

International Civil Aviation Organization



**THE FIRST MEETING OF AERONAUTICAL
COMMUNICATION SERVICE (ACS)
IMPLEMENTATION CO-ORDINATION GROUP
OF APANPIRG (ACSICG/1)**



Seoul, Republic of Korea, 13 - 16 May 2014

**Agenda Item 2: Review outcome of APANPIRG/24 on Implementation of Aeronautical
Communication Facilities and Services**

FOLLOW-UP WORK ON RECOMMENDATIONS OF AN-CONF/12

(Presented by the Secretariat)

SUMMARY

This paper suggests response and follow-up actions regarding the AN-Conf/12 recommendations related to the work of ACSICG. The meeting is invited to review and endorse the response and the follow-up actions to be taken by the ACSICG.

1. Introduction

1.1 During the APANPIRG/24 held in June 2013, the following Conclusion and Decision were endorsed requesting States, International Organizations and Sub-groups of APANPIRG to study the recommendations arising from AN-Conf/12, and initiate appropriate follow-up actions:

**Conclusion 24/4 - Follow-up to AN-Conf/12 Recommendations by States
and International Organizations**

That, the States and International Organizations, on the basis of analysis contained in the Appendix A to Report on Agenda Item 2, takes follow-up action as appropriate on the applicable recommendations of the AN-Conf/12.

Decision 24/5 - Follow-up to AN-Conf/12 Recommendations by APANPIRG

That the subgroups of APANPIRG study the recommendations of the AN-Conf/12, initiate appropriate follow-up actions and submit a report on the outcomes of these actions to APANPIRG/25.

1.2 To facilitate the CNS Sub-group to submit a report to APANPIRG/25 as per Decision 24/5, this working paper was prepared with a view to consolidating views of members on response and follow-up actions by the ACSICG in relation to relevant AN-Conf/12 recommendations. It is recommended that the ACSICG to endorse the proposed response and follow-up actions.

2. Discussion

2.1 Having conducted a review on the 56 nos. of AN-Conf/12 recommendations, it is proposed that ACSICG provides responses to and take actions on the following 5 numbers of AN-Conf/12 recommendations:

Recommendations 1/6, 3/2, 3/3, 3/4, and 3/5.

2.2 The meeting may also consider the recommendations 3/9 and 6/13 as they are indirectly linked to ACSICG activity.

2.3 The detailed response and actions are given in the Attachment to this paper Actions required from ACSICG are included in the right column of the Attached table for consideration.

3. Action by the Meeting

3.1 The meeting is invited to:

- a) review and endorse the proposed response and actions by the ACSICG in relation to AN-Conf/12 recommendations; and
- b) formulate a Draft Conclusion on the proposed response and actions for consideration by the CNS Sub-group, which is tasked to submit a report on this matter to APANPIRG/25 as per Decision 24/5.

<p align="center">Recommendations Adopted by AN-CONF/12</p>	<p align="center">Proposed Response/Actions by ACSICG/1</p>
<p>Recommendation 1/6 – Data communications issues</p> <p>That ICAO:</p> <p>a) organize a multidisciplinary review of air traffic control communication requirements and issues; and</p> <p>b) review the operation, management and modernization of a regional digital network technical cooperation project and other similar regional experiences with the aim that this efficient practice can be adapted for use in other ICAO regions;</p> <p>That States:</p> <p>c) explore multi-modal solutions when appropriate to overcome transition issues; and</p> <p>d) anticipate and accelerate the migration of air traffic management communication systems towards more efficient technologies to timely service the aviation system block upgrade modules.</p>	<p>APANPIRG is being studying the opportunity and feasibility to deploy a Common Regional network through the CRV Task Force established in June 2013. Benchmarking was done regarding other regional initiatives such as PENS, MEVA and REDDIG.</p> <p>It is anticipated in APAC Region that to support B0-FICE, enable B1-SWIM and the sharing of surveillance and support the transition to VoIP communications, a modern and cost effective network needs to be implemented. The Cost Benefit Analysis developed Q1 2014 by the CRV Task Force shows solutions like IP MPLS-based networks would prove to be an efficient technology. Its feasibility in APAC will be confirmed through a Request For Information towards Industry.</p> <p>In 2016 APANPIRG plans to establish a regional group called OOG (CRV Operations Oversight Group) to coordinate and monitor the transition from legacy communication networks to the CRV network. The safety issues that may be linked to the transition will be studied in the preliminary safety case of CRV project.</p> <p>If confirmed by APANPIRG the CRV network operations should start late 2016/early 2017.</p> <p>No supplementary action needed.</p>
<p>Recommendation 3/2 – Development of a global system-wide information management concept</p> <p>That ICAO:</p> <p>a) undertake further work to develop a global system-wide information management concept for air traffic management operations and related ICAO provisions that may be necessary;</p> <p>b) at the appropriate time coordinate information management principles and performance-based information management;</p> <p>c) perform additional work on the global implementation of those principles and framework for all air traffic management information through the development of appropriate information management/system-wide information management concepts to be ready in 2014 for subsequent system</p>	

