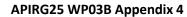


IIMSG5 WP3.1A3 – Appendix 1 - Identified ASBU elements applicable to AFI region in MET Field

ASBU Modules	ASBU Elements	Purpose of elements	Maturity level	Applicable (Yes or No)	Rational of applicability	Enablers	Stakeholders			
AMET-B0 Global, regional, and local meteorological information to support flexible airspace management, improved situational awareness,	AMET-B0/1 Meteorological observations products	Provides Meteorological observations in support of flexible airspace management, improved situational awareness, collaborative decision- making and	Ready for implementation	Yes	A3 Chap. 4: §4.1.5 requires that at aerodromes with runways intended for Category II and III instrument approach and landing operations, automated equipment for	National framework amendment for the provision of meteorological observations products	• CAA			
collaborative decision- making and dynamically optimized flight trajectory planning.	collaborative decision- making and dynamically optimized flight dynamically optimized flight trajectory planning	flight trajectory						measuring or assessing, as appropriate, and for monitoring and remote indicating of surface wind, visibility, runway visual range, height of	Procedures for the provision of meteorological observations products	ANSPMET Service Provider
					cloud base, air and dew- point temperatures and atmospheric pressure shall be installed to support approach and	Transmission of meteorological observations data from aircraft	Aircraft Manufacturer			
			•	landing and take-off operations. • Annex 3 Appx. 6: §6.2.5 requires that the wind shear alerts shall be disseminated from automated, ground-based, wind shear	Automated systems and infrastructure to support the provision of meteorological observations products	Airport OperatorANPSMET Service Provider				





ASBU Modules	ASBU Elements	Purpose of elements	Maturity level	Applicable (Yes or No)	Rational of applicability	Enablers	Stakeholders
					remote-sensing or detection equipment in accordance with local arrangements to those concerned.	Training requirements for the provision of meteorological observations products	 CAA ANSP MET Service Provider Airport Operator
	AMET-B0/2 Meteorological forecast and warning products	Provides Meteorological forecasts, advisories and warnings in support of flexible airspace management, improved situational awareness, collaborative decision-	Ready for implementation	Yes	• Annex Chap. 3: §3.2 & Appendix 2: §1.2 require for the provision of the new gridded WAFS information (e.g. Wind, Temperature, Icing, Turbulence, CB clouds.	• National framework amendment for the provision of meteorological forecast products and warnings	• CAA
		making and dynamically optimized flight trajectory planning.				Procedures for the provision of Meteorological forecast products and warnings	ANSP MET Service Provider
						Training requirements for the provision of meteorological forecast products and warnings	 CAA ANSP MET Service Provider Airport Operator



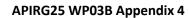


ASBU Modules	ASBU Elements	Purpose of elements	Maturity level	Applicable (Yes or No)	Rational of applicability	Enablers	Stakeholders
						Systems and infrastructure to support the provision of meteorological forecast and warning products	MET Service Provider
	AMET-B0/3 Climatological and historical meteorological products	Climatological products in support of the design and planning of infrastructure, flight routes and airspace management. Historical meteorological observations, forecasts, advisories and warnings	Ready for implementation	Yes	Annex 3 Chap 8: §8.1.1 requiring for the provision of Aerodrome climatological information and historical meteorological products in support of the design and planning	National framework amendment for the provision of climatological meteorological information products	• CAA
		in support of incident and accident investigations			of infrastructure, flight routes and airspace management.	Procedures for the provision of climatological meteorological information products	ANSP MET Service Provider
						Training requirements for the provision of climatological meteorological information products	 CAA ANSP MET Service Provider Airport Operator



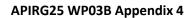


ASBU Modules	ASBU Elements	Purpose of elements	Maturity level	Applicable (Yes or No)	Rational of applicability	Enablers	Stakeholders
						Systems and infrastructure to support the provision of climatological meteorological products	MET Service Provider
	AMET-B0/4 Dissemination of meteorological products	meteorological products in support of flexible airspace management, improved situational awareness,	National framework amendment for meteorological information exchange	• CAA			
		making and dynamically optimized flight trajectory planning			Annex 3 provisions (A3 App. 3: §2.1.3; App. 6: §1.1.6 & §1.2)	 Procedures for meteorological information exchange 	ANSPMET Service Provider
					Communications infrastructure for meteorological information exchange	ANSP MET Service Provider	
						Training for meteorological information exchange	ANSP MET Service Provider





ASBU Modules	ASBU Elements	Purpose of elements	Maturity level	Applicable (Yes or No)	Rational of applicability	Enablers	Stakeholders
						ICAO Meteorological Information Exchange Model (IWXXM) V1-V2	ANSPMET Service Provider
AMET-B1 Meteorological information supporting automated decision process or aids, involving meteorological	Meteorological observations information supporting utomated decision rocess or aids, nvolving neteorological information, neteorological infor	Meteorological observations information in support of automated decision processes or aids and performance based	Standardization	Yes	• IWXXM format became a Standard for dissemination on 5 November 2020 with the applicability of Amendment 79 to Annex 3 for the	National framework amendment for the provision of meteorological observations information	• CAA
information, meteorological information translation, ATM impact conversion and ATM decision support				following TAC products: SIGMET, AIRMET, METAR, SPECI, TREND, TAF, VAA, TCA and SWXA. • Significant weather	Procedures for the provision of meteorological observations information	ANSP MET Service Provider	
				(SIGWX) forecasts, is recommended for dissemination in IWXXM as of 4 November 2021	Transmission of meteorological observations information from aircraft	Aircraft Manufacturer	





ASBU Modules	ASBU Elements	Purpose of elements	Maturity level	Applicable (Yes or No)	Rational of applicability	Enablers	Stakeholders
					• Furthermore, the Conclusion 23/29 of APRG/23 Established a Regional Space Weather Project to assist States with the implementation of Space Weather requirements as per the provisions of Annex 3 to	• Automated systems and infrastructure to support the provision of meteorological observations information	Airport OperatorANSPMET Service Provider
					Chicago Convention.	Training requirements for meteorological observations information	 CAA ANSP MET Service Provider Airport Operator
	AMET-B1/2 Meteorological forecast and warning information	Meteorological forecast and warning information for automated support for decision processes or aids and performance based requirements, involving	Standardization	Yes	The above is applied	National framework amendment for the provision of meteorological forecast and warnings information	• CAA



ASBU Modules	ASBU Elements	Purpose of elements	Maturity level	Applicable (Yes or No)	Rational of applicability	Enablers	Stakeholders
		meteorological information, meteorological information translation, ATM impact conversion and ATM decision processes				Procedures for the provision of meteorological forecast and warnings information	ANSPMET Service Provider
						Training requirements for Meteorological forecast and warning information	CAAANSPMET Service ProviderAirport Operator
						Systems and infrastructure to support the provision of meteorological forecast and warning information	MET