



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

*A United Nations Specialized Agency*

## **REGIONAL CIVIL MILITARY COOPERATION**

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**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

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# Regional Civil Military Cooperation



## WHY HAVE CIVIL MILITARY COOPERATION?

- Safety of both civilian and military aircraft
- Supporting the efficiency of the civil air navigation infrastructure – and thus the vital economy of the nation... consistent with military missions
- Protection of the environment through less emissions and fuel usage
- Effectiveness of military air operations, including intelligence sharing
- Improved access to ‘civil’ airspace for military operations and Special Use Airspace (SUA) for civilians
- In other words, it is a ‘win-win’



# Regional Civil Military Cooperation



## WHY HAVE CIVIL MILITARY COOPERATION?

Civil and military parties have common interests, including:

- access to airspace normally used by the other party using Flexible Use Airspace (FUA) principles;
- the efficiency of civil defence and Search and Rescue (SAR) operations, police, security, humanitarian aid and national emergencies;
- the operation of Unmanned Aircraft Systems (UAS);
- the need to take into account 'non-compliant' military or other State aircraft using special handling status (STS); given the increasingly complex civil aircraft equipage requirements;
- efficient handling by civil Air Navigation Services (ANS) of special military manoeuvres, such as formations and air refueling; and
- assurance of civil/military Air Traffic Control (ATC) system inter-operability and connectivity in a modern network-centric environment.

# Regional Civil Military Cooperation



## WHAT IS ICAO'S ROLE?

- Does NOT regulate the military
- Serves as an international platform to promote cooperation
- Determines and disseminate best practices
- Uses its regional framework to bring civil and military authorities together
- Raises awareness
- Facilitates the use of existing arrangements wherever they exist

Article 3 (d) of the Convention on International Civil Aviation states:

*The Contracting States undertake, when issuing regulations for their state aircraft, that they will have due regard for the safety of navigation of civil aircraft.*

Article 3 bis\* states:

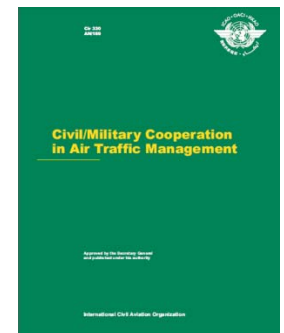
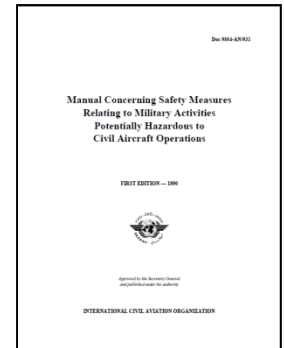
*a) The contracting States recognize that every State must refrain from resorting to the use of weapons against civil aircraft in flight and that, in case of interception, the lives of persons on board and the safety of aircraft must not be endangered. This provision shall not be interpreted as modifying in any way the rights and obligations of States set forth in the Charter of the United Nations.*

# Regional Civil Military Cooperation



## ICAO STANDARDS AND RECOMMENDED PRACTICES

- Annex 11 contains civil/military coordination provisions, including:
  - minimising interference with normal operations of civil aircraft;
  - minimising the size of the military airspace; and
  - civil – military early coordination and direct communication.
- Annex 2 —provisions on coordination with military authorities;
- Doc 4444 —procedures for strayed or unidentified aircraft;
- Doc 9443 — *Manual Concerning Interception of Civil Aircraft*;
- **Doc 9554** —military and ATS coordination requirements;
- Doc 9750 —Global Air Navigation Plan;
- Circular 328 *Unmanned Aircraft Systems*; and
- **Circular 330** *Civil/Military Cooperation in ATM*.



