



Agenda Item 5: Operational implementation of new ATM automated systems and integration of the existing systems

INTEROPERABILITY TASK GROUP – INTEROP TG

(Presented by the Secretariat)

SUMMARY	
This working paper presents information about the creation of the Interoperability Task Group for the SAM Implementation Group and a proposal of Terms of Reference to be approved by the SAM/IG/23 Meeting.	
References:	
- Report of the Twenty-second workshop/meeting of the SAM implementation group (SAM/IG/22) (Lima, Peru, 19-23 November 2018).	
ICAO strategic objectives:	A – <i>Safety</i> C – <i>Air navigation capacity and efficiency</i>

1. Background

1.1 Although many providers of systems used in the aeronautical context claim compatibility with current open standards, in practical terms, full interconnection between systems of different makes is rarely achieved easily.

1.2 Experience obtained in the region with the implementation of the Aeronautical Message Handling System (AMHS) and ATS Interfacility Data Communication (AIDC) shows that the interconnection of systems from different manufacturers is not immediate, nor simple. Even products of the same provider sometimes have interoperability problems due to different versions, functionalities not acquired, and the configuration chosen.

1.3 Taking into account the number of new systems required for the automation of aeronautical information management (AIM) services and the SWIM concept (system-wide information management), air traffic management (ATM), air traffic flow management (ATFM), communication, navigation and surveillance (CNS) and meteorology (MET), It was considered necessary to create a task group, within the structure of the SAM Implementation Group (SAM/IG), with a view to ensuring the interoperability of the implemented systems.

1.4 During the SAM/IG/22 Meeting (Lima-Peru, from November 19 to 23, 2018), Conclusion SAM/IG/22-3 was approved for the creation of the Interoperability Task Group (Interop TG), with the main objective of guaranteeing interoperability between the automated systems used in the AIM, MET, ATM, ATFM and CNS areas, within the framework of the implementation of the elements designated in the SAM-PBIP.

1.5 Figure 1 presents the SAM/IG/22-03 Conclusion.

CONCLUSION	
SAM/IG/22-03 Interoperability Task Group (GT Interop)	
That: The Interoperability Task Group (GT Interop) be established, with the aim of in order to deal with the subject in the SAM Region, providing the States with guidance on the interconnection processes of aeronautical systems implemented or to be acquired.	Expected impact: <input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Technical / Operational
Why: In order to guarantee the interoperability among the automated systems used by the AIM, MET, ATM, ATFM and CNS areas.	
When: No beyond SAM/IG/23	Status: Adopted by SAM/IG/22
Who: <input checked="" type="checkbox"/> Coordinators <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO Secretariat <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Others: Users/Industry	

Figure 1 – SAM/IG/22-03 Conclusion (Interop TG)

2. Discussion

2.1 Through letter SA453, of December 13, 2018, States were requested to indicate participants for the Interoperability Task Group, with profile of planners and implementers of the systems that support air navigation services. At the moment, only 5 States have indicated participants for the Interop TG. **Appendix A** to this working paper presents the States that have informed and their respective representatives.

2.2 To be approved by the SAM/IG/23 Meeting, a Terms of Reference was prepared and it is presented in the **Appendix B** of this working paper.

2.3 In this proposal, the Interop TG will have a Coordination Nucleus (NC) formed by a representative (leader) of each State that will distribute the other representatives of its State in the active Subgroups. During the SAM/IG/23 Meeting, a representative of the participating States shall be designated rapporteur of the Coordination Nucleus and another representative shall be the substitute.

2.4 The Subgroups will be made up of a multidisciplinary group of professionals involved with the subject. Organizations such as IATA, EASA and others can participate, as well as the industry that develops systems for Air Navigation Service Providers (ANSP). Each Subgroup will have a rapporteur and a substitute appointed by NC of the Interop TG.

