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CIVIL-MILITARY COOPERATION AND FLEXIBLE USE OF AIRSPACE IN INDIA

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Civil-Military Cooperation



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India

- Six decades of robust Civil Military Cooperation
- Continuous engagement
- Mutual trust
- Joint use of airports
- Joint use of air navigation facilities



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India has embraced the global philosophy, that states:

- Airspace should no longer be designated as either military or civil, but should be considered as one continuum and national asset
- Airspace should be used flexibly on a day-to-day basis and any necessary airspace segregation should be of a temporary nature.



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PERIOD	DETAILS
Jan, 2007	DGCA - India, submits a report on Flexible Use of Airspace in India
2008/2009	Representatives of Civil-Military authority, including AAI and DGCA delegation visits USA, NATS and Eurocontrol to study FUA implementation
Sep, 2012	MoCA proposed the implementation of FUA, constitution of a NHLAPB, authorizing the NHLAPB to set up appropriate committees to take suitable decisions to implement FUA in India



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PERIOD	DETAILS
Mar, 2013	Government of India approved the implementation of FUA and the constitution of NHLAPB
May, 2013	Draft Roadmap for the implementation of FUA in India prepared
Oct, 2013	National Airspace Management Advisory Committee constituted.



Flexible Use of Airspace



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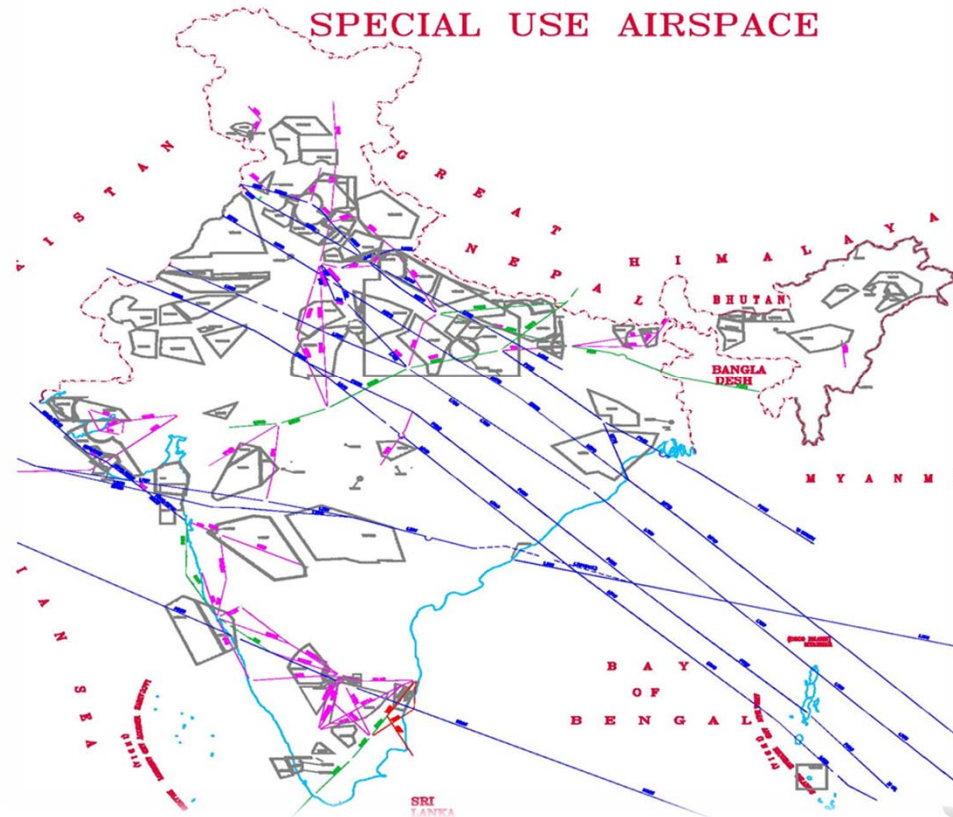


