“PBN Implementation Stakeholder Readiness – are we ready to go?”

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ATM in NATO

North Atlantic Council

ATM Committee (ATMC)

DI/A&AACap

NATO's interface with civil aviation

ICAO
EUROCONTROL
EC/DG MOVE
SESAR JU
EDA
U.S. FAA
IATA

NATO Military Authorities
Other NATO Committees, Bodies and Agencies

NATO International Staff
International Military Staff
NATO Military Authorities

All matters related to use of airspace & operation of airports

Including:
- Procedures for safe and expeditious air operations;
- Airspace design, management and control;
- Provision of air navigation and airport services during NATO-led operations;
- Military-Military interoperability, standardisation and civil-military coordination;
- Airborne/ground aeronautical communication, navigation and surveillance (CNS);
- Unmanned aircraft systems/Remotely piloted aircraft.
Ability to comply with PBN performance requirements depend on:

- Current on-board navigation equipage (legacy equipment);
- Planning for future military aircraft or on-going modernization efforts;
- Interoperability efforts with mixed navigational capabilities;
- Rationalisation of ground-based NAVAIDs based on national divestiture (removal of redundant ground-based NAVAID DS identified during national PBN modernisation efforts)

which ensure NATO’S ability to conduct its security and defence missions; e.g. air policing
For obvious operational reasons, NATO military platforms are moving toward GPS Precise Position System (GPS-PPS) over the more civil Standard Position System (GPS-SPS).
“Performance Based,” ICAO PBN Manual, Doc 9613, identifies navigation sensors to those mainly used by civil aviation, i.e. GNSS or DME/DME/IRU or DME/DME.

Acceptance of military enablers as alternative means within military, there are many variants and technical constraints, including integration difficulties, lack of cockpit space, co-site interference and architectural mismatches.

As aviation systems become more reliant on GNSS for operations, it has become increasingly apparent that military must also be able to operate in a GNSS compromised environment.
NATO supports ICAO PBN concept which describes performance requirements - for civil aircraft;

NATO supports PBN capabilities - as long as they do not adversely affect security and defence missions;

NATO advocates national development of particular specifications which meet performance level - for military aircraft;

Military aircraft assigned to NATO - many will remain in operation without PBN capabilities;

NATO advocates sufficient ground-based NAVAIDS maintained - to support non-RNAV/ RNP NATO aircraft;

NATO advocates that changes to avionics must be harmonised to avoid additional costs - and to ensure NATO maintains operational capabilities and access to airspace.
The military challenge isn’t merely whether to equip or not, it is more a question of whether the sovereign government that the military represents is able to equip, and if so, how and when; in many cases the military would equip tomorrow if funded, but unless and until each military is funded, we’ll operate within the capabilities that we currently have.

NATO and other national military authorities will be required to re-evaluate the technical and operational impact on implementation of PBN and possibly consider development of new PALS standards, as appropriate.
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