NORTH ATLANTIC TREATY ORGANIZATION
ORGANISATION DU TRAITÉ DE L'ATLANTIQUE NORD

NATO & airworthiness

Military Airworthiness Conference

18th – 19th October 2023, Bonn

NATO airworthiness & certification officer : M. Stéphane Copéret

Defence Investment
Investissement pour la Défense

Aerospace Capabilities
Capacités Aéronautiques

Agenda :

- NATO at a glance.
- About military airworthiness.
- NATO & airworthiness.
- The airworthiness recognition program.
- Curent topics & new challenges.

NORTH ATLANTIC TREATY ORGANIZATION
ORGANISATION DU TRAITÉ DE L'ATLANTIQUE NORD

NATO's structure

NATO at a glance

NATO delegations

Military Representatives

NUCLEAR PLANNING GROUP

NORTH ATLANTIC COUNCIL

MILITARY COMMITTEE

INTERNATIONAL MILITARY STAFF

SECRETARY GENERAL

DIVISION INVESTMENT

INTERNATIONAL STAFF

SUBORDINATE COMMITTEES....

AVIATION COMMITTEE

AIRWORTHINESS ADISORY GROUP

NATO Agencies

INTEGRATED MILITARY COMMAND STRUCTURE

ALLIED COMMAND TRANSFORMATION

ALLIED COMMAND OPERATION

NATO & partnerships.

NATO at a glance

EAPC Euro-Atlantic Partnership Council	PatG Partners across the Globe	MD Mediterranean Dialogue	ICI Istanbul Cooperation Initiative
Armenia	**Australia**	Jordan	Bahrain
Austria	Japan	Morocco	United Arab Emirates
Azerbaijan	Mongolia	Tunisia	
Bosnia-Herzegovina	**New Zealand**		
Georgia	South Korea		
Ireland			
Kazakhstan			
Moldova			
Serbia			
Sweden			
Switzerland			
Ukraine			
Kyrgyz Republic	Colombia	Algeria	Kuwait
Malta	Iraq	Egypt	Qatar
Tajikistan	Pakistan	Israel	
Turkmenistan		Mauritania	
Uzbekistan			

Interoperability Platform Members

About airworthiness.

- Airworthiness = requirements, processes, actors, organisations ruling & surrounding an aircraft.

- Airworthiness =
  - How to design an aircraft.
  - How to produce an aircraft.
  - How to maintain an aircraft.
  - How to manage an aircraft.
  - How to train technician.
  - How to certify and oversight.

- Airworthy aircraft = safe aircraft = fit to fly safely.
- Airworthiness = the 1st pillar of aviation safety.

Why an military airworthiness?

Major differences between …..

military aviation	civil aviation
Built for wartime : fight & combat **➔ Built to handle into unsafe aeronautical environment**	**Built for peacetime : mainly transportation Safe** **➔ Built to handle into safe aeronautical environment**
Mission driven: Combat, dog fight, deterrence, bombing, air to air, air to ground, attack, close support, transportation, paratroop, recognition, electronic warfare, airborne radar, air to air refuellling, recognition, rescue, ….	**Transportation driven.**
Diversity of systems very specific: Ejection seats, weapons carrying, missiles, radar, optronical equipment's, electronic warfare, jammers, guns,…	**Homogenous type of systems.**

Why a military airworthiness?

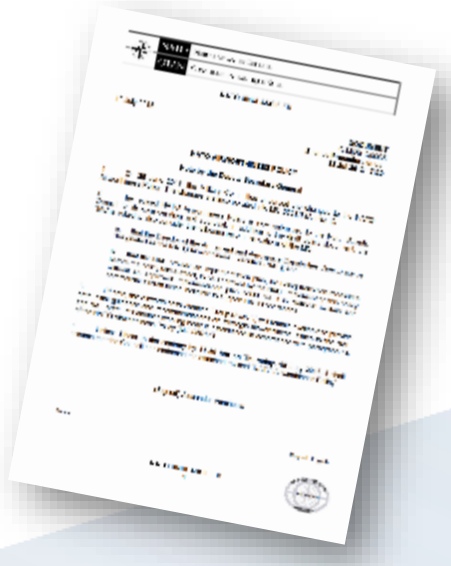
- ICAO Chicago Convention : Civil & Military separated
- Need for specific rules adapted to military constraints
- Dramatic events (NIMROD, YAK42…)
- A general trend : creation of MAAs

MAA NLD, DAAA, DGA + DSAE, CA MAA, NMAA, HUN MOD SAD, BMAA, DGAM, US NAVY NAVAIR, US AIR FORCE AFLCMC / EN-EZ, US ARMY CCDC / AVMC /AED, LUFABW, VLO, UK MAA, MAA-CZE, DK TAA, SK MAA, SSVZ PP, MAA NM, HNMAA, TURAF, DASA, SWISS MAA, FLYGI, FIMAA, ….

