



International Civil Aviation Organization

**SIXTEENTH MEETING OF THE
COMMUNICATIONS/NAVIGATION/SURVEILLANCE AND
METEOROLOGY SUB-GROUP (CNS/MET SG/16) OF APANPIRG**

Bangkok, Thailand, 23 – 27 July 2012

Agenda Item 4: Aeronautical Mobile Service (AMS)
Agenda Item 6: Surveillance

**REVIEW OF PERFORMANCE-BASED COMMUNICATION AND SURVEILLANCE
COMPLIANCE REQUIREMENTS**

(Presented by New Zealand)

SUMMARY

This paper presents a brief summary of the activities of the Ad-hoc Working Group on Review of Performance-based Communication and Surveillance Compliance Requirements set up under Draft Decision 15/38.

This paper relates to –

Strategic Objectives:

A: Safety - *Enhance global civil aviation safety*

C: Environmental Protection and Sustainable Development of Air Transport - *Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment*

Global Plan Initiatives:

GPI-1 Flexible use of airspace

GPI-5 RNAV and RNP (Performance-based navigation)

GPI-12 Functional integration of ground systems with airborne systems

GPI-17 Data link applications

GPI-22 Communication infrastructure

1. Introduction

1.1 As a result of a Working Paper presented to CNS-MET/15 by New Zealand, the meeting set up an Ad-Hoc Working Group, comprising Australia, New Zealand and Singapore, to review the compliance requirements for performance-based communication and surveillance. The meeting endorsed terms of reference for the Group.

1.2 The Ad-Hoc Group met briefly during CNS-MET/15 and agreed, *inter alia*, that New Zealand should raise the issue at RASMAG/15.

Agenda Items 4 & 6

23/07/12

2. Discussion

2.1 New Zealand presented a paper on “Performance-Based Approach for Communications and Surveillance” to RASMAG/15:

Performance-Based Approach for Communications and Surveillance (IP/09)

5.35 New Zealand proposed that a performance-based communications and surveillance framework should apply performance specifications to FANS1/A CPDLC, ADS-C, and satellite communications (SATCOM) voice for air traffic control. This matter had been discussed at the recent CNS-MET/SG/15 meeting (25-29 June 2011), and a Draft Conclusion had been developed for consideration by APANPIRG.

5.36 The paper noted that, with an increasing proliferation of different aircraft FANS1/A systems, and given current ground system implementations, it was possible that ATC separations may be misapplied because the qualification criteria (set out in the GOLD), for communication and surveillance were not formally applied within the Asia/Pacific Region.

5.37 The Secretariat noted that this had been the subject of some internal discussion within ICAO as the GOLD criteria were guidelines, not standards, and had been understood to be strategic targets, most of which were not formally incorporated into the ATC separation standards themselves in PANS ATM (Doc 4444). Moreover, it was important that the region did not get out-of-step with global applications, and that the Separation and Airspace Safety Panel (SASP) had an opportunity to review and assess the potential impacts of this on previous modelling for ATC standards.

2.2 The topic was briefly discussed at RASMAG/16:

RCP and RSP Planning and Implementation (WP/23)

5.40 The United States presented WP/5 from the recent Second Satellite Data Link Operational Continuity Meeting (SOCM/2), which invited APANPIRG Sub-groups to consider including Required Communications Performance (RCP) and Required Surveillance Performance (RSP) in their work program and implementation initiatives. The meeting noted that Pacific ANSPs had been encouraged to implement GOLD system performance monitoring as an element of their respective Safety Management Systems (SMS).

5.41 New Zealand noted that although certification of aircraft systems was relatively straight-forward, it could be more difficult to determine an RSP or RCP within a given airspace because of the number of potential CSPs and Satellite Service Providers (SSP).

5.42 The meeting noted that the FIT-Asia Terms of Reference (TOR) contained requirements to determine and validate system performance requirements, establish a performance monitoring system and assess system performance based on information from the CRA. These formed the basis of a performance-based monitoring system and as the FIT-Asia reported to RASMAG; there was an opportunity for RASMAG to strengthen its oversight of RCP and RSP goals if these were formally established as requirements.

3. Action by the Meeting

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.
