusion, workshops have been held with the Directors of the SWIM Areas, but a cost-benefit study has not been carried out. Regarding conclusion 2, Uruguay is in contact with Brazil in order to implement the digitization phase. However, Uruguay has started the process of making all aeronautical data and information available in electronic format in order to work with "zero" paper from March - April 2020, and work it all via web. Regarding the GNSS, they will implement it for Carrasco and later in Laguna del Sauce.

1.2.10 **Venezuela**: Regarding conclusion 1 Venezuela asked the IUAC- INSTITUTO UNIVERSITARIO DE AERONAUTICA CIVIL to prepare a workshop where the importance of managing aeronautical information in an electronic environment as a basis for ATM, can be presented. In addition, PANS AIM workshops were held for ASI technical staff at the national level, and the National Regulations have been amended. With regard to conclusion 2, the Venezuelan state in 2019 invested in the Integrated Aeronautical Information System to update its licenses and conducted international training for personnel for each work module. Regarding the same point, and considering the implementation of digitization, the authority has been asked to give priority to the acquisition of an AIXM system, the technical specifications for this year are being updated.

1.2.11 The Secretariat requested documents that demonstrate the completion of the Workshops. These documents may consist of Meeting Minutes, convening document and the Participant List with their respective signatures. The States have agreed to inform and send the documentation requested by the Secretariat.

1.2.12 In the absence of other information or other comments, Item 1 of the teleconference called in October 2019, was closed.

Agenda Item 3: Workshop on e-AIP and SWIM

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

- IP/04 - Progress of the Bolivarian Republic of Venezuela motivated to the acquisition of an integrated aeronautical information system based on AIXM
- IP/05 - Generation of the eAIP through the Integrated Aeronautical Information System *(presented by Venezuela)*
- Presentation PANS-AIM (Digital Data Sets - DDS and Data Catalog) (GroupEAD)
- Presentation on e-AIP (Uruguay)
- Presentation on SWIM (GroupEAD)
- Presentation – Strategies for an effective transition to e-AIP and SWIM (M-AIS)

3.2 The States welcomed the information and implementation strategies referred to in the presentations offered by the delegate of Uruguay and industry leaders.

3.3 The States considered that the information provided on the Digital Data Sets (DDS), Data Catalogs, e-AIP, SWIM will help them to accelerate the implementation processes of the AIM digital phase. They will also consider the effective strategies transmitted by industry benchmarks.

3.4 The States expressed special interest in accessing the recordings, specifically from this part of the Meeting, with the purpose of using them in national awareness workshops on the implementation of the AIM.

Agenda Item 4: Follow-up to the implementation of the quality management system in AIM units (AIM/QMS)

4.1 Under this agenda item, the Meeting analysed the following paper:

- WP/07 – GREPECAS Project G3 *(presented by the Secretariat).*

4.2 The Meeting reviewed aspects related to AIM/QMS implementation in SAM States.

4.3 The Secretariat recalled the status of implementation as reported at the SAM/AIM/12 meeting. Likewise, in a follow-up teleconference in October 2019, the Secretariat had collected information on implantation in those States that had not yet completed the process.

4.4 According to the information collected, at that time, the States that had not yet completed the process were: Argentina, Bolivia, Colombia, Ecuador, Guyana, Suriname, and Venezuela.

4.5 In this regard, the States provided the following information:

a) **Argentina**: In relation to what is detailed in WP/07, no progress has been made due to the change of the ANAC Authority, which leads to a reformulation of the processes. Additionally, the contingency of the COVID-19 pandemic has delayed the implantations;

b) **Bolivia**: In relation to what had been reported in 2019, they were currently in the fifth phase of the plan developed with the service provider. Implementation was scheduled to be completed in November of this year, to then proceed with the certification process. An analysis would be conducted with the provider to see the feasibility of meeting this deadline, but probably it would be deferred until December 2020 or January 2021.

