



Agenda Item 4: SAM/IG Conclusions and next actions - Plenary

- a) Summary of sessions
- b) Review and approval of conclusions
- c) Approval of the 2021 work plan

**ANALYSIS AND SUMMARY OF THE GESEA GROUP AND FORMULATION OF
CONCLUSIONS FOR CONSIDERATION BY THE PLENARY OF SAMIG/25**

(Presented by the Secretariat)

SUMMARY	
<p>This working paper presents a summary of the discussions held by GESEA on the first and second day of sessions, and an extract from the report on the work of the technical subgroups as described in the working papers presented at the Meeting. In this regard, conclusions are formulated for consideration by the plenary of SAM/IG/25.</p>	
References:	
<ul style="list-style-type: none">- SAM/IG/22 final report (Lima, Peru, 19-23 November 2018);- SAM/IG/23 final report (Lima, Peru, 20-24 May 2019); and- SAM/IG/24 final report (Lima, Peru, 4-8 November 2019).	
ICAO strategic objectives:	<i>A – Safety</i> <i>B – Air navigation capacity and efficiency</i>

1. Introduction

1.1 As agreed at the SAM/IG/24 meeting (November 2019) GESEA tentatively approved the following 2020 annual work plan:

ACTIVITY	GROUP	Status
ToR GESEA	GESEA	Finalised
CIRCULAR 353	SG2	Finalised
SAM AIRSPACE CONCEPT	SG1	In progress
AIRSPACE PLANNING STANDARDS	SG1	
TRAINING - AIRSPACE PLANNER	SG1	
CONT PLAN	SG1	Finalised
VISUAL RNAV	SG2	Finalised
ORGANISATION OF SAM IFPDS	SG2	

ACTIVITY	GROUP	Status
POST-IMPLEM	SG1	
DCT - FRA	SG1	Finalised
RNP AR SID	SG2	
MOC enhanced mountainous terrain	SG2	
VPA vs temperature	SG2	
OMNI SID	SG2	
FAVA	SG1	

1.2 Due to the pandemic, the face-to-face meetings of GESEA's SG1 - Airspace Planning and SG2 - PANS OPS, which were to be held in Bogota, Colombia, were rescheduled, giving rise to virtual meetings in May and July 2020 respectively.

1.3 In these virtual meetings, studies were scheduled, prioritising elements that might provide rapid benefits to air navigation efficiency, promoting early recovery of civil aviation, environmental protection and without significant costs. GESEA and the Subgroups shall review the priority assigned to pending tasks and formulate new tasks for the AWP.

1.4 All the records of GESEA and task forces meetings are available in the GESEA cloud;

<https://onedrive.live.com/?authkey=%21AvxOvPHYpEPdtzU&id=4B2F65A2BBF9F10F%21114693&cid=4B2F65A2BBF9F10F>

1.5 At this SAM/IG/25 Meeting, GESEA and Subgroup SG1 - Airspace planning, and Subgroup SG2 -PANS OPS presented the progress made, as reflected in the working papers and information paper listed in the following table:

Item 2. Report on activities of GESEA and Subgroups a) Review of air navigation priorities in the ATM field b) Deliverables and progress made by SG1/SG2 working groups c) Formulation of conclusions d) Analysis of the 2021 work plan	WP 2.1	Harmonised implementation of strategic direct routing (EDE)
	WP 2.2	ATS contingency framework plan for the SAM Region (MCATS/SAM)
	WP 2.3	Regional guide on the implementation of PBN visual runway procedures
	IP 2.1	SAM airspace efficiency and capacity concept of operations (CONOPS)

1.6 The SAM States presented information papers on the progress made in the area of ATM and PBN implementation, which are available on the SAMIG/25 meeting website at:

https://www.icao.int/SAM/Pages/ES/MeetingsDocumentation_ES.aspx?m=2020-RLA06901-SAMIG25

2. Discussion

Harmonised implementation of strategic direct routing (EDE)

2.1 The GESEA SG1 reported on the progress made in the implementation of strategic direct routing (EDE). It was noted that the studies conducted by the task force had been circulated among the States in both languages. No comments were received on the deliverable. It was noted that the GESEA SG1 had recommended implementation starting on 5 November 2020, if feasible for the administrations.

2.2 The Meeting noted that Chile and Colombia had recently issued their AICs on EDE implementation in their airspace, and other States, such as Guyana and Venezuela, had already issued their aeronautical publications and/or were applying EDE early on. Uruguay also informed about its participation in the activities of the task force, but acknowledged that EDE was not providing any advantages at the FIR Montevideo due to the characteristics of that airspace.