2.5 Figure 2 depicts the conformation of the Interop TG with some Subgroups indicated.

2.6 Initially, it is proposed the activation of 3 Subgroups with 4 interoperability subjects:

- a) CNS Subgroup
 - AMHS; and
 - AIDC
- b) ATM Subgroup
 - AIDC
- c) MET Subgroup
 - IWXXM

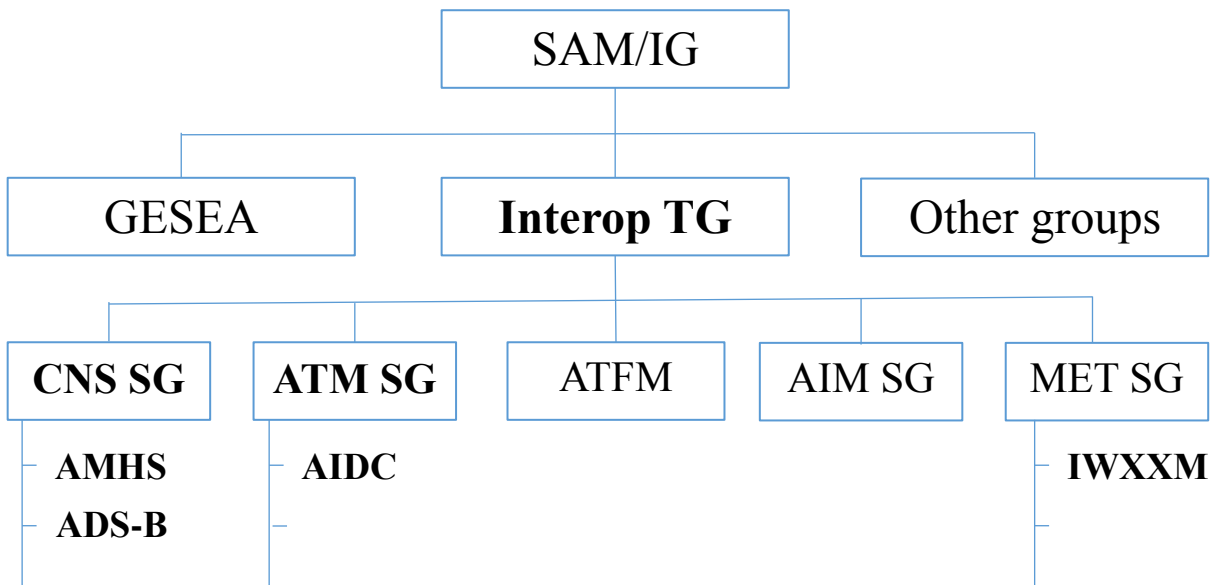


Figure 2 – Interoperability Task Group conformation

2.7 The CNS Subgroup would address the work to complement the AMHS COM Centers interconnection (P1) and the interchange of surveillance information (ADS-B), including the issues related the usage of Space-based ADS-B information, in a regional implementation, employing the REDDIG to distribute the surveillance information.

2.8 The ATM Subgroup would address the work to implement AIDC communication between adjacent control centers.

2.9 The MET Subgroup would address the work to exchange operational meteorological messages (OPMET) in the new format IWXXM.

2.10 When necessary, the Sam Implementation Group (SAM/IG) will activate other Subgroups and assign new subjects to the Interop TG.

3 Suggested action

3.1 The Meeting is invited to:

- a) take note of the information contained in this working paper;
- b) analyse and approve the Interop TG's Terms of Reference, and also, the proposal of Subgroups activation; and
- c) discuss any other matter it may deem appropriate.

APÉNDICE A / APPENDIX A

**PUNTOS FOCALES GT INTEROP / FOCAL POINTS GT INTEROP
(23/03/2019)**

Argentina:

Bolivia:

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Guiana Francesa / French Guiana:

Guyana:

Panamá/Panama:

Paraguay:

Perú/Peru:

Surinam/Suriname:

Uruguay:

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- Guillermo Facello (ATFM), guillermo.facello@dinacia.gub.uy;
- Gabriel Fernandez (ATFM), gabriel.fernandez@dinacia.gub.uy;
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- INUMET (MET)
- Mario Dávila (AIS), mdavila@dinacia.gub.uy;
- Graciela Monzillo (AIS), gmonzillo@dinacia.gub.uy.