Flexible Use of Airspace



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ATS ROUTES PASSING THROUGH SPECIAL USE AIRSPACE



Flexible Use of Airspace



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Existing Liaison

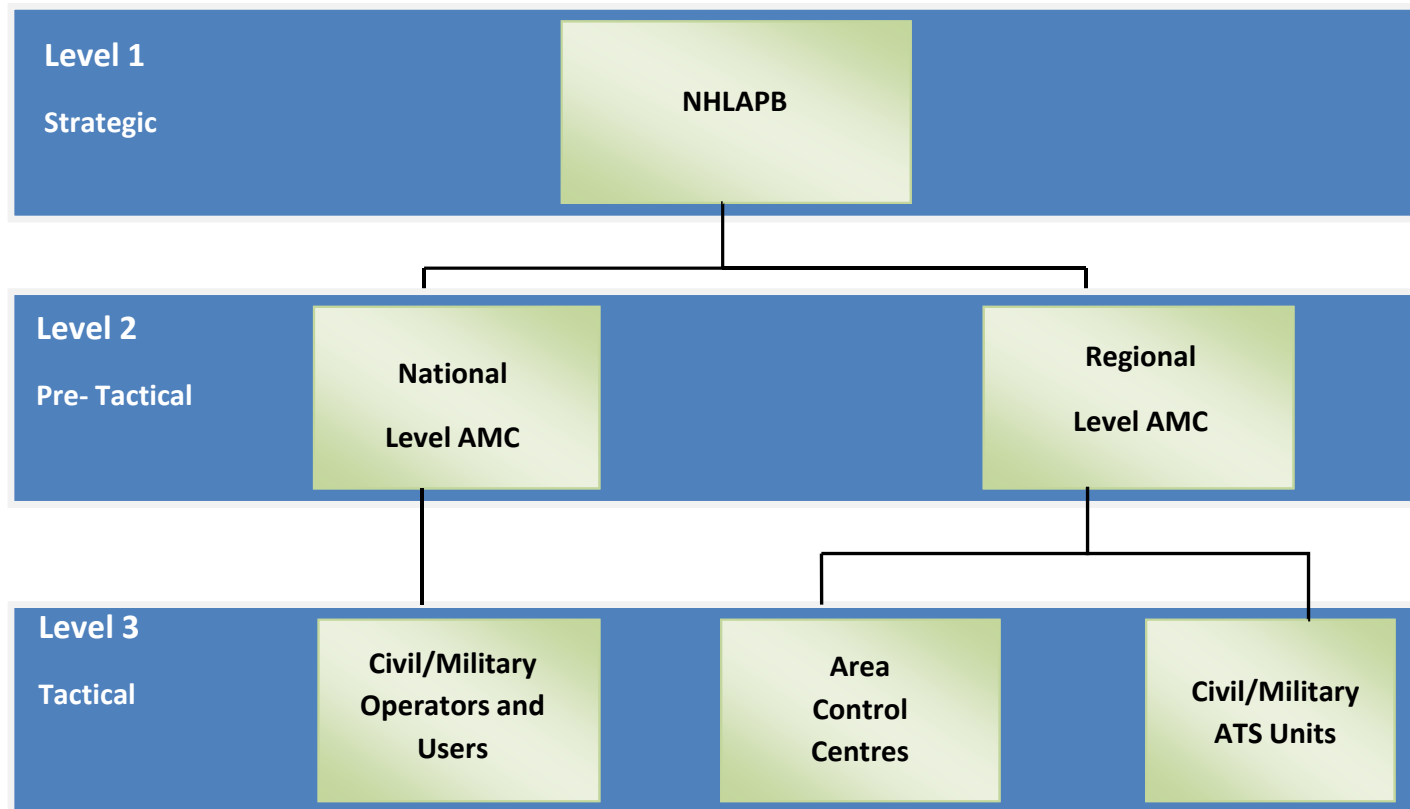
- Surveillance (radar) data from various surveillance sensors to the Air Defense Direction Center (ADDC) of Integrated Air Command Control System (IACCS)
- Military Liaison Unit (MLU) for Civil-Military liaisoning
- Joint Command and Analysis Centre (JCAC)
- Navigational Aids at Joint Use Aerodromes
- CDM through Air Traffic Flow Management (ATFM –CCC)



Flexible Use of Airspace



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Flexible Use of Airspace



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Terms of Reference - NHLAPB

- Implementation of Flexible Use of Airspace in India
- Formulation of National Airspace Use Policy and carry out necessary strategic planning work, taking into account national and international airspace requirement
- The body also shall develop policy guidelines and procedures for airspace allocation for ASM-1, ASM-2 and ASM-3 level and to Implement Conditional Routes as per the three categories



Flexible Use of Airspace



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Terms of Reference - NHLAPB ...

- Continuous assessment / reassessment of national airspace usage requirements of various stakeholders and route structure
- Establishment of flexible airspace use structures and the introduction of procedures for the allocation of these airspace structures
- To improve the safe and effective regulation and management of airspace and its supporting infrastructure



Flexible Use of Airspace



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Terms of Reference - NHLAPB ...

- To classify the airspace allocation in two categories; Permanently Restricted Areas and Temporary Segregated Areas or Temporary Reserved Areas
- To improve co-ordination for implementation and harmonization of Civil and Military ATC system with common features and applications
- Standardized CNS / ATM infrastructure at Airports



Flexible Use of Airspace



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Terms of Reference - NHLAPB ...