NATO & airworthiness ➔ Origins.

- Crash of a YAK 42 in May 2003 in Turkey repatriating Spanish troops from the Afghan military theatre.
- 75 victims.
- Airworthiness of the aircraft (among others) put forward as a cause of the tragedy.
- NATO is being challenged and prosecuted: aircraft chartered by NAMSA for the Spanish MoD.

NATO's airworthiness policy.



- A policy to assure the Alliance of airworthiness and associated risks.
- Applicable to all air assets owned, leased, chartered or operated by NATO by one of its members, a partner or a third party.
- NATO does not replace national aviation authorities, which remain sovereign.
- Flight operations out of the scope.
- The NATO Airworthiness Executive is not an airworthiness authority.

➔ **Airworthiness recognition of Military and Civil aviation authorities of NATO Nations and Partners**

Airworthiness within NATO's structure

Political level

Expertise level

NATO
North Atlantic Council

AVC
Aviation Committe

AWAG
Airworthiness Advisory Group

Advice NAC on aeronautical safety issues,
= Total System Approach to Aviation.
(a holistic approach to aviation safety)

Advice AVC on airworthiness subjects

About the AWAG:

AWAG is an advisory tool for AVC.

Panel of subject matter experts in airworthiness representative of Alliance's members and partners.

Mainly focused currently on recognition.

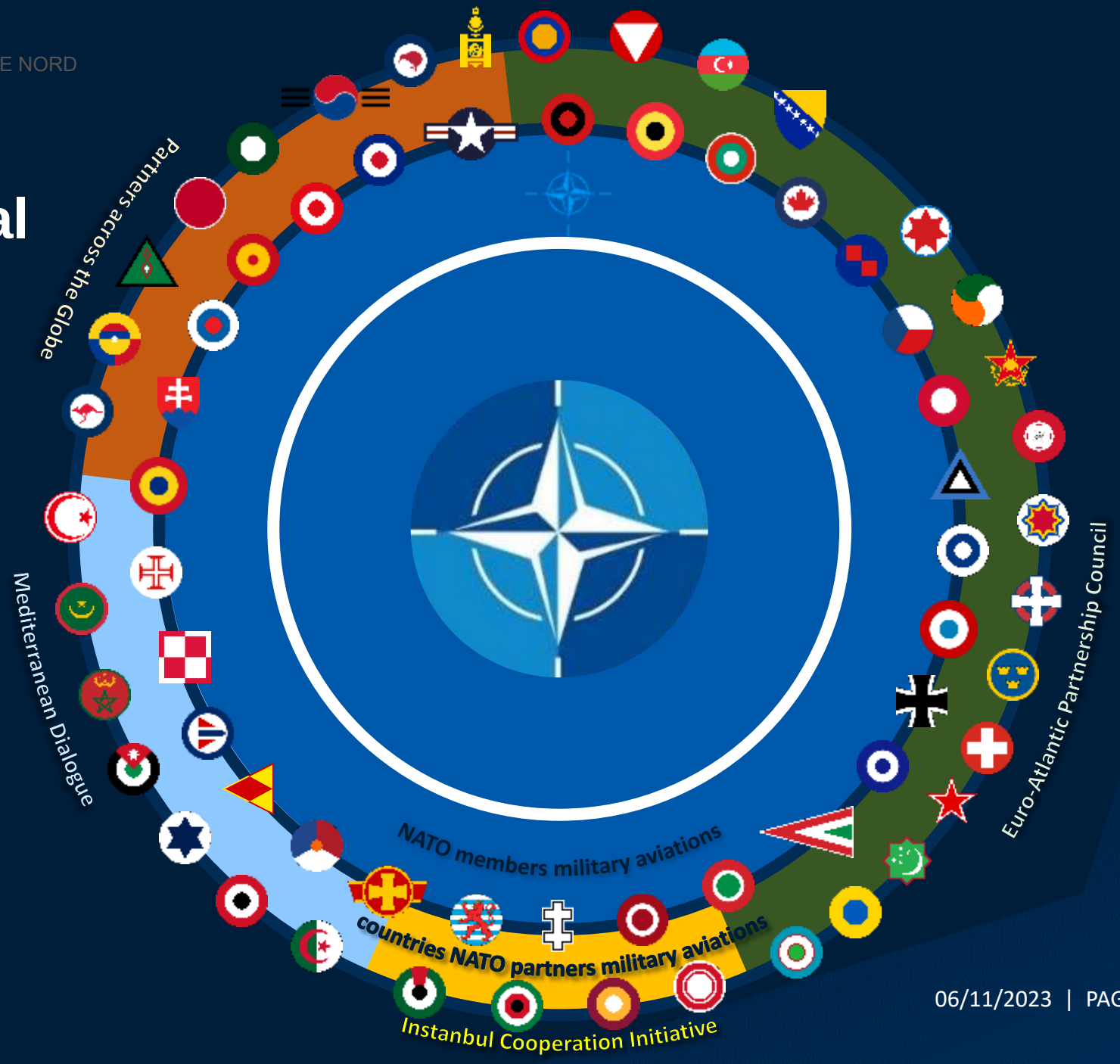
AWAG format.

