



International Civil Aviation Organization

**The Twenty-Second Meeting of the APANPIRG ATM/AIS/SAR Sub-Group
(ATM/AIS/SAR/SG/22)**

Bangkok, Thailand, 25 – 29 June 2012

Agenda Item 4: Review outcome of relevant meetings

REGIONAL CIVIL/MILITARY COOPERATION

(Presented by the Secretariat)

SUMMARY

This paper presents information from the Asia/Pacific Civil/Military Cooperation Seminar/Workshop (Bangkok, Thailand, 28 February – 1 March 2012) and other civil/military initiatives relevant to Air Traffic Management (ATM).

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-6 Air traffic flow management

GPI-7 Dynamic and flexible ATS route management

GPI-8 Collaborative airspace design and management

GPI-12 Functional integration of ground systems with airborne systems

1. INTRODUCTION

1.1 The seminar/workshop was convened by (ICAO in partnership with the Civil Air Navigation Services Organisation (CANSO), the European Organisation for the Safety of Air Navigation (EUROCONTROL), the International Transport Association (IATA), the Federal Aviation Administration (FAA) of the United States and UVS International (UVSI).

1.2 The objectives of the event were to build on the Global ATM Forum on Civil/Military Cooperation (October 2009) outcomes to provide Asia/Pacific organizations assistance in this area, with a focus on Circular 330 *Civil/Military Cooperation in Air Traffic Management* (and to a lesser degree Circular 328 *Unmanned Aircraft Systems*). The key goals were to improve civil/military cooperation and coordination, by optimising airspace through flexible use airspace (FUA), to promote sharing of information between civil/military authorities and to consider the impact of ATM modernization.

1.3 The seminar/workshop was attended by seventy-three participants from thirteen States and four international organizations.

2. DISCUSSION

Convention on International Civil Aviation

2.1 Article 3 (a) of the Chicago Convention expressly excluded State aircraft from its scope of applicability, while Articles 3(b), (c) and (d) required the following.

- a) *This Convention shall be applicable only to civil aircraft, and shall not be applicable to State aircraft.*
- b) *Aircraft used in military, customs and police services shall be deemed to be State aircraft.*
- c) *No State aircraft of a Contracting State shall fly over the territory of another State or land thereon without authorization by special agreement or otherwise, and in accordance with the terms thereof.*
- d) *The ICAO Contracting States undertake, when issuing regulations for their State aircraft, that they will have due regard for the safety of navigation of civil aircraft.*

2.2 As a consequence of Article 3(d), States were required to safeguard civil aircraft navigation when setting rules for their State aircraft, but left it up to individual States to regulate these matters, generating a wide diversity of regulations.

Global ATM Forum

2.3 One of the key outcomes of the Global ATM Forum on Civil/Military Cooperation was the recognition that military representatives should participate at civil ATM conferences, so both civil and military viewpoints and needs would be clear.

Director's General of Civil Aviation Conference

2.4 The 47th DGCA Conference (Director's General of Civil Aviation Conference, 25-29 October 2010, Macao, China) agreed to the following Action Item:

DGCA Action Item 47/4

The Conference urges States/Administrations to:

- a) *maintain continuous Civil and Military coordination as greater participation of military authorities in civil forums is necessary to facilitate optimum utilization of airspace; and*
- b) *consider including their military counterparts in their delegations whenever possible.*

Asia/Pacific Civil/Military Cooperation Seminar/Workshop

2.5 The following findings were endorsed by the Civil/Military Cooperation Seminar.

- a) Civil/military coordination and cooperation must be based on trust, transparency and communication and that the planning, management and design of airspace should be based on both civil and military user needs;
- b) A process should be developed at national levels that considers civil and military priorities/needs and increases top level communication to improve understanding of each other priorities and constrains.

- c) Permanent civil/military working structures at national and regional levels are necessary. At the highest political level should be agreement to create State civil/military cooperation/coordination mechanisms where discussions of both civil and military needs can be negotiated on an equitable basis.
- d) Open Skies for Asia was perceived as a good forum to move the civil/military subject forward. The region was unique with numerous languages, cultural differences and challenges, this need to be considered when establishing any future direction.
- e) The application of FUA needed constant communication at the strategic, pre-tactical and tactical levels, as outlined in Circular 330. A key consideration in ensuring airspace use remains as flexible as possible was the need to provide adequate information to all key players in a timely manner.
- f) Regular review of controlled airspace and special use airspace was required to ensure that its establishment, size and operation was appropriate in terms of optimal civil/military operations.
- g) There was an increasing pressure for all airspace users to balance mission outcomes with financial aspects.

