



International Civil Aviation Organization

EUR Civil/Military Cooperation Seminar/Workshop

Civil/Military Cooperation in the ICAO EUR Region

Sven Halle

ICAO EUR/NAT Office

Kyiv, Ukraine

28 to 31 October 2013

Global aspects from AN-Conf/12

12th Air Navigation Conference

ICAO Headquarters
Montreal, Canada
19-30 November 2012



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

That States:

a) planning and implementation regional groups, and ICAO to analyse the benefits that could be achieved through improved civil/military cooperation and sharing of the airspace serving international traffic flows and express the results of this analysis in terms of:

- capacity increases and reduction in routine delays as measured by traffic volumes on major traffic flows;
- document fuel savings and emission reductions through the use of the fuel savings estimation tools; and
- other additional benefits;

b) based on the analysis made by States, planning and implementation regional groups, and ICAO, urge States to develop plans to implement improvements for the cooperative use of airspace related to the top areas of opportunity and establish concrete targets using tools already available for this purpose; ...

Global aspects from AN-Conf/12

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

That States:

c) in relation to international traffic flows, for each ICAO region urge the planning and implementation regional groups and their associated States to identify the top areas of opportunity that could benefit the most from improvements in civil/military cooperation and sharing of the airspace and develop concrete targets for improvement;

That ICAO:

- d) develop a set of criteria or metrics to enable objective measurement of progress in civil/military cooperation; and
- e) continue to develop guidance material for States on the flexible use of their airspace, airspace design, interoperability and integration of humanitarian assistance flights in crisis response scenarios in their airspaces to facilitate integrated use of the airspace.

Global shift in traffic flows




Firefox | File Edit View History Bookmarks Tools Help
Tutorials - Embed and Edit GIS Maps... | Comparing World Traffic Flow 2002-2... |
gis.icao.int/comparetraffic/ | icao world traffic flow

Comparing World Traffic Flow 2002-2010 by City Pair (International and ...
Zoom Drag and Click on line for more Info! Major Routes in Red, Orange, Yellow, Green, Blue. How do Traffic Flow change in each Region?

ICAO 2010 WORLD TRAFFIC FLOW | ICAO 2002 WORLD TRAFFIC FLOW

Legend ▾

2010




Description ▾

This ICAO Map was created in **2012** with the AOG Data **2010**, at that time:
We have **4,300 Cities** for **43,875 Routes** and **31,096,200 movements**.
Each City pair is bidirectional movements for each direction.

Waiting for gis.icao.int...

2002



Description ▾

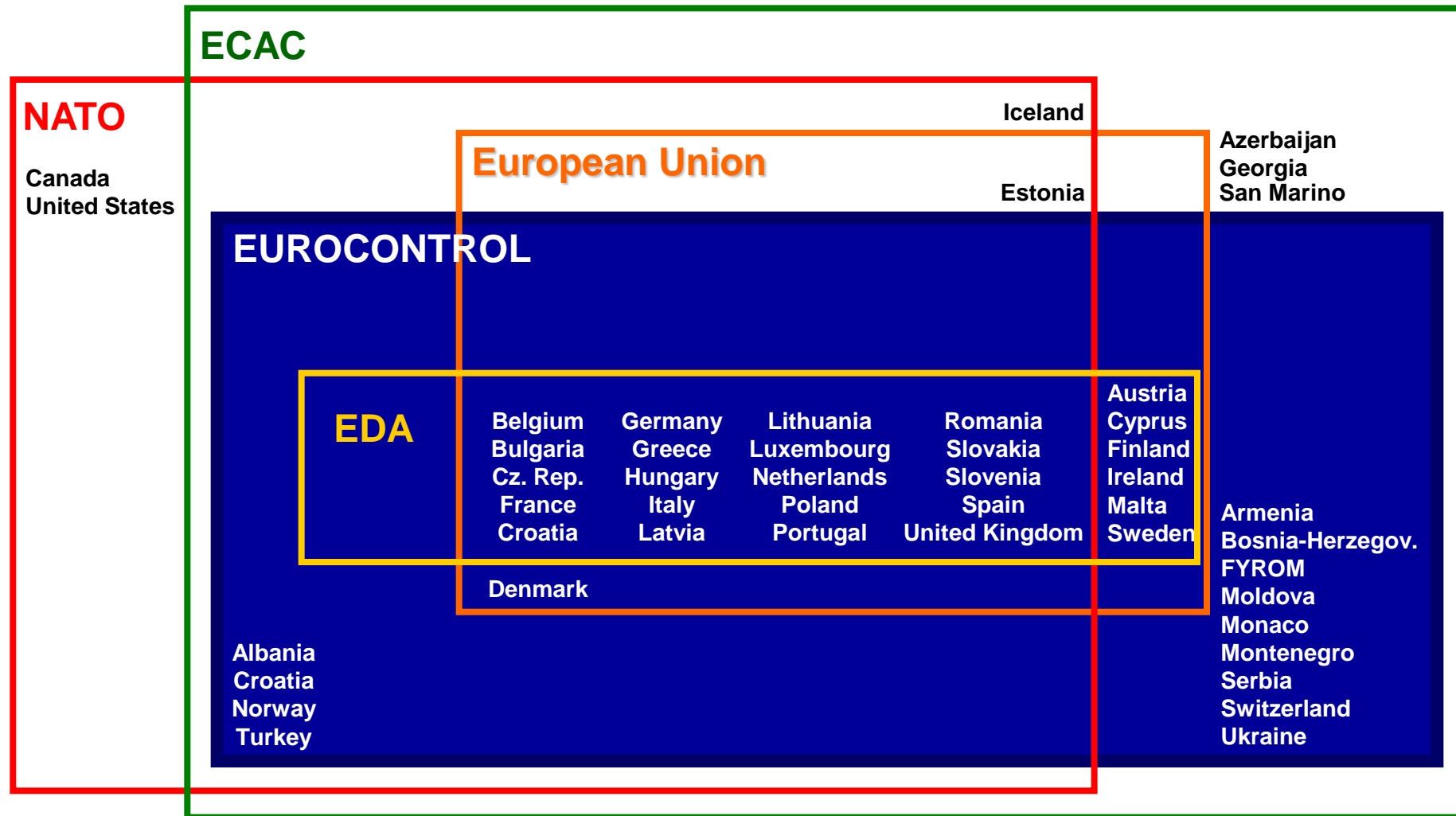
This ICAO Map was created in **2002** with the AOG Data, at that time:
We have **3,811 Cities** for **35,705 Routes** and **26,296,329 movements**.
Each City pair is bidirectional movements for each direction.