c) **Colombia**: The IP submitted by the State described the action taken for QMS/AIM implementation. The process is under review and socialization with all information providers and they are working under the advice and supervision of the Secretary of Aviation Safety, to guarantee the articulation and regulatory compliance of the process within their entire organization. If all the steps were completed, the Certification Audit would be requested by July 2021;

d) **Ecuador**: Currently working on the process with the planning area, in order to complete the implementation for the AIM, MET, and ETAC areas. A first stage had been defined, but the dates or the status of implementation could not be specified due to the pandemic.

e) **Guyana**: Working on the adaptation of the documentation and training of personnel on the requirements of the standard. An introductory seminar on the requirements for ISO 9001:2015 was conducted by the Guyana National Bureau of Standards (GNBS) which is the national regulatory body for standardisation in Guyana for AIS staff. The national bureau of standards also did a consultancy for the creation of a Quality Manual System Manual. Top management has created several editions of the QMS manual for review by our Air Navigation Services (ANS) Inspectorate. The latest edition is currently with the inspectorate at ths time awaiting review. However due to the COVID-19 outbreak we cannot definitively say when that will be done as such we are using November as a tentative date for its implementation. The idea is progressive implementaiton of

approved portions of the manual rather than awaiting an overall approval, in this way the process will be a continuous one.. Expecting to have the documentation ready by November 2020.

f) **Venezuela**: With the unification of the AIS and COM services, a plan was drafted for the restructuring of processes, which included the revision of documents and training. The pandemic, in addition to staff turnover, hindered the execution of this plan. The implementation team continued to work, all documentation was updated to the 2015 version of the ISO 9001 Standard. An e-learning course is currently in preparation to induce new workers in both areas to meet the requirements of the ISO 9001 Standard. IP presented by the State includes more information on the current status of the QMS/AIM implementation.

4.6 The Secretariat requested States to provide information on what had been implemented and certified, and difficulties expected in the re-certification process due to the pandemic. In this regard, the States expressed the following:

a) **Brazil**: Was re-certified in 2019. Expecting a follow-up audit this year.

b) **Chile**: The recertification process must be carried out in August 2021;

c) **Paraguay**: The re-certification audit was to be carried out in April 2020. It was postponed until June, but currently negotiating with the certifying entity to defer it further.

d) **Peru**: The Peruvian State has a quality system of the Aeronautical Information Service ISO 9001:2015, recertified since 2019 with effect until 2022. Internal and external audits are maintained every six months. An External Audit is scheduled by the end of May 2020, which will take place virtually. The QMS team continues to work to meet all the requirements of the Standard and continuous improvement;

e) **Panama**: The re-certification audit was expected in November 2020. Currently working on the bidding process; likely to be postponed until December 2020.

f) **Uruguay**: A follow-up audit scheduled for July 2020. The internal audit could not be conducted due to the pandemic.

4.7 The Secretariat acknowledged the information provided by the States.

Agenda Item 5: Follow-up of e-TOD implementation plans

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

- WP/08 - e-TOD implementation *(presented by the Secretariat)*
- WP/06 – Experience of Brazil in the implementation and use of e-TOD data *(presented by Brazil)*
- IP/02 – Implementation of terrain and obstacle data (e-TOD) in Venezuela
- IP/03 – Progress made in Venezuela in the standardisation of aeronautical charting, in accordance with ICAO standards
- Presentation by IFAIMA (Illiana Sánchez)
- Presentation by EVERIS (AMDB)

5.2 The Secretariat noted that implementation was significantly behind schedule in the SAM Region. In this regard, it was noted that follow-up to implementation conducted in 2019 had not shown significant progress.

5.3 **Brazil** presented a WP and made a presentation on the progress made in its e-TOD programme, the availability of e-TOD data on a GIS website, and the use of such data for procedure design and UAS.

5.4 **Venezuela** reported that it currently has an automated, interoperable system with an obstacle and terrain database capable of being exported in AIXM, HTML or Shape File format if required by the user. The information is detailed in IP/02 presented by the State to report on the implementation of e-TOD.