2.6 The workshop reviewed civil and military initiatives derived from exercises to improve civil/military cooperation. A demonstration of the EUROCONTROL Local and Regional Airspace Planning Tool (LARA) to support and enhance the airspace management process was provided to participants. This tool provided, among other functionalities:

- real-time exchange of airspace management data between involved actors enabling collaborative decision making; and
- enhanced situational awareness throughout the airspace management process.

2.7 As a result of discussions, the seminar/workshop developed the following recommendations, which were to be addressed by ICAO and States, as appropriate:

- a) Regional follow-up to the Asia/Pacific Civil/military Cooperation Seminar/Workshop was supported;
- b) Civil/military cooperation/coordination principles and practices should be elevated to the highest political level in the States in the Asia/Pacific regions, including the following:
 - Civil/Military working arrangements where discussion of both civil and military needs were able to be negotiated in a balance manner;
 - The importance of the interoperability of civil air transport infrastructure and national security was recognized;
 - The interoperability of civil and military systems including data sharing was emphasized.
 - ICAO was requested to update existing provisions related to civil/military cooperation/coordination and further develop guidance material related to airspace planning and management, including FUA;
 - Regular review of controlled airspace and special use airspace was encouraged to be undertaken by States to ensure its establishment, size, activation and operation is appropriate in terms of optimal civil/military operations.

Seamless ATM

2.8 Civil/Military cooperation was an important component in three separate but related areas of focus for the Asia/Pacific:

- Seamless ATM;
- Air Traffic Flow Management (ATFM); and
- ATM Contingency planning.

2.9 There were 10 civil/military elements in the recent Seamless ATM questionnaire, which was intended to contribute towards the overall ‘seamless’ assessment of airspace and systems of each State. In this connection, the civil/military elements constituted 29% of the overall assessment, reflecting the importance of this subject in terms of its effect on Seamless ATM operations. These elements are reflected in the following prerequisites for optimal Seamless ATM conditions:

- a) a formal civil/military body coordinates strategic civil-military activities;
- b) formal civil-military liaison takes place for tactical responses;
- c) percentage of military special use airspace does not grossly affect civil operations;
- d) special use airspace, including military airspace, is regularly reviewed for type of use, dimensions, notice of activation, and duration of timing;
- e) restricted and/or prohibited areas are not designated in international waters;
- f) integration of civil and military ATM systems as far as practicable;
- g) civil/military joint provision of navigation aids or aerodromes;
- h) civil/military ATS surveillance data is shared as far as practicable;
- i) Common training is conducted between civil and military ATM units; and
- j) Civil and military ATM units utilize common procedures as far as practicable.

ADS-B

2.10 Aircraft operating Automatic Dependent Surveillance – Broadcast (ADS-B) technology transmitted their position, altitude and identity to all listeners, conveying information from co-operative aircraft that have chosen to equip and publicly broadcast ADS-B messages. This there should be no defence or national security issues with the use and sharing of such data.

2.11 Some military transponders may support ADS-B using encrypted DF19 messages, but this data is not normally decoded or used at all by civil systems. In most cases today, tactical military aircraft were not ADS-B equipped or could choose to disable transmissions. In future, increasing numbers of military aircraft would be ADS-B capable, with the ability to disable these transmissions. ADS-B data sharing should not influence the decision by defence agencies to equip or not equip with ADS-B. Moreover, it is possible for States to install ADS-B filters that prevent data from sensitive flights being shared. These filters can be based on a number of criteria and typically use geographical parameters to only provide ADS-B data to an external party if aircraft are near the boundary.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) urge States/Administrations to encourage their military counterparts to participate in ICAO meetings, seminar and workshops;
- c) encourage States to improve coordination/cooperation with their military for optimal civil/military operations including FUA; and
- d) discuss any relevant matters as appropriate.

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