2.3 Peru and LATAM informed the Meeting about tests carried out in October with a real flight operating between Lima and Miami, which showed the feasibility of processing flight plans in CORPAC's INDRA system, without affecting ATS prediction and automation tools. LATAM was still processing fuel savings results, and would share them in due course.

2.4 IATA acknowledged the support of SAM States and ANSPs and mentioned that these initiatives were also being implemented in the neighbouring CAR Region. It was noted that a comprehensive regional and inter-regional implementation was required for the flight plan to operate *seamlessly* and without modifications, as shown for the airport of departure. The aim was to move towards early implementation of the FRTO element of GANP/6.

2.5 Accordingly, the following draft conclusion is formulated:

CONCLUSION SAM/IG/25-xx Implementation of strategic direct routing (EDE)	
<p>That:</p> <p>SAM States analyze the guidance material prepared by the GESEA SG1 on the strategic direct routing (EDE) concept, which was made available to the administrations, and coordinate with IATA and international airlines, as well as with adjacent States, for its implementation as soon as possible.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input checked="" type="checkbox"/> Inter-regional</p> <p><input checked="" type="checkbox"/> Economic</p> <p><input checked="" type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Technical/Operational</p>
<p>Why: To achieve harmonised and comprehensive implementation of EDE in the SAM Region in order to enhance the benefits of this initiative, which supports the early recovery of aircraft flows in the Region and reduces CO2 emissions into the atmosphere.</p>	

When: No later than SAMIG/26	Status: Adopted by SAM/IG/25
Who: <input type="checkbox"/> Coordinators <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO Secretariat <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Users/Industry	

SAM ATS Contingency framework plan (MCATS /SAM)

2.6 The "SAM ATS contingency framework plan", available in WP/2.2, was presented. This study had already been circulated among States/territories in both languages. No objections to the framework plan were raised.

2.7 In this regard, it was recognised that the Plan met the main objectives set out by the GESEA SG1 and that activities were required in each State for its alignment with the national ATS contingency plans as soon as possible, in order to:

- a) provide a contingency response framework based on which SAM States may ensure the controlled continuation of aircraft operations in the UIRs/FIRs affected by contingencies, including the flow between FIRs not involved therein;
- b) ensure timely, harmonised, and appropriate response to all events which could result in the disruption of ATS, or in which the ATS is involved, thus disrupting the normal movement of aircraft;
- c) provide a higher level of certainty to airspace users and aerodromes during contingency operations; and
- d) facilitate the harmonisation of plans between States/territories/organisations located in the common boundary between the CAR/SAM Regions.

2.8 During its work, the Task Force on Contingency Plans noted that, in order to strengthen regional resilience, it was advisable for each State to have ATM/CNS contingency plans, integrating the response plans of all services, including ATFM, thus including MET, AIM, etc.

2.9 It was noted that two face-to-face meetings on ATS contingency plans (scheduled for 2020 but postponed due to the pandemic) were still pending. GESEA tentatively proposed May and June 2021 for holding the SAM SOUTH and SAM NORTH meetings, which required that all fourteen States/territories develop and agree on the documentation by electronic means and teleconferences.

2.10 In view of the foregoing, two draft conclusions are formulated, as follows:

CONCLUSION SAM/IG/25-xx		Adoption of the guidelines of the SAM ATS contingency framework plan (MCATS /SAM) and alignment of national plans	
That:		Expected impact:	
States adopt the guidelines of the SAM ATS Contingency Framework Plan developed by GESEA and start harmonising their national ATS contingency plans, so that the documentation required for the regional activities on		<input type="checkbox"/> Political / Global	
		<input checked="" type="checkbox"/> Inter-regional	
		<input checked="" type="checkbox"/> Economic	

contingencies plans and letters of ATS agreement, tentatively scheduled for 2021, may be available on a timely manner.	<input checked="" type="checkbox"/> Environmental <input checked="" type="checkbox"/> Technical/Operational
Why: To achieve harmonised implementation of national ATS contingency plans, duly agreed with neighbouring States, including CAR States where appropriate, thus increasing the resilience of ATS and SAM airspace.	
When: No later than 15 April 2021	Status: Adopted by SAM/IG/25
Who: <input type="checkbox"/> Coordinators <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO Secretariat <input checked="" type="checkbox"/> ATFM focal points <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Users/Industry	