- 31 Alliance’s members.
- + Partner countries.
- + Partner organisations.

Airworthiness and global networking

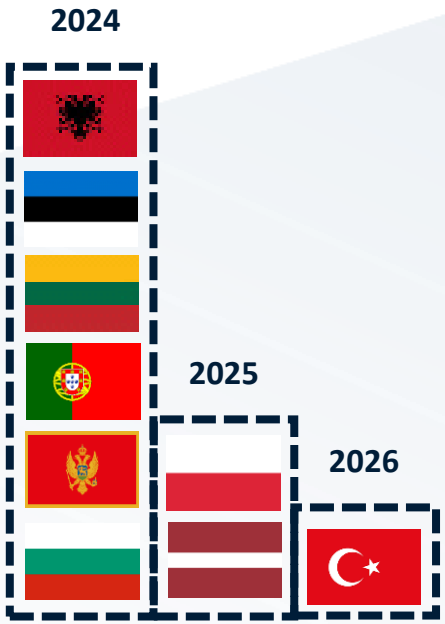
➔ A large potential community of common interest

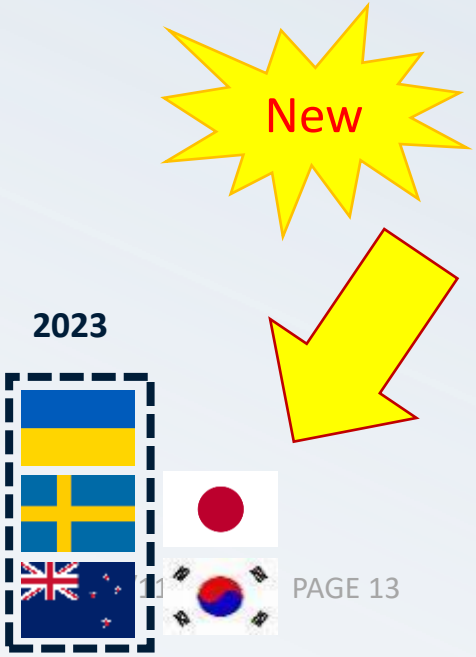
- 31 Alliance's Members
- +/- 40 Partner Nations



NATO recognition update.

- 23 Countries recognized (MAA + CAA)
- 20 members of the Alliance
- ¾ of the burden accomplished.
- **Full NATO Implementation ➔ 2026**