Recommendations Adopted by AN-CONF/12	Proposed Response/Actions by ACSICG/1
<p>development work in Block 1 and to include in its work programme, specific activities tailored at coordinating system-wide information management deployment at a local, regional and global level;</p> <p>d) update the information management/system-wide information management (IM/SWIM) working arrangements;</p> <p>That States and stakeholders:</p> <p>e) work together to demonstrate how system-wide information management capabilities and functions will meet the needs of the future air traffic management system.</p>	<p>APANPIRG has reviewed the SWIM CONOPS. APANPIRG through ATNICG has studied and A cost-benefit analysis for CRV was developed. A cost-benefit analysis for IMS/SWIM at regional level is planned to be developed. (conclusion C 23/21).</p> <p>Action proposed: expedite the cost-benefit analysis for IMS/SWIM</p> <p>Action proposed: APANPIRG to initiate a Task “Develop SWIM APAC implementation framework”. While this task can initially report to APANPIRG through ACSICG and CNS/SG, the integrated nature of SWIM may need to integrate ATM and MET SGs.</p>
<p>Recommendation 3/3 – Development of ICAO provisions relating to system-wide information management</p> <p>That:</p> <p>a) under the leadership of ICAO, develop detailed technical specifications for system-wide information management in close collaboration with the aviation community;</p> <p>b) detailed technical specifications for system-wide information management should be open and rely on generic international standards to the extent possible; and</p> <p>c) ICAO undertake work to identify the security standards and bandwidth requirements for system-wide information management.</p>	<p>The Task “Generate User Requirements” of CRV project is expected to address security standards and bandwidth requirements for all data conveyed, including SWIM data. Yet this will be early requirements as not all the provisions and guidance about SWIM will be available in 2014-2015.</p> <p>Action proposed: APANPIRG to include identification of security standards and bandwidth requirements for SWIM in the Statement of Work of the Task “Develop SWIM APAC implementation framework”.</p>
<p>Recommendation 3/4 – State and industry and industry support of system-wide information management</p> <p>a) industry support the transition towards system-wide information management by providing appropriate</p>	

<p align="center">Recommendations Adopted by AN-CONF/12</p>	<p align="center">Proposed Response/Actions by ACSICG/1</p>
<p>systems supporting automation and the exchange of all relevant air traffic management data in a globally standardized manner; and</p> <p>b) States and all relevant stakeholders contribute to further development and harmonization of performance-based information management</p>	<p><u>Action proposed: APANPIRG to include performance-based information management for SWIM in the Statement of Work of the Task “Develop SWIM APAC implementation framework”.</u></p>
<p>Recommendation 3/5 – Operational performance through flight and flow – information for a collaborative environment</p> <p>That the Conference:</p> <p>a) endorse the aviation system block upgrade module relating to flight and flow – information for a collaborative environment included in Block 1, and recommend that ICAO use it as the basis of its work programme on the subject;</p> <p>b) agree in principle with the aviation system block upgrade module relating to flight and flow – information for a collaborative environment included in Blocks 2 and 3, as the strategic direction for this subject;</p> <p>That ICAO:</p> <p>c) include, following further development and editorial review, the aviation system block upgrade modules relating to flight and flow – information for a collaborative environment for inclusion in the draft Fourth Edition of the <i>Global Air Navigation Plan</i> (Doc 9750, GANP);</p> <p>d) investigate, as part of the post-implementation review of the FPL2012, proposals for the implementation of all performance-based navigation codes and other capabilities into the flight plan, having regard to an impact assessment including cost benefit analysis and other factors;</p> <p>e) convene a symposium, as soon as possible, where interested partners would develop an end-to-end advanced system demonstrations of new air traffic management concepts to support a common understanding of concepts such as SWIM, FF-ICE trajectory-based operations and collaborative decision-making;</p>	