CONCLUSION SAM/IG/25-xx Activities for the development of the SAM ATM/CNS contingency framework plan	
That: States support GESEA activities towards a second stage of the MCATS, with a view to developing guidance material for a “SAM ATM/CNS Contingency Framework Plan”	Expected impact: <input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input checked="" type="checkbox"/> Environmental <input checked="" type="checkbox"/> Technical/Operational
Why: To achieve harmonised implementation of national ATM/CNS contingency plans, with interfaces to AIM, MET services, airports, etc., and duly agreed with neighbouring States, including CAR States, where appropriate, thus increasing the resilience of ATM/CNS services and SAM airspace.	
When: No later than October 2023	Status: Adopted by SAM/IG/25
Who: <input type="checkbox"/> Coordinators <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO Secretariat <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Users/Industry	

Regional guide on the implementation of PBN visual runway procedures

2.11 The GESEA SG2 noted that the use of PBN in the design of instrument approach procedures (IAPs) provided greater flexibility to airspace planners/designers for an efficient use of airspace and facilitated airport access through the improvement of operational minima, which impacted on air connectivity that, in turn, favoured socio-economic development.

2.12 PBN procedures support stabilised approaches and prescribe initial-intermediate-final-missed approach segments duly protected from obstacles, and contribute to safety as they reduce controlled flight into terrain/loss of control in-flight (CFIT/ LOC-I) events.

2.13 Working paper 2.3 contains the deliverable "Regional Guide on the Implementation of PBN visual runway procedures", which gives ample details for PANS OPS designers and authorities concerned.

2.14 The Meeting welcomed the implementation of PBN visual runway procedures, and agreed that the guide was most appropriate for a first stage involving only PBN approaches with minima of not less than 500 ft / 3000 metres.

2.15 In this regard, it was recommended that SAM States adopt the aforementioned guide (with adjustments as necessary), so as to generate national regulations on the implementation of PBN visual runway procedures.

2.16 The second stage proposed by GESEA is the study of the RVFP (RNAV visual flight procedures) concept.

2.17 In view of the above, two draft conclusions are formulated as follows:

CONCLUSION SAM/IG/25-xx Adoption of the Regional guide on the implementation of PBN visual runway procedures	
<p>That:</p> <p>SAM States adopt the Regional Guide on the implementation of PBN visual runway procedures developed by GESEA and, on this basis, approve national regulations on the implementation of these procedures.</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 checked="" type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Technical/Operational</p>
<p>Why: To implement IAPs and ensure safety during visual runway approaches, based on the provision of PBN and on-board navigation capabilities.</p>	
<p>When: Immediately</p>	<p>Status: Adopted by SAM/IG/25</p>
<p>Who: <input type="checkbox"/> Coordinators <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO Secretariat <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Users/Industry</p>	

CONCLUSION SAM/IG/25-xx Studies on RNAV visual flight procedures (RVFP)	
<p>That:</p> <p>The GESEA SG2 conduct studies on the implementation of of RNAV visual flight procedures (RVFP), in order to have available a harmonised regional guide aligned with ICAO provisions.</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 checked="" type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Technical/Operational</p>
<p>Why: To standardise RVFP procedure design criteria in the SAM Region, in line with ICAO developments on this matter.</p>	
<p>When: Starting in 2021. Study results no later than October 2022.</p>	<p>Status: Adopted by SAM/IG/25</p>
<p>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</p>	

SAM airspace efficiency and capacity concept of operations (CONOPS)

2.18 The Meeting was informed that as part of the GESEA SG1 2020 work plan, the SAM airspace concept of operations document (now PBN CONOPS) was updated. A new CONOPS approach was proposed that improves the previous document, which is based on implementation of PBN and navigation specifications.

2.19 The CONOPS TF held five virtual meetings; however, it encountered difficulties in carrying out its work, since it was noted that several members were simultaneously registered in the task forces of the two subgroups and the meeting dates crossed.

2.20 Another noteworthy aspect is that between August and September 2020, four workshops were held on ANP Vol III and GANP/6 (see WP/1.2). Some GESEA delegates were designated to participate on behalf of their States and were able to obtain better knowledge of the planning tools.

2.21 The draft SAM CONOPS is still in its initial phase and it is advisable to pause the work of the TF until after the workshop on the AN-SPA tool has been held, which is tentatively planned for the end of November 2020.

2.22 A very important aspect is that, in 2021, a training course for airspace planners and on airspace regulation will be carried out in parallel with the work of CONOPS, under programmes being prepared by Brazil and in coordination with GESEA.

3. Suggested action

3.1 The Meeting is invited to:

- a) Take note of the deliverables provided by the GESEA Subgroups;

- b) take note of the progress made by the CONOPS TF and the importance of moving forward with this deliverable; and
- c) discuss and, if appropriate, adopt the conclusions set forth in this paper.

- END -