Regional environment



- Accredited to 56 Contracting States and two non-Contracting States in EUR, NAT, MID and AFI Regions
- Working with Canada and USA on North Atlantic issues
- Working with 11 international organisations at regional level

Sub-Regional environment



Common interest

- **Civil and military stakeholders have many common interests, including:**
 - access to airspace normally used by the other party;
 - the efficiency of civil defence and SAR operations, police, security, humanitarian aid and national emergencies;
 - the operation of Unmanned Aerial Systems (UAS)/Remotely Piloted Aircraft Systems (RPAS);
 - the need to take into account ‘non-compliant’ military or other State aircraft using special handling status, given the increasingly complex civil aircraft equipage requirements;
 - efficient handling by civil ANSPs of special military operations, including manoeuvres, formation flights and air refueling; and
 - assurance of civil/military ATC system interoperability and connectivity in a modern, network-centric environment.



- **European Union Single European Sky Initiative**



- The main objective of the SES is to reform ATM in Europe in order to cope with a sustained air traffic growth and air traffic operations under the safest, more cost- and flight-efficient and environmentally friendly conditions. This implies de-fragmenting the European airspace, reducing delays, increasing safety standards and flight efficiency to reduce the aviation environmental footprint and reducing costs related to service provision
- The Civil-Military coordination is an essential requirement of the SES legislative framework (SES and SES II Regulations) and the legal/institutional framework includes military participation (Single Sky Committee)
- Implementing Rules have been developed for advancing the efficient use of airspace, common provisions for the flexible use (civil and military) of airspace and harmonisation of airspace classification in the upper airspace
- Single European Sky ATM Research (SESAR)