Recommendations Adopted by AN-CONF/12	Proposed Response/Actions by ACSICG/1
<p>That States:</p> <p>f) and industry work through ICAO to mature the flight and flow – information for a collaborative environment concept;</p> <p>g) support the development of a flight information exchange model;</p> <p>h) according to their operational needs, implement the aviation system block upgrade modules relating to improved operational performance through flight and flow – information for a collaborative environment included in Block 0.</p>	<p><u>Action proposed: APANPIRG to include the refinement of a regional CONOPS for FICE in the Statement of Work of the Task “Develop SWIM APAC implementation framework”</u></p>
<p>Recommendation 3/9 – Review of NOTAM system and development of options for replacement</p> <p>That ICAO initiate a review of the current NOTAM system, building further on the digital NOTAM activities, including the development of options for a replacement system that would enable web-based applications and compliant with the system-wide information management principles that are being developed for the air traffic management system.</p>	<p>This recommendation has an indirect impact.</p> <p>NOTAM may be conveyed upon SWIM in the future.</p> <p><u>NOTAM have to considered by the Task “Develop SWIM APAC implementation framework”.</u></p>
<p>Recommendation 6/13 – Development of Standards and Recommended Practices, procedures and guidance material</p> <p>That ICAO:</p> <p>a) improve its project management and coordination of contributing ICAO panels, study groups and other expert groups, including task forces and other specialized teams tasked with the development of ICAO provisions and related work, through:</p> <ol style="list-style-type: none"> 1) consistent application of the <i>Directives for Panels of the Air Navigation Commission</i> (Doc 7984); 2) receiving regular reports from the expert groups against agreed terms of reference and work programmes; 3) mandating strong coordination between all expert groups developing ICAO provisions to ensure efficient management of issues and avoidance of duplication; 4) application of the principles of accountability, geographical representation, focus, efficiency, consistency, transparency and integrated planning to the operation of all the expert groups; 	

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<p>5) developing documented procedures for other expert groups, including task forces and other specialized teams as well; and</p> <p>6) better use of today’s communication media and internet to facilitate virtual meetings, thereby increasing participation and reducing costs to States and ICAO;</p> <p>b) continue to coordinate with the other recognized standards-making organizations (Assembly Resolution A37-15 refers) in order to make the best use of the capabilities of these other recognized standards-making organizations and to make reference to their material, where appropriate;</p> <p>c) initiate studies to improve the verification and validation process required within ICAO before material developed by recognized standards-making organizations can be referenced in ICAO documentation; and</p> <p>d) consider a methodology by which ICAO can capture the regional implementation and challenges, and to reflect them in a standardized process to effectively support the aviation system block upgrade deployment.</p>	<p>APANPIRG has already structured its CRV project based on tasks and progresses its work mainly through use of portal and webconferences.</p> <p><u>Action proposed: APANPIRG to use virtual meetings as the main vector of progress for its tasks:</u></p> <ul style="list-style-type: none"> • <u>“Develop SWIM APAC implementation framework”</u> • <u>Implement AIDC</u> • <u>Develop an IP address plan</u> <p>APANPIRG has developed an ANRF for B0-FICE in which regional implementation and challenges are captured.</p> <p><u>Action proposed APANPIRG to include the development of B1-SWIM ANRF in the Statement of Work of the Task “Develop SWIM APAC implementation framework”</u></p>