Venezuela:

APPENDIX B

TERMS OF REFERENCE	
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SAM REGION INTEROPERABILITY TASK GROUP

TG Interop

Terms of Reference (ToR)

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REGISTRATION OF AMENDMENTS

N.° of Amendment	Date	Description	Approval
DRAFT	20 MAR 2019	Not applicable	SAM/IG/23

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1. HISTORICAL

The Interoperability Task Force of the SAM Region (TG Interop) was created at the SAM/IG/22 Meeting (Lima-Peru, from November 19 to 23, 2019) to support the modernization initiatives of air navigation services and ensure interoperability between the automated systems used by AIM, ATM, ATFM, CNS and MET users, with the purpose to:

- a) facilitate the exchange of information between the systems implemented by the States;
- b) reduce the times and interconnection problems of the systems;
- c) provide a harmonious transition towards the new services and elements indicated in the GANP; y
- d) stimulate the multidisciplinary participation of air navigation service professionals in support of the SAM Region Implementation Group (SAM/IG) for the planning and execution of interconnection work on the systems implemented in the South American Region.

2. OBJECTIVE (S)

- a) Support the initiatives of the Implementation Group of the SAM Region (SAM/IG);
- b) Orient States on interoperability issues, carrying out the necessary studies and sharing the experiences and solutions developed; and
- c) Systematize the process of interconnection of the automated systems used in air navigation services.

3. PROFILE OF THE PARTICIPANTS

The Interop TG should be composed of a multidisciplinary group of professionals from various areas that support air navigation services, working with specialists in Information Technology and Communications (ICT), which together with industry and other organizations will carry out studies to solve of the interoperability problems that arise, during the interconnection processes of the systems implemented by the States of the Region.

4. OPERATION AND RESPONSIBILITY

The TG Interop is subordinated and will report directly to the SAM Implementation Group (SAM/IG).

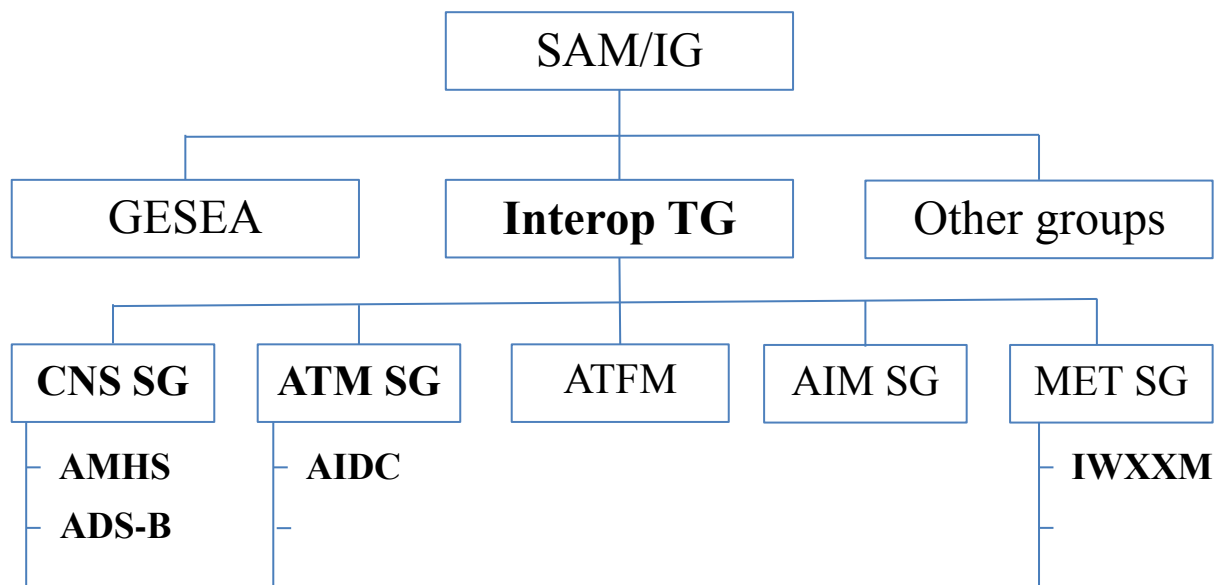
The GT Interop will have a Nucleus of Coordination (NC) made up of a representative (leader) of each State that will distribute the other representatives of its State in the active Subgroups. A representative of the participating States shall be designated rapporteur of the Coordination Nucleus and another representative the substitute.