5.5 Likewise, **Chile**, reported the current collection of obstacle data at 5, airports and one is in process, but due to the situation of the pandemic, the latter would be postponed. In addition, they are working to make the data available through a portal that they are preparing with ESRI, but this does not yet have an application date.

5.6 **Ecuador** reported working on the collection of obstacle data through the use of drones and with the advice of IFAIMA experts.

5.7 **Peru** reported that, regarding the Cusco e-TOD project, it could not be specified due to the supplier's failure. A DGAC - CORPAC work team is being formed to carry out, in this first phase, the analysis and evaluation of the new implementation date, which will take until October. As a second phase, the aerodrome operators will be convened to prepare the plan. It is planned to have the plan for the month of November and make it known to ICAO.

5.8 **Colombia** noted that this area was under the responsibility of the procedure design group. However, it was noted that software was being purchased in order to work with dynamic data, and, if everything went well, data would be ready by December 2021.

5.9 **Panama**, in turn, reported that Tocumen S.A. has carried out the removal of obstacles at the Tocumen and Panama Pacific airports. These data have been forwarded to the Civil Aviation Authority of Panama. In relation to the other international airports, there have been no progress.

5.10 **Uruguay** reported that meetings were being held with raw e-TOD data providers. Working

gorups had been established with obstacle surveying companies and were in the process of organising a bidding process to purchase a system for processing these data.

5.11 **Guyana**, with regards to e-TOD implementation, is at the initial stage. The process began when one of our officers attended the ICAO CAR/SAM seminar on e-TOD in Mexico City in 2015. Last year (2019) several officers were given theoretical training in PANS OPS and RNAV/RNP design procedures by COCESNA. Currently the process of *On the Job training* is being discussed with the company.

5.12 **Bolivia** and **Paraguay** did not report any progress.

5.13 The presentation by IFAIMA provided an overview of terrain and obstacle data acquisition processes, the appropriate equipment to be used in each case, and digital terrain and obstacle data display. Detailed information was also provided on ICAO terrain and obstacle data requirements for each area.

5.14 The industry representatives made a presentation on the *Aerodrome Mapping database*, which covered data acquisition, processing, and display in 3D format.

Agenda Item 6: NOTAM contingency plans, AIM deficiencies, and ICARD system

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

WP/09 – NOTAM contingency plans, AIM deficiencies and ICARD system *(presented by the Secretariat).*
IP/06 – Action taken by Venezuela to resolve duplicated points in ICARD 5LNC.

6.2 The Meeting reviewed the status of NOTAM contingency plans and the resolution of ICARD problems in the SAM Region.

6.3 Regarding NOTAM contingency plans, the Secretariat recalled that Venezuela still had opportunities for improvement, with the support of Peru. In this sense, Venezuela noted that the proposed Cooperation Agreement between Venezuela and Peru had been approved by the air navigation section of INAC. However, the legal section of INAC had claimed that all requirements set forth in Clause 8.1 (internet, telephone with international access, *inter alia*) should be implemented first, before signing the agreement.

6.4 In view of the difficulty to implement all the requirements, the signing of the agreement had been deferred. Work was currently underway to comply with these requirements before delivering the agreement to the legal section of INAC.

6.5 Regarding the NOTAM contingency plan, the Peruvian State has a NOF contingency plan with the States of PANAMA and BOLIVIA. The contingency plan has been activated with Panama, which was successfully developed. Currently, the contingency plan update is being prepared, including testing protocols every six months, which is scheduled for the first tests with Panama on November 15 and with Bolivia on November 20. As part of the implementation and continuous improvement, arrangements are being made with the State of Venezuela in order to sign a letter of agreement with the NOTAM contingency plan.

6.6 Additionally, Peru reported changes in the telephone and e-mail numbers of the Lima NOF Office. The changes are reflected in the Catalog of NOTAM Contingency Plans of the SAM Region, which is presented as Appendix to this part of the report.

