



*International Civil Aviation Organization*

**The Second Meeting of the South Asia/Indian Ocean ATM Coordination Group (SAIOACG/2)**

Bangkok, Thailand, 22 – 25 May 2012

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**Agenda Item 7: ANSP Coordination and Civil/Military Cooperation**

**Civil Military Cooperation for seamless ATM**

(Presented by Airports Authority of India)

**SUMMARY**

This paper presents the existing coordination mechanism that is being followed between Civil and Military agencies in India and the future Planning for Flexible Use Of Airspace. This paper also summarizes some of the initiatives taken by Airports Authority of India through effective coordination with Military for optimal use of National airspace.

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-3 Harmonization of level systems
- GPI-4 Alignment of upper airspace classifications
- GPI-6 Air traffic flow management
- GPI-7 Dynamic and flexible ATS route management
- GPI-8 Collaborative airspace design and management

**1. INTRODUCTION**

1.1 In India airspace stake holders are Civil, Military, Air Force, Navy, Army, HAL (a defence subsidy), Indian Space Research Organization (ISRO) and Defence Research and Development Organization (DRDO). In India 26 Civil Enclaves have been established at defence airports which are provided with following facilities by AAI:

- Civil Terminal building
- Security Equipments
- Baggage machines
- Terminal & Navigational facilities like ILS, DVOR/DME

- 1.2 Other facilities viz., Situation Data Display (SDD), Flight Data Display (FDD) and VCCS have also been provided to military for effective monitoring of the flights. At major airports, spaces for parking area for military flights have also been provided.
- 1.3 Table below shows the percentage of area comprising of restricted area in each FIR.

<b>FIR</b>	<b>Area of each FIR (NM<sup>2</sup>) (Land + Ocean)</b>	<b>FIR AREA (NM<sup>2</sup>) (Land Portion)</b>	<b>Restricted Airspace Area (Land Portion)</b>	<b>Restricted Airspace As %</b>
<b>Mumbai</b>	1399320	309600	52716	17%
<b>Kolkata</b>	426960	264960	49910	19%
<b>Delhi</b>	<b>315360</b>	<b>315360</b>	<b>220978</b>	<b>70%</b>
<b>Chennai</b>	663840	158400	41518	26%
<b>Total</b>	2805480	1048320	365122	35%

## 2. DISCUSSION

### 2.1 Existing Coordination Mechanism

Following coordination procedure is in vogue:

- a) Flight Plans of civil flights are provided to Air Force Liaison Unit to obtain Air Defence Clearance and Flight Plans of military flights are provided to ATC for route clearance.
- b) Telephone, Hot lines, AFTN, ECIL lines have been provided for exchange of FPL and other messages between Civil and Military.
- c) Monthly meetings are held between Airports Authority of India and Indian Air Force at Headquarter level to address operational issues.

### 2.2 Planning of Military Activities

Planning are carried out at strategic and tactical (dynamic) level as under:

#### *Strategic Planning:*

- a) Military exercises are planned well in advance so as to have minimum affect on smooth operation of civil flights;
- b) Full details related to activities are submitted at least 7 days in advance;
- c) Affected routes / areas are worked out by AAI;
- d) Alternate routings are worked out clear of the affected area.

#### *Dynamic coordination:*

- i) Direct corridors are allowed to Military aircraft as time is critical factor for them.
- ii) Weather deviations / direct routings through military areas are permitted through direct coordination

- 2.3 Some of the initiatives by Airports Authority of India which could be achieved through effective coordination with Military are appended below:

- Integration of civil and military radars in Chennai FIR has been completed; with this more dynamic routings will be possible;
- AAI has also offered their expertise in developing PBN procedures for Military airports;
- Air Traffic Flow Management is planned for implementation by December 2012 for six major airports in which Military will be major stake holder;
- Military officers will be available in Central ATFMU and will participate in implementing Traffic Management Initiatives (TMIs);
- Military airspace is handed over for Civil Use under flexible use of air space concept whenever it is not in use by military.
- Military has offered to provide radar service in NE part of India where Civil Radar coverage is not available. The proposal is under consideration of AAI.
- A number of ATS routes have been promulgated through Military areas either on H24 basis or for restricted hours. A list is appended below:

ATS Route	Old Route	New Route	Saving (NM)	Fuel Saving(Kg)	Reduction in Emission
Trivandrum - Hanimadhoo	R457 - R329 (481 NM)	L899 (244 NM)	237	1300	4108 Kgs
Male – Chennai	P762 - A465 (771 NM)	R457(659 NM)	112	1700	5372
GUGAL- DI VOR	A466 (445 NM)	M875(381 NM)	64 NM	1000	3160
Gaya - SAMAR	R460 - A466 (673 NM)	L 509(634 NM)	39 NM	600	1896
Kathmandu - Delhi	B345 - R594 (477 NM)	L626 (456 NM)	21	300	948
KAKID-BUTOP	N895 – L759 – A589 (842 NM)	M875(819 NM)	23	400	1264
PRA - SERKA	New route proposed as extension N877		44	700	2212
ASOPO - RK	L759 - G333 (614 NM)	P628 (669 NM)	55	800	2528

#### 2.4 Future Planning For Flexible Use Of Airspace

To improve the utilization of airspace further under flexible concept, a high level delegation was constituted by Government of India to study best practices in advanced states for implementation of flexible use of airspace through efficient Civil Military co-operation. The delegation members visited –

- i) ATC System Command Centre, (FAA) USA,
- ii) NATS(UK) and
- iii) Central Flow Management UNIT (CFMU) Euro Control, Brussels.

Based on the recommendation of the high level delegation formation of High level Airspace Policy body (HLAPB) to assess the National airspace usage is under consideration of Government of India. The body will consist of representatives from DGCA, AAI, IAF, Navy, MOD, ISRO, Airline representative and Secretary Ministry of Civil Aviation will be Chairman.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the initiatives taken by AAI to improve the utilization of airspace under flexible concept ; and
- b) discuss any relevant matters as appropriate.

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