The Subgroups will be activated by the SAM Implementation Group and each Subgroup must choose a rapporteur and his substitute. The Subgroup will report directly to the Coordination Nucleus (NC) of the GT Interop.

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Representatives of the Industry and other Organizations should participate in the Subgroups by suggestion of the components of the Coordination Nucleus and approval of the SAM Implementation Group.

The members of each activated Subgroup will be assigned tasks by the coordinator of the Subgroup that must be carried out with programmed deadlines.



5. WORK PROGRAMME

According to Appendix C (to be defined).

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APPENDIX A

RESPONSIBILITIES, OPERATION, AGENDA AND REPORTS

1. RESPONSIBILITIES

a) MEMBERS OF TG Interop (Coordination Nucleus)

- i. Choose and assign the Rapporteur of the Coordination Nucleus (NC) of the Interop GT;
- ii. Advise the Implementation Group (SAM/IG) in the creation of the Subgroups;
- iii. Designate advisors who can effectively contribute to the work of the Interop TG, avoiding unnecessary replacements that could result in losses in the efficiency of the work in progress.
- iv. Guarantee the periodic updating of the work program, based on the proposals of the participating States and Organizations, as well as on the proposals of the Subgroups;
- v. Define the work packages and deadlines for delivery of the products foreseen in the work program, based on the proposals of the Subgroups;
- vi. Supervise the execution of the work program; and
- vii. Approve the deliverables by the Subgroups.

b) MEMBERS OF SUBGROUPS

- i. Choose and assign the Rapporteurs of the Subgroups;
- ii. Designate advisors who can effectively contribute to the work of the Subgroup, avoiding unnecessary replacements that may result in losses in the efficiency of the work in execution;
- iii. Designate the Rapporteurs of the Subgroups, considering the professional experience and profile to coordinate their activities;
- iv. Keep the members of the Interop TG informed on the progress of the Subgroup's work;
- v. Request the approval of the Interop TG for the proposals to update the Work Program of the Subgroup; and
- vi. Present to the Interop TG, for approval, the work done in the Subgroups.

2. FUNCTIONING OF THE INTEROP GROUP AND SUBGROUPS

- a) The meetings of the Interop WG and its Subgroups will be held during the SAM/IG meetings and by teleconferences.
- b) In the SAM / IG Meeting held in the first semester, the Subgroups of the Interop GT will be activated, with their tasks and schedule.
- c) In the SAM/IG Meeting held in the second semester, representatives of the Coordination Center of the Interop GT will present the Reports and deliverables assigned by the Implementation Group.

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- d) Prior to the completion of the SAM/IG for the second semester, the Coordination Center may hold a face-to-face meeting, with a view to preparing the study/information notes, reports and other deliverables that will be presented to the Implementation Group;
- e) Face-to-face meetings or videoconferences will be named as follows:
 - i. TG Interop Meetings: **TG Interop / [sequential number]**;
 - ii. NC meetings of the Interop TG: **TG Interop/NC / [sequential number]**; and
 - iii. The Subgroups: **TG Interop/SG and System / [sequential number]**.
- f) All the documentation produced in the TGs and Subgroups will be available on the specific WEB page of the SAM Regional Office.

3. **AGENDA**

- a) The agenda of the meetings of the Interop TG and Subgroups should be sent by the designated rapporteurs or their substitutes; and
- b) The tentative agenda should be sent to participants at least 30 days in advance for face-to-face meetings and 10 days for teleconferences.

4. **REPORT**

The rapporteur of the Interop TG and the rapporteurs of the Subgroups should prepare the report of the face-to-face meetings or via teleconference, covering at least: agenda, list of participants, minutes with a summary of the discussions and conclusions formulated for each agenda item.

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LIST OF PARTICIPANTS (TO BE DEFINED)

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APPENDIX C

WORK PROGRAMME (TO BE DEFINED)