



INTERNATIONAL CIVIL AVIATION ORGANIZATION

A United Nations Specialized Agency

ICAO EUR Region Civil/Military Cooperation Seminar/Workshop

ICAO Training Institute Kyiv and UkSATSE
Boryspil, Ukraine, 28 - 31 October 2013

Introduction



- Results from the Global ATM Forum should be communicated via a global campaign to support States in the implementation of provisions relating to civil/military cooperation and coordination
- ICAO should serve as an international platform to facilitate and enhance Civil/Military Coordination as well as to provide the necessary follow up activities



- Recommendation 4/5 – Civil/military coordination/cooperation and sharing of airspace

Seminar/Workshop Objectives



- This seminar/workshop was the 4th event of the worldwide campaign and the sessions consisted of presentations, theoretical and practical activities for improving the civil/military cooperation and coordination, as well as interoperability
- The seminar/workshop focussed on the following objectives:
 - a) Main results from the ICAO Global Civil/Military Cooperation Forum and overview of Circular 330;
 - b) Roll-out of Circular 330 AN 189 Civil/Military Cooperation in Air Traffic Management;
 - c) Optimizing use of the airspace;
 - d) Improving Civil/Military Cooperation and Coordination;
 - e) Information sharing between Civil/Military Authorities; and
 - f) Impact in the modernization efforts of the States.

Meeting Programme Seminar



ICAO Seminar, 28.10.2013 at ICAO Training Institute Kiev, Ukraine

- Opening and Welcome
- Outcome from ICAO Global Civil/Military Cooperation Forum and overview of Circular 330
 - Optimizing the relationship: Why Should Civil-Military Cooperate?
 - Convey the message from ICAO ATM Global Civil/Military Cooperation Forum and Circular 330-AN/189
- Setting the Scene for Civil/Military Cooperation in EUR Region
 - ICAO EUR Office presentation on Civil/Military Cooperation in Europe
 - IATA presentation- Civil/Military Cooperation from the Airspace User perspective
 - NATO Presentation- Military perspective on Civil/Military Cooperation
- Civil/Military Cooperation and Coordination Developments/Challenges in EUR Region
 - EUROCONTROL presentation on Civil/Military Cooperation/ Airspace management matters (CMAC)
 - NATO/EUROCONTROL ATM Security Coordinating Group (NEASCOG) presentation
 - Industry perspective from Boeing
 - EUR RMA presentation on State aircraft aspects/issues when operating in RVSM airspace
 - Requirements to the UAS Operators for Ensuring Flight Safety
 - Problems of Safe Airspace Usage by Piloted and Remotely Piloted Aircraft Systems
- Discussions, Question & Answers, Exchange of Perspectives, Conclusions
- Get to know each other meeting

Meeting Programme Seminar



ICAO Seminar, 29.10.2013 at UksATSE Boryspil, Ukraine

- Welcome
- Panel # 1 Civil/Military Collaboration – Regulatory Aspects
 - EUROCONTROL Performance based certification for military airborne systems in order to meet civilian ATM/CNS requirements
 - Concept of Unified Air Surveillance Systems in Ukraine
- Panel # 2 Optimize the use of the airspace and operational capabilities/enablers
 - Future harmonisation initiatives, OAT-IFR Transit Service
 - Civil/Military cooperation in Air Traffic Management, the Ukrainian experience
 - NATO Presentation- Military perspective on Civil/Military Cooperation
- Panel # 3 Discussions on civil/military interoperability and challenges
 - Seamless military integration into the changing civil network
 - Crucial civil/military interoperability aspects
 - Challenges for the military from ICAO, FAA and EU modernisation programs
 - How to improve civil military interoperability in the future
- Discussions, Question & Answers, Exchange of Perspectives, Conclusions
- Wrap-up of Seminar part
- Visit of UksATSE and the Ukraerocenter

Meeting Programme Workshop



ICAO Workshop, 30.10.2013 at ICAO Training Institute Kiev, Ukraine

- Introduction and Setting the scene for Exercises
- Exercise 1: Fundamentals of good communications
 - Introduction to the elements of good communications
- Exercise 2: Preparation of static airspace plan
 - Develop an airspace plan reflecting civil and military airspace requirements with associated priority rules
- Exercise 3: Preparation dynamic airspace plan
 - Develop and explore an actual airspace use plan for day of operations
- Visit to the Museum of Civil Aviation in Zhulyany

Meeting Programme Workshop



ICAO Workshop, 31.10.2013 at ICAO Training Institute Kiev, Ukraine

- Exercise 4: Initiatives (including simulation) to improve Civil/Military Cooperation
 - Civil initiatives to improve civil/military cooperation
 - Military initiatives to improve civil/military cooperation
 - Challenges for each approach
 - The aim of simulation will be to show what agreed improvements measurements can bring
- Discussions, Question & Answers, Exchange of Perspectives, Conclusions
- Wrap-up of Workshop part
- Recommendations from both parts of the event
- Closing remarks

Conclusions Seminar Day 1



Outcome from ICAO Global Civil/Military Cooperation Forum and overview of Circular 330-AN189