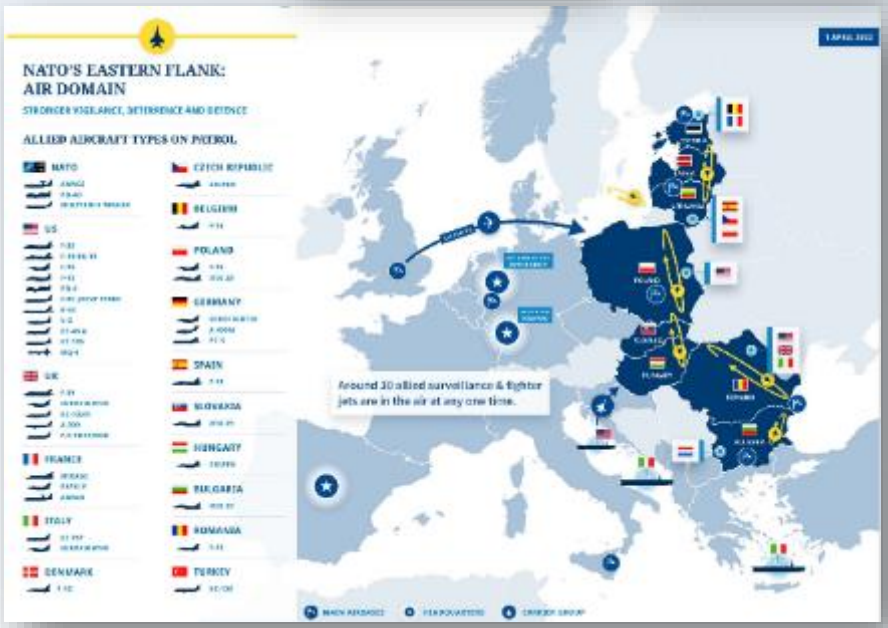


Current topics & new challenges

- ➔Airworthiness in conflict situation.
- ➔Interoperability improvement through airworthiness.
- ➔Contracted air services
- ➔Airworthiness Waiver process
- ➔Sustainable aviation fuel

Why debating on airworthiness in conflict?

- War back in Europe.
- On NATO's eastern flank.
- Preparation of the Alliance to large scale engagement scenarios.
- Crisis management measures.
- Military air component readiness & adaptation to high intensity conflict scenarios.



Why NATO? Added value, role and position:

A common issue.

NATO's liability: Collective defence & deterrence

NATO's strengths:

- Federate efforts.
- Harmonise views.
- Producing standards.
- Enhancing interoperability.

