NPF/SIP/2010-WP/24

ICAO Air Navigation Panels/Study Groups – Work Programme –

SAULO DA SILVA
International Civil Aviation Organization

Workshop on the development of National Performance Framework for Air Navigation Systems (Nairobi, 6-10 December 2010)

PANELS/STUDY GROUPS/TASK FORCESS

How the Work Gets Done – 600 Volunteers

Operational Safety Panels

- Aeronautical Communication Panel (ACP)
- Air Traffic Management Requirements and Performance Panel (ATMRPP)
- Navigation Systems Panel (NSP)
- Instrument Flight Procedures Panel (IFPP)
- Operational Data link Panel (OPLINKP)
- Operations Panel (OPSP)
- Separation and Airspace Safety Panel (SASP)
- Aeronautical Surveillance Panel (ASP)
- Aerodromes Panel (AP)

Study Groups & Task Forces

- Aircraft Type Designators Study Group
- Aeronautical Information Service–Aeronautical Information Management Study Group (AIS-AIMSG)
- Aerodrome Meteorological Observation and Forecast Study Group (AMOFSG)
- International Airways Volcano Watch Operations Group (IAVWOPSG)
- Meteorological Warnings Study Group (METWSG)
- PANS Aerodromes Study Group (PASG)
- Performance-based navigation study group (PBNSG)
- Satellite Distribution System Operations Group (SADISOPSG)
- Unmanned Aircraft Systems Study Group (UASSG)
- World Area Forecast System Operations Group (WAFSOPSG)
- Global PBN Task Force (GPBN TF)

PANELS

Aeronautical Communication Panel (ACP)

- Increase efficiency/cost effectiveness of existing data link implementations
- Develop Standards for new communications media in different environments in support of the future communication requirements, as identified by the NextGen/SESAR programmes; i.e. airport surface, en-route, oceanic
- Develop, maintain and defend aeronautical frequency spectrum allocations at ITU WRC-2012

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Aerodromes panel (AP)

- Develop new ICAO Flight Plan in line with the Global ATM Operational Concept including 4D Trajectory Management (4D-TRAD) and the NextGen /SESAR developments for 2025 and beyond.
- Use of the information necessary to provide the optimum service (SDM)
- Optimization of operations through the use of CDM

Aeronautical Communication Panel (ACP)

Air Traffic Management Requirements and Performance Panel (ATMRPP)

Navigation systems panel (NSP)

- SBAS-based CAT 1 operations
- Define ILS critical & sensitive areas (CS) for large aircraft
- Improve GNSS availability & performance
- Reduce conventional NAVAID infrastructure

Instrument flight procedures panel (IFPP)

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- Flight procedures requirements to address PBN fixed wing operations (RF turns, RNP AR etc)
- Flight procedure requirements for SBAS and GBAS
- Flight procedure requirements for helicopter PBN
- Continuous descent approach operations and Continuous climb operations
- Requirements for safety assessment of flight procedures including new collision risk model
- Quality Assurance guidance on the flight procedure development process
- Charting and database requirements for instrument flight procedures

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- Increasingly harmonized data link procedures allowing for seamless operations
- New set of data link messages for ADS-C, DLIC, CPDLC & DFIS that support ATS. Includes D-OTIS, Departure clearance, D-TAXI, Conformance Management/Flight Plan Intent (FLIPINT) and 4D Trajectory Management (4D-TRAD)
- Utilization of SATCOM Voice for routine ATS communications (OCA)

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- Provide guidance for the operational use of electronic flight bags (EFBs)
- RFF criteria for airline operations on selection of alternatives
- Increased efficiency through more flexible operational requirements for RFFS capabilities in the selection of alternate aerodromes
- Relaxation of approach restrictions currently in force for commencement of a final approach in instrument meteorological conditions (commonly known as “Approach Ban”)
- Guidance on all-weather operations
- Introduction of procedures to overlay the conventional route structure with GPS routing

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- Harmonized use & exchange of RVSM monitoring data among RMAs
- 2.5 NM in-trail separation on final up to 20 miles from runway end
- MLAT & ADS-B for 3NM separation minima in use
- More stringent speed controls in oceanic airspace
- Enhanced terminal separation minima for PBN aircraft.
- GNSS (DME 10) separation in oceanic airspace
- Micro offsets (100 meter increments) as a next step of SLOP
- In-trail climb using ADS-B & CPDLC
- Surveillance capability extended to wide area multilateration systems
- Monitoring 5 minute longitudinal separation minima trials

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- MLAT & ADS-B for 3NM separation minima in use
- In-trail climb using ADS-B & CPDLC
- Reduced oceanic separation using ADS-B (airborne surveillance application)
- Merging & Sequencing (an airborne surveillance application)
- Surface sequencing using ADS-B
- Self-separation mixed mode
- Reduction of runway incursions
- Improvements to SSR for the provision of ATS Surveillance Service
- Reduce conventional NAVAID infrastructure
- UAS OPS in non-segregated airspace & aeronautical operations

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Aerodromes panel (AP) →

- Reduction of runway excursion through harmonized provisions for assessing and reporting of runway surface conditions, including friction measurement.
- Strengthening the existing provisions for certification of aerodromes
- Updating provisions on aerodrome rescue and firefighting
- Reduction of runway incursions
- Reduce accidents/damage to aircraft due to bird strikes
- Effective implementation of LED technology in visual aids for navigation
- Increase operational safety of heliports
- Reduce CFI by standardizing markings & lighting of obstacles outside obstacle limitation surfaces

STUDY GROUPS AND TASK FORCES

Aircraft Type Designators Study Group

Aeronautical Information Service–Aeronautical Information Management Study Group (AIS-AIMSG)

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International Airways Volcano Watch Operations Group (IAVWOPSG)