# Regional Civil Military Cooperation



## GLOBAL FORUM ON CIVIL/MILITARY COOPERATION (MONTREAL, 19-21 OCTOBER 2009)

- Peace and stability are essential for social and economic development.
- Mutual trust and confidence are principal requirements for collaboration between civil and military operations.
- Safety, security and efficiency are common civil and military values
- Efficiency for civil aviation means more capacity, less delays, cost and fuel burn (emissions).
- Efficiency for Military aviation means mission effectiveness (peace and through crisis) and realistic training- but equally more capacity, less delays, cost and fuel burn (emissions).
- Cooperation and coordination through communication.
- Civil/military cooperation is essential at national, regional and international levels.
- Airspace is a continuum and a common limited resource for all civil and military users.

# Regional Civil Military Cooperation



## DIRECTOR'S GENERAL OF CIVIL AVIATION CONFERENCE (25-29 OCTOBER 2010)

The 47<sup>th</sup> DGCA Conference urged greater participation of military authorities in civil forums to facilitate optimum utilization of airspace:

- civil representatives should consider including their military counterparts in their ICAO and non-ICAO meeting **delegations** whenever possible; and
- military **cooperation cells** in civil ATC Centres would facilitate appropriate civil/military tactical communication.

# Regional Civil Military Cooperation



## REGIONAL CIVIL MILITARY COOPERATION EXAMPLES (2013)

- Australia: maximising the use of airspace through **review** – resulting in a reduction of Australian restricted areas from 81 to 15. Different levels of entry status by the independent airspace authority, providing flexibility.
- China: military collaboration was a priority to release airspace and operate more flexibly, particularly to increase temporary routes and **reduce permanently segregated airspace**.
- Hong Kong, China: differing levels of civilian access to military airspace, and **uncertainty of information** from military for planning.
- India: 35% of Indian airspace '**military reserved**', so air traffic growth problematic with conflicting civil, military and space user requirements.
- Japan: **integrated** CIVIL/MIL planning, airspace authority vested in JCAB.
- Thailand: there was cooperation with the military, although about 70% of Thailand's airspace was affected by **SUA**.

# Regional Civil Military Cooperation



## ASIA/PACIFIC SEAMLESS ATM PLAN

The Seamless ATM Planning Group noted the following SUA aspects:

- many so-called 'prohibited' areas may be more correctly described as restricted areas as they can have military and even civil operations;
- restricted areas may not be designated over the high seas or in airspace of undetermined sovereignty (Annex 2);
- restricted areas need to be as small as practicable, while encompassing the activity therein;
- danger areas may be considered in lieu of restricted areas, if the pilot can determine the nature of the hazard; and
- SUA should only be activated when required\*

\*Activation by NOTAM rather than deactivation by NOTAM is preferable.

# Regional Civil Military Cooperation



## ASIA/PACIFIC SEAMLESS ATM PLAN

### Civil/Military Cooperation

5.56 ...FUA is an airspace management concept based on the principle that airspace should not be designated as purely civil or military, but rather as a continuum in which all user requirements are accommodated to the greatest possible extent...

5.57 ...SUA required careful assessment, review and management, to ensure the most appropriate airspace designation is used, and the airspace is operated in a cooperative manner... ...using risk-based assessments, ...through coordinated and cooperative methods if possible

5.58 Restricted areas... would be expected when the risk of an accident for non-segregated operations is higher than acceptable. However, lower risk military operations (e.g.: small calibre weapons at an established firing range) may only require the establishment of a danger area or even no SUA. Thus the type, dimensions, activation notice and duration ...should be appropriate

# Regional Civil Military Cooperation



## ASIA/PACIFIC SEAMLESS ATM PLAN

### Civil/Military Cooperation

5.62 Data sharing arrangements (including aircraft surveillance), are a key part of civil/military cooperation for tactical operational responses, and to increase trust between civil and military units. Data sharing between the civil and military could facilitate CDM, a vital component of ATFM. The Regional Surveillance Strategy espouses civil/military cooperation and system interoperability.