- The experience in parts of the ICAO EUR Region identified that the civil/military integration and the joint system approach can work very well

Setting the scene for Civil/Military Cooperation in the EUR Region

- Civil/Military cooperation & coordination is a key enabler for a seamless, interoperable ATM System
- There is a strong requirement to balance customer needs (military mission effectiveness & civil airspace user flight efficiency) in day-to-day and also in crisis/conflict situations
- Secure and safe airspace is a pre-condition for civilian airspace user operations and the joint-cooperative-integrated use of airspace is the common interest of all involved stakeholders
- There is a growing demand to access airspace with UAS/RPAS
- Global/Regional traffic growth projections from industry indicate an average 5% growth per year for next 20 years with parts of the Region having even higher growth rates (EUR-ASIA, EUR-MID EAST)

Conclusions Seminar Day 1 ...



Developments and Challenges of Civil/Military Cooperation and Coordination in the EUR Region

- Military is concerned that civil aviation flights are not making optimal use of the released airspace. The reasons may be that DCTs are not always the best route, availability and processing of the information, predictability, etc. and should be further investigated
- Advanced airspace management projects (e.g. A-FUA) require a clear, standardized and system compatible AIM support (NOTAMs too static for dynamic airspace management in network centric environment)
- States should ensure that they have, or are in the process of, implementing procedures for flexible use of airspace based on operational requirements (airspace volume and advance notice information)
- ATM Security developments in Europe are one good example of efficient civil/military coordination
- Strategic vision needed (such as Air Transport Advisory Group roadmaps or States collaborative future airspace plans) so that all involved stakeholders work towards the same goal

Conclusions Seminar Day 1 ...



Developments and Challenges of Civil/Military Cooperation and Coordination in the EUR Region

- Based on a global vision, Regional or sub-regional plans should guide States on the improved civil/military cooperation and the cooperative use of airspace (incl. flexible use of airspace, airspace design, civil/military interoperability, crisis management, support to humanitarian assistance operations)
- State Aviation Authorities need better guidelines and should share experiences on the airworthiness and certification aspects of State aircraft
- UAS/RPAS insertion into non-segregated and/or controlled airspace requires an integrated and systematic safety approach
- There is now a unique window of opportunity to benefit from the military expertise on UAS/RPAS implementation in order to develop (collaborate-cooperate-coordinate) the necessary institutional framework (incl. standardisation and certification) in the next 5 years

Conclusions Seminar Day 2



Panel 1 Regulatory Aspects

- Instead of more regulation, a smarter and more requirement-based regulation for civil and military airspace users is needed

Panel 2 Airspace Optimisation

- Harmonised rules and specific procedures for military IFR flights in controlled airspace can give significant benefits to military operations (incl. formation flights and air-to-air refueling)

Panel 3 Discussions on Civil/Military interoperability challenges

- Military airspace users cannot afford to be non-interoperable with new developments, but this does not mean that they need to operate under exactly the same rules or with exactly the same equipment as civilian airspace users
- Militaries have different interoperability requirements and therefore they need much longer time for transition periods (10-15 years)
- A common shared civil military understanding with regard the future developments is preferred, rather than States mandating a certain infrastructure within their airspace from a fixed date

Conclusions Workshop



Practical Exercises and Simulations on Civil/Military Cooperation and Coordination

- Communication and Trust are pre-requisites for the integrated use of airspace
- Common objectives for the use of airspace need to be defined and agreed between all involved stakeholders
- Airspace Management (ASM) support tools (e.g. LARA is available for all EUROCONTROL Member States free of charge) are available to support the optimised planning and use of airspace

Proposed future actions



States and stakeholders

- States, with the assistance of IATA and EUROCONTROL Network Manager (NM), should seek to determine why aircraft operators are not always taking advantage of released Special Use Airspace when it is available
- States within the EANPG framework assess the current status of civil/military coordination (e.g. FUA implementation) and develop an action plan on how this coordination can be improved in the future through various interoperability measures
- In order to accommodate the growing need for optimised use of airspace, States should always seek to incorporate the different operational airspace user requirements for flight efficiency as well as mission effectiveness reasons

Proposed future actions



ICAO

- ICAO should create a global platform involving all States, stakeholders and international organisations in order to align the various civil/military coordination developments to the Global Air Navigation Plan
- ICAO should consider the use of targeted 'Go Teams' activities (separate or integrated into existing PBN Go Teams) in order to facilitate and help/guide States in the implementation of FUA and enhanced civ/mil coordination
- ICAO should provide a list of accredited experts or expert organizations that are willing and able to act as Subject Matter Experts (SMEs)
- ICAO should enhance its guidance material pertaining to airspace management which would add elements such as:
 - Generic guidance on airspace volume requirements for various purposes such as gunnery range, surface operations, maritime operations, air-ground, air-air, missile and rocket launches, etc.
 - Simplified guidance on steps to be followed for the coordination of FUA with all involved stakeholders

All papers and presentations



- Paper copies distributed
- On CDs
- On the ICAO EUR/NAT website:
http://www.paris.icao.int/documents_open_meetings/files.php?subcategory_id=237