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Performance-based navigation study group (PBNSG)

Satellite Distribution System Operations Group (SADISOPSG)

Unmanned Aircraft Systems Study Group (UASSG)

World Area Forecast System Operations Group (WAFSOPSG)

Wake Turbulence Study Group (WTSG)

PANS-Aerodromes Study Group (PASG)

Global PBN Task Force (GPBN TF)

- maintain the currency of aircraft type designators published in Doc 8643
- Maintain a database of aircraft type designators
- Review the criteria on allocations of designators for variants of an aircraft type, based on configuration, performance or design differences

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- Transition to AIM to support global ATM (including NextGen/SESAR) by increasing the cost effectiveness, timeliness and quality of aeronautical information/data, including MET

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- Optimum use of available airport capacity by enhanced accuracy and timeliness of MET information (AMOFSG, METWSG) (To provide data in support of NextGen/SESAR)

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- Optimization of flight trajectory by avoiding volcanic ash and hazardous MET conditions whilst preventing unnecessary closure of airspace (To provide data in support of NextGen/SESAR)

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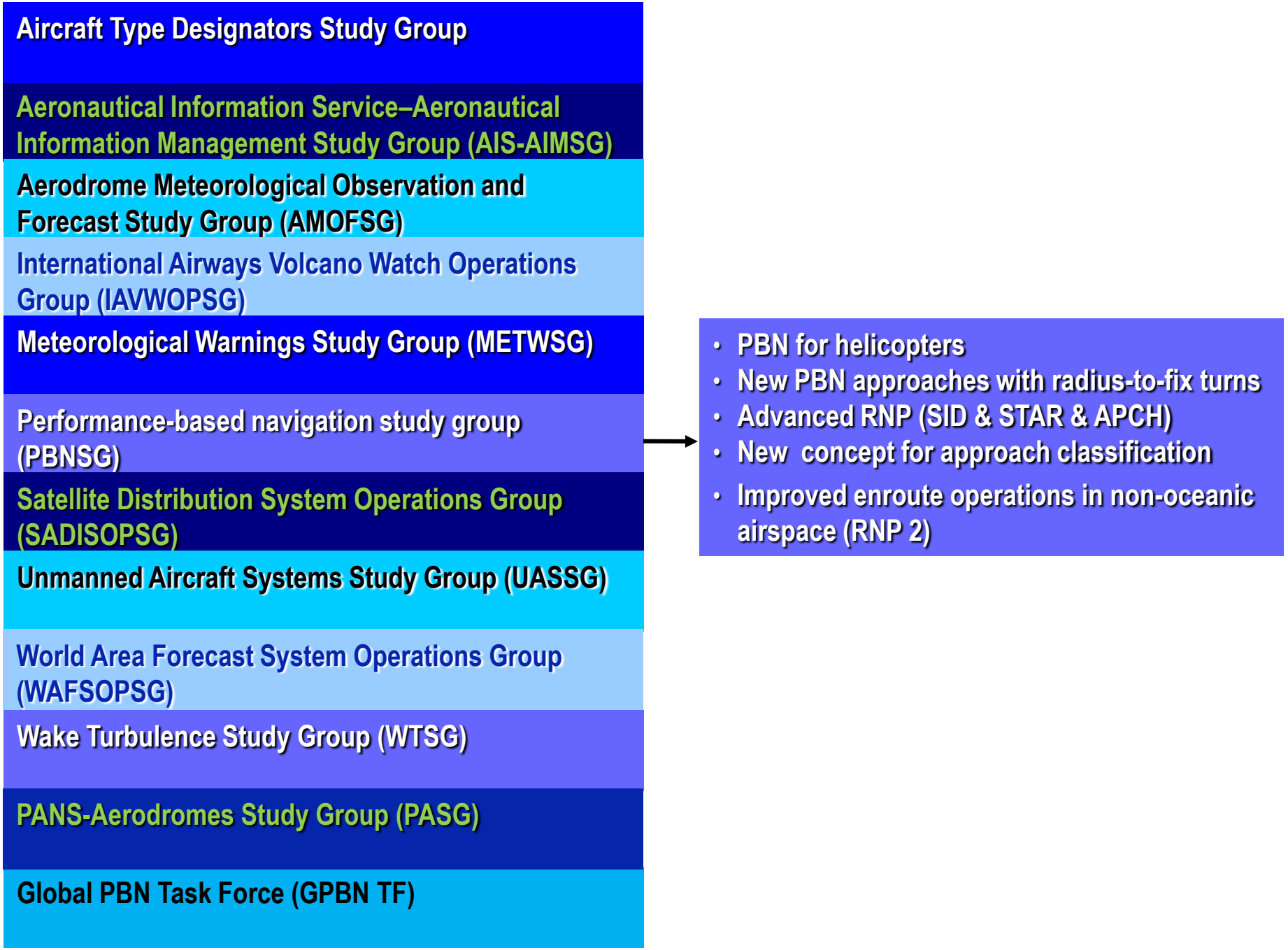
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Global PBN Task Force (GPBN TF)
• PBN for helicopters
• New PBN approaches with radius-to-fix turns
• Advanced RNP (SID & STAR & APCH)
• New concept for approach classification
• Improved enroute operations in non-oceanic airspace (RNP 2)

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- UAS OPS in non-segregated airspace & at aerodromes

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- New provisions for wake turbulence separation minima and aircraft categories
- Guidance material to support PANS-ATM provisions
- Assessment of future work in wake turbulence related matters

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- Improved aerodrome safety through the development of a a PANS-Aerodromes document for the management of aerodrome operational issues.

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- Advanced RNP (SID & STAR & APCH)
- New concept for approach classification
- Improved enroute operations in non-oceanic airspace (RNP)2)


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Thank you