5.63 Aircraft operating ADS-B technology transmit 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. Thus there should be no defence or national security issues with the use and sharing of such data.

# Regional Civil Military Cooperation



## ASIA/PACIFIC SEAMLESS ATM PLAN (EFFECTIVE NOVEMBER 2015)

- 7.11 Civil/Military Airspace expectations are as follows:
- SUA should only be established after due consideration of its effect on civil air traffic by the appropriate Airspace Authority to ensure it will be:
  - used for the purpose that it is established;
  - used regularly;
  - as small as possible, including any internal buffers, required to contain the activity therein;
  - if applicable, operated in accordance with FUA principles (ASBU Priority 1); and
  - activated only when it is being utilised; and
- SUA should be regularly reviewed to ensure the activities that affect the airspace, and size and timing of such activity are accurately reflected by the SUA type, dimensions, activation notice and duration of activation.

# Regional Civil Military Cooperation



## ASIA/PACIFIC SEAMLESS ATM PLAN (EFFECTIVE NOVEMBER 2015)

7.42 Civil/Military ATM expectations are as follows:

- a national civil/military body should be formed to coordinate strategic civil-military activities\*;
- formal civil-military liaison should take place for tactical responses by encouraging military participation at civil ATM meetings and within ATC Centres;
- integration of civil and military ATM systems using joint procurement, and sharing of ATS surveillance data (especially from ADS-B systems) should be provided as far as practicable;
- joint provision of civil/military navigation aids should be encouraged;
- common training should be conducted between civil and military ATM units in areas of common interest; and
- civil and military ATM units should utilize common procedures as far as practicable.

\*Military training should be conducted in locations and/or at times that do not adversely affect civilian operations, particularly those associated with major aerodromes

# Regional Civil Military Cooperation



## SEARCH AND RESCUE

The recent tragedy of MH370 highlighted the need to strengthen a significant aspect of civil/military cooperation in the area of Search and Rescue (SAR). APANPIRG/25 noted the following as one of several lessons learnt from the tragedy, which would be incorporated into regional and/or global SAR material:

*CIVIL/MILITARY: It was apparent that a higher degree of civil/military coordination may have revealed the possibility of the MH370 course reversal much earlier after the initial alert advice from Viet Nam ATC, and may have saved as much as a week of fruitless searching in the wrong area, while increasing the chances of finding the Underwater Locater Beacon (ULB), given its limited battery life.*

# Regional Civil Military Cooperation



## SEARCH AND RESCUE

The draft Asia/Pacific SAR Plan has the following expectations:

- National SAR Committee with civil and where applicable, military members;
- The conduct of studies to integrate aviation and maritime SAR activities, and as far as practicable, civil and military activities, including joint training of staff and review of documentation to ensure harmonisation of procedures, and joint exercises; and
- SAR coordination plans should include procedures for joint aeronautical and maritime distress alert notification, support and response to both aircraft and shipping SAR incidents, including protocols for civil and military support and sharing of resources.
- Procedures enabling availability and deployment of suitably crewed and equipped SRUs, public and/or private, civil and military, for rapid SAR response; and protocols to request the use of military assets or vice-versa, for military SAR authorities to request civil assets.



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Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia/Pacific Regional  
Sub-Office, Beijing

Asia and Pacific  
(APAC) Office  
Bangkok

Thank You

A world map is shown in a light blue color. Eight dots are placed on the map, each connected by a thin line to a text label describing an ICAO office. The labels are: North American Central American and Caribbean (NACC) Office Mexico City; South American (SAM) Office Lima; ICAO Headquarters Montreal; Western and Central African (WACAF) Office Dakar; European and North Atlantic (EUR/NAT) Office Paris; Middle East (MID) Office Cairo; Eastern and Southern African (ESAF) Office Nairobi; and Asia and Pacific (APAC) Office Bangkok. A separate label for the Asia/Pacific Regional Sub-Office, Beijing, is also present with a line pointing to the region.