6.7 Regarding ICARD, the Secretariat recalled the plan developed at the SAM/AIM/12 meeting, the purpose of which was to achieve 80% resolution of ICARD issues in the SAM Region by 2022.

6.8 The Secretariat acknowledged all the States for their efforts to resolve problems related to duplicated codes, triplicate codes, difference in codes contained in the AIP and those contained in ICARD, as well as waypoint coordinates on FIR boundaries that sometimes differed from one AIP to another.

6.9 The Secretariat recognized the significant work being carried out by the States to remedy the drawbacks and congratulated them on the results obtained. The Secretariat understands that the volume of amendments must be made in a planned manner so as not to affect the level of safety in a negative way.

6.10 The Secretariat urged States to verify the phonetic similarity of the codes they request within a radius of 500 NM. States were also requested not to publish procedures and other information involving new codes, before the Secretariat validates them in the ICARD database.

6.11 El The State of Brazil has been making a large number of amendments in order to reduce the inconveniences that arise in relation to duplicate, triplicate codes and those that do not appear in ICARD but that are currently in use in this State.

6.12 Venezuela submitted IP/06 describing the action taken by the State regarding the ICARD system.

6.13 The Peruvian State has identified 16 duplicate ICARD points in the ATS Routes, of which 5 points correspond to the Iquitos TMA that are being updated and will be published in AIRAC supplement in November 2020.

6.14 Finally, other States have requested the attention of some specific cases. The Secretariat requested the cases to be sent via e-mail, to seek the respective solutions.

Agenda Item 7: Other business

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

- WP/10 – Harmonisation of documents used in aeronautical information services *(presented by Argentina*).
- IP/07 – Measures taken to address COVID-19 – Contingency plan in Venezuela.
- IP/08 – Special provisions taken by Chile to address the COVID-19 emergency.
- IP/09 – Action taken in the airspace of Argentina within the context of the COVID-19 pandemic.
- IP/10 – Contingency plan of the Peruvian State on the action of the AIM against the COVID-19 pandemic
- IP/11 – General information on the air navigation contingency plan of Ecuador
- Presentation on drones: AIM and Services (EVERIS)
- Presentation on AIM training (GroupEAD)

7.2 The Meeting reviewed the action taken by States in the AIM area in face of the COVID-19 pandemic. Seven States submitted information papers on action taken.

7.3 State delegates agreed that lessons learned from this situation should be built upon. Peru proposed that a pandemic or epidemic contingency plan be developed for AIM in case the situation were to repeat itself in the next few years.

7.4 The States supported this proposal and decided to create a working group to draft the contingency plan. The working group was made up by:

a) Argentina: Verónica Villarrouel, Silvia García and Joaquin Fagone
b) Bolivia: Michelle Mora
c) Brazil- Claudius Sany Soares Cardoso
d) Chile: Pablo Perez y Nelsón Aravena
e) Colombia: Pedro Alvarez
f) Paraguay: Antonio Insfrán and Lidia Cáceres
g) Panamá: Dalys Rodriguez
h) Peru: Sara Siles and Walter Peceros
i) Uruguay: Graciela Monzillo
j) IFAIMA: Iliana Sánchez and Luis Fernando Cruz

7.5 Everis presented all AIS applications and services for drones.

7.6 In the presentation on AIM training, the representative of GroupEAD made a broad description of training challenges for AIM implementation. Emphasis was placed on teaching methodologies and training requirements when acquiring new aeronautical information management technologies.

7.7 The Meeting urged States, regarding local training, to offer refresher courses every two years (one applied to static data and the other to dynamic data). This suggestion is based on the need to consolidate the AIS/AIM concepts in colleagues and also to be able to generate a specific ability and capacity in the search for AIS data within online operating systems that for all generations is fundamental, in the search of SWIM, the goal to achieve.