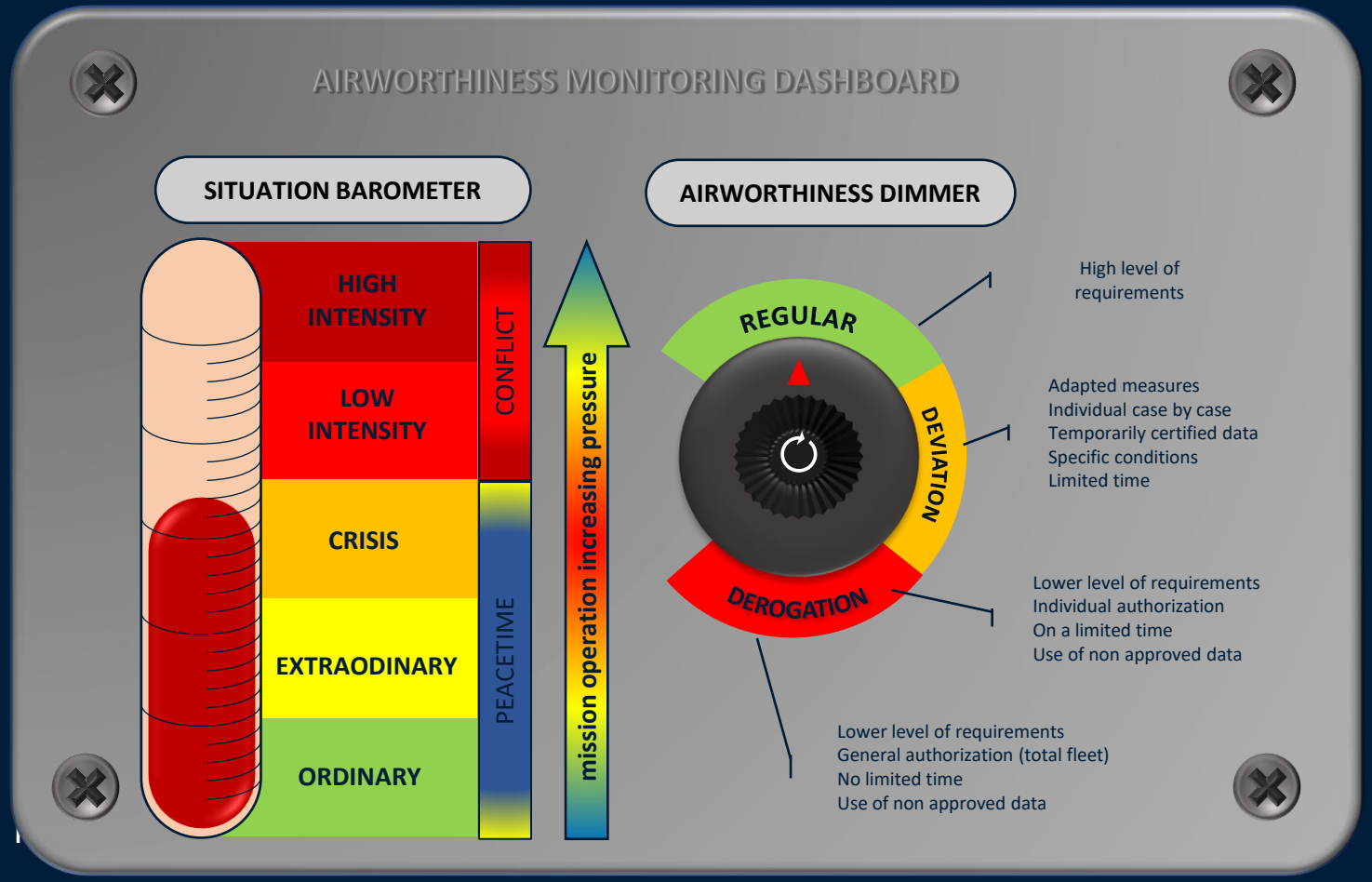
☝ NATO is not an aviation authority

☝ Recall airworthiness is a sovereign matter

Potential airworthiness areas concerned & to explore :

Standardisation.

Airworthiness monitoring / situation by military aviation authorities / command



- Portfolio of indicative measures
- For high military decision levels?
- Operational risk management.
- Way to come back to normal…

Standardisation.

Based on expertise, experience, lessons learned and benchmarking.

- Based on current & passed conflicts.
- Benchmarking with CAAs on crisis management.

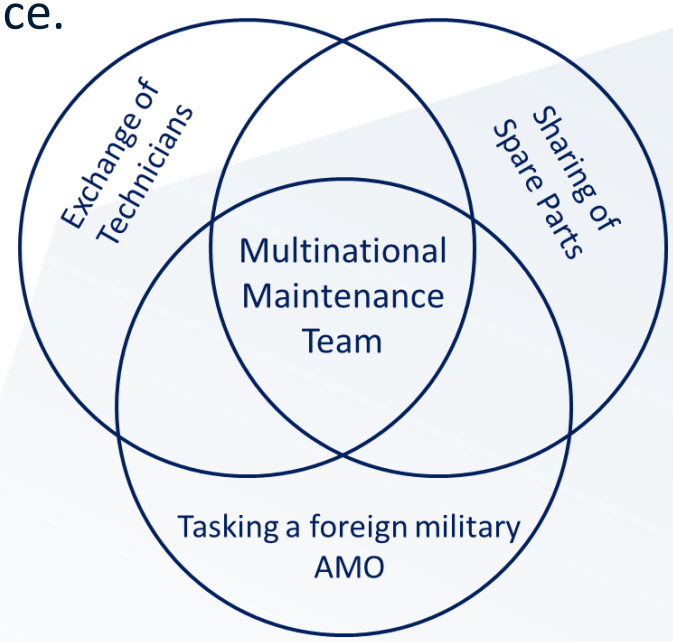







Interoperability

- Airworthiness as an enabler, a game changer.
- Use the full potential of common A/C platforms.
- Use the full potential of AW recognition.
- Use the full potential of AW standardization.
- Logistics = pooling and sharing.
- Enhance technical cooperation = Cross servicing & cross maintenance.



Training and exercises.

- On high intensity scenarios.
- Operational risk management.
- Test of all support chain.
- Including industry.
- Use of current feedback.
- Test cases.
- Exercise on the defined standards & guidance material.

"We train as we fight."

NATO and airworthiness: issues and perspectives.

- Finalization of the NATO's airworthiness policy implementation.
- Consideration of airworthiness issues common to the Alliance and its partners.
- Pursue study on airworthiness in conflict situation.
- Support interoperability focused on cross servicing and cross maintenance

Contact us.

E-MAIL : coperet.stephane@hq.nato.int
PHONE : +32 2/707 8071

E-MAIL : karinas.vasileios@hq.nato.int
PHONE : +32 2 707 8081

E-MAIL : anghelache.raluca@hq.nato.int
PHONE : +32 2 707 5803

DI Portal : https://diweb.hq.nato.int/Pages/default.aspx