- **European Union Single European Sky Initiative**



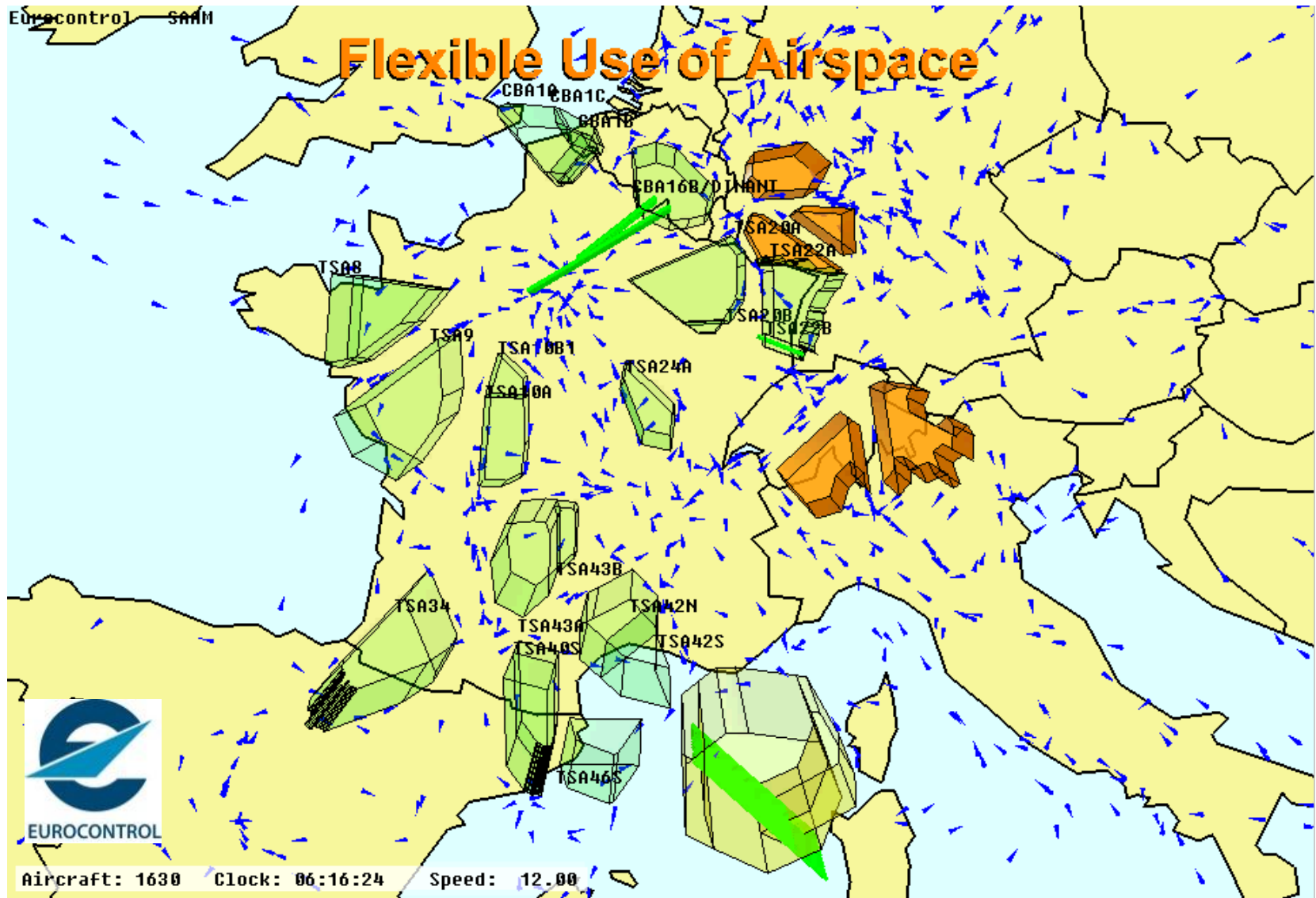
- The SES is not directly applicable to the Military as defence and security are activities which remain the sole responsibility of the State.
- However, as the European transport policy directly impacts the organisation of the airspace which is used by all, civil and military, the SES has a direct impact on the Military and its access to airspace.
- Subsequently, the Member States have to make important decisions related to how they intend to instruct their military forces to adapt to the SES developments.
- In order to help the States in this exercise, EUROCONTROL (with the civil-military SES implementation unit) is providing support and advice tailored to the specific needs and intentions of the requesting States.



- **EUROCONTROL is a unique intergovernmental civil-military organisation in ATM, entrusted by its 39 Member States with responsibility for civil-military (ATM) coordination, interacting with NATO (on military CNS and ATM security)**
- **EUROCONTROL Military expertise is used to support**
 - Flexible Use of Airspace implementation (airspace segregation for military use can only be temporary)
 - Military/Military and Civil/Military systems interoperability
 - Collaborative Decision-Making between civil and military
 - Adoption by States of measures in ATM security
 - Mutual understanding of civil and military ATM-related requirements (SESAR)
 - Adoption of a common civil-military performance-based approach
 - Harmonisation of military requirements and adoption of best practices



EUROCONTROL FUA implementation



What about the other 20 mio km² of airspace



Considerations and constraints

- **Military remains responsible for**
 - national security and defence
 - its own rulemaking
 - oversight and operations (incl. Air Navigation Service Provision)
- **Military will continue to have commitments to international security and defence organizations**
- **Airspace needs to be jointly shared between civil and military users to enable both to fulfill their individual requirements**
- **Civ/Mil cooperation and coordination are key enabler**



Seamlessness and Interoperability

A seamless, interoperable, ATM system based on:

- Seamless safety across all Regions
 - For all users during all phases of flight
- Physical connectedness
 - Homogeneous ATM areas and Major Traffic flows
- Common requirements, standards and procedures
 - Integration (TMAs, aerodromes)
 - Performance based equipment carriage requirements
- Common aeronautical information exchange models
- Achieving environmental objectives





Thank you