- To set up appropriate committees / sub-committees / Advisory Bodies at appropriate levels for implementation or taking suitable decisions for the implementation of the FUA in India
- Any other issue vital to FUA in India



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Other Level-1 bodies assisting NHLAPB

- National Airspace Management Advisory Committee (NAMAC) constituted to assist NHLAPB
- FUA Secretariat to assist NHLAPB/NAMAC
- AMCs being constituted at National and Regional Levels
- A Technical sub-committee has been constituted to prepare a report technical interoperability of systems and ICDs

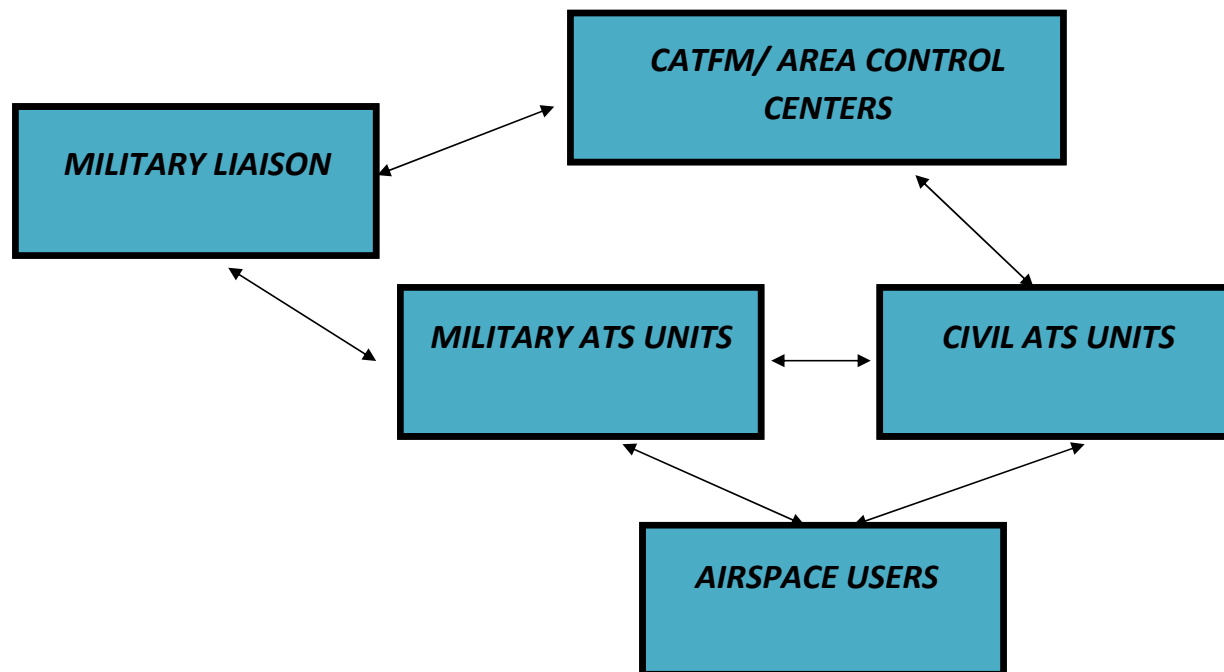


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Dynamic Airspace Management



CMC & FUA in India



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- The Civil-Military Cooperation in India, even prior to FUA implementation, has been very effective
- There are several Domestic/International ATS routes which ply through restricted airspaces of Military ; e.g., R460, L759, W20, W114
- Commercial Civil Aircraft operate to about 26 Military Airports such as Srinagar, Pune, Agra



CMC & FUA in India



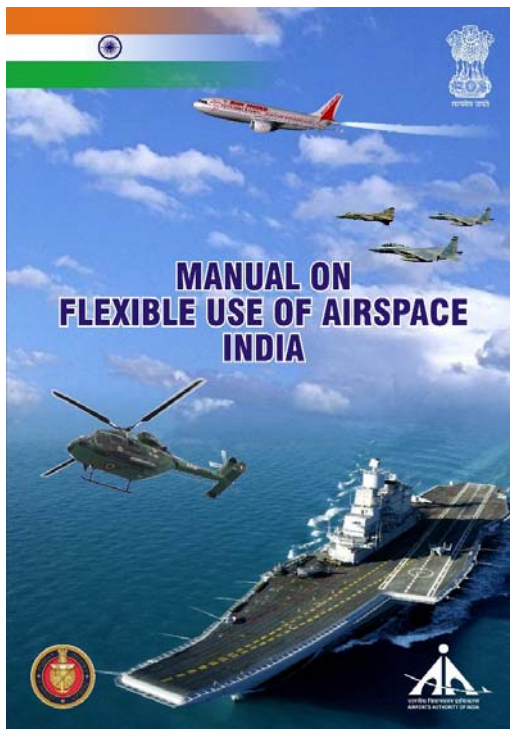
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- International Sked/Non-Sked flights have been operating to Goa airport belonging to Indian Navy, for many years
- 14 RNP10 International ATS routes such as L301, M770, M875 and P646 have been established through Military Airspace which are available during night (CDR-1)



CMC & FUA in India

FUA India: Milestone Event



NHLAPB in its fourth meeting has adopted the FUA Manual



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FUA work in progress

- Review of existing Restricted/Danger Airspace under process
- Pilot project to validate the Manual on FUA, India
- Gap Analysis for civil military systems' interoperability.
- Implementation of Central Air Traffic Flow Management System (associated CADF) in India





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Thank You