



ICAO

# INTERNATIONAL CIVIL AVIATION ORGANIZATION

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**APIRG endorsed ASBU Elements**



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## **Decision of the APIRG/25 Meeting adopting the ASBU éléments applicable to the Region in AOP, ATM, SAR, CNS, AIM and MET areas**

### *APIRG/25 Decision 25/10 Adoption of the ASBU Elements applicable to the region*

*That, to align the Regional Air Navigation Plan to the Sixth Edition of the GANP, the ASBU elements, as identified in the Appendix 3D to the APIRG/25 Report, are endorsed.*

# ASBU elements - AOP

ASBU Modules	ASBU Elements
<b>ACDM-B0</b>	<b>ACDM-B0/1</b> Airport CDM Information Sharing
	<b>ACDM-B0/2</b> integration with ATM Network function

# ASBU elements - ATM & SAR

ASBU Modules	ASBU Elements
APTA-B0	APTA-B0/1 PBN Approaches
	APTA-B0/2 PBN SID and STAR procedures
	APTA-B0/4 CDO (Basic)
	APTA-B0/5 CCO (Basic)
	APTA-B0/8 Performance based aerodrome operating minima – Basic aircraft
FRTO-B0	FRTO-B0/1 Direct routing (DCT)
	FRTO-B0/2 Airspace planning and Flexible Use of Airspace (FUA)
	FRTO-B0/3 Pre-validated and coordinated ATS routes to support flight and flow
	FRTO-B0/4 Basic conflict detection and conformance monitoring
NOPS-B0	NOPS-B0/1 Initial integration of collaborative airspace management with air traffic flow management
	NOPS-B0/2 Collaborative Network Flight Updates
	NOPS-B0/3 Network Operation Planning basic features
	NOPS-B0/4 Initial Airport/ATFM slots and A-CDM Network Interface
SNET	SNET-B0/1 Short Term Conflict Alert (STCA)
	SNET-B0/2 Minimum Safe Altitude Warning (MSAW)
	SNET-B0/3 Area Proximity Warning (APW)
	SNET-B0/4 Approach Path Monitoring (APM)



ASBU Modules	ASBU Elements
SURF-B0	SURF-B0/1 Basic ATCO tools to manage traffic during ground operations
TBO-B0	TBO-B0/1 Introduction of time-based management within a flow centric approach
ACAS-B1	ACAS-B1/1 ACAS Improvements
CSEP-B1	CSEP-B1/1 Basic airborne situational awareness during flight operations (AIRB)
FRTO-B1	FRTO-B1/1 Free Route Airspace (FRA)
	FRTO-B1/2 Required Navigation Performance (RNP) routes
	FRTO-B1/3 Advanced Flexible Use of Airspace (FUA) and management of real time airspace data
	FRTO-B1/5 Enhanced Conflict Detection Tools and Conformance Monitoring
	NOPS-B1
SNET-B1	SNET-B1/1 Enhanced STCA with aircraft parameters

## SAR

ASBU Modules	ASBU Elements
GADS-B1	GADS-B1/1 Aircraft Tracking
	GADS-B1/2 Contact directory service

# ASBU elements - CNS<sup>(1/2)</sup>

ASBU Modules	ASBU Elements
<b>COMI-B0</b>	<b>COMI-B0/1</b> Aircraft Communication Addressing Reporting System (ACARS)
	<b>COMI-B0/2</b> Aeronautical Telecommunication Network/Open System Interconnection (ATN/OSI)
	<b>COMI-B0/3</b> VHF Data Link (VDL) Mode O/A
	<b>COMI-B0/4</b> VHF Data Link (VDL) Mode 2 Basic
	<b>COMI-B0/5</b> Satellite Communication (SATCOM) Class C Data
	<b>COMI-B0/6</b> High Frequency Data Link (HFDL)
	<b>COMI-B0/7</b> ATS Message Handling System (AMHS)
<b>COMI-B1</b>	<b>COMI-B1/1</b> -Ground-Ground Aeronautical Telecommunication Network/Internet Protocol suite (ATN/IPS)
	<b>COMI-B1/2</b> VHF Data Link (VDL) Mode 2 Multi- Frequency
	<b>COMI-B1/3</b> SATCOM Class B Voice and Data
	<b>COMI-B1/4</b> Aeronautical Mobile Airport Communication System (AeroMACS)
<b>COMS-B0</b>	<b>COMS-B0/1</b> CPDLC (FANS 1/A & ATN B1) for domestic and procedural airspace
	<b>COMS-B0/2</b> ADS-C (FANS 1/A) for procedural airspace

# ASBU elements - CNS (2/2)

ASBU Modules	ASBU Elements
<b>COMS-B1</b>	<b>COMS-B1/1</b> PBCS approved CPDLC (FANS 1/A +) for domestic and procedural airspace
	<b>COMS-B1/2</b> PBCS-approved ADS-C (FANS 1/A +) for procedural airspace
	<b>COMS-B1/3</b> SATVOICE (incl. routine communication) for procedural airspace
<b>NAVS-B0</b>	<b>NAVS-B0/1</b> Ground Based Augmentation System (GBAS)
	<b>NAVS-B0/2</b> Satellite Based Augmentation System (SBAS)
	<b>NAVS-B0/3</b> Aircraft Based Augmentation system (ABAS)
	<b>NAVS-B0/4</b> Navigation Minimal Operating Networks (Nav. MON)
<b>NAVS-B1</b>	<b>NAVS-B1/1</b> Extended GBAS
<b>ASUR-B0</b>	<b>ASUR-B0/1</b> Automatic Dependent Surveillance - Broadcast (ADS-B)
	<b>ASUR-B0/2</b> Multi-lateration cooperative surveillance systems (MLAT)
	<b>ASUR-B0/3</b> Cooperative Surveillance Radar Downlink of aircraft Parameters (SSR-DAPS)
<b>ASUR-B1</b>	<b>ASUR-B1/1</b> Reception of aircraft ADS-B signals from space (SB ADS-B)
<b>ACAS-B1</b>	<b>ACAS-B1/1</b> ACAS Improvement
<b>FICE-B0</b>	<b>FICE-B0/1</b> Automated basic facility data exchange (AIDC)

# ASBU elements - AIM

ASBU modules	ASBU elements
<b>DAIM-B1</b>	<b>DAIM-B1/1</b> Provision of quality-assured aeronautical data and information
	<b>DAIM-B1/2</b> Provision of digital Aeronautical Information Publication (AIP) data sets
	<b>DAIM-B1/3</b> Provision of digital terrain data sets
	<b>DAIM-B1/4</b> Provision of digital obstacle data sets
	<b>DAIM-B1/5</b> Provision of digital aerodrome mapping data sets
	<b>DAIM-B1/7</b> NOTAM improvements

# ASBU elements applicable to the Region in **MET** area

ASBU Modules	ASBU Elements
<b>AMET-B0</b>	<b>AMET-B0/1</b> Meteorological observations products
	<b>AMET-B0/2</b> Meteorological forecast and warning products
	<b>AMET-B0/3</b> Climatological and historical meteorological products
	<b>AMET-B0/4</b> Dissemination of meteorological products
<b>AMET-B1</b>	<b>AMET-B1/1</b> Meteorological observations information
	<b>AMET-B1/2</b> Meteorological forecast and warning information
	<b>AMET-B1/3</b> Climatological and historical meteorological information
	<b>AMET-B1/4</b> Dissemination of meteorological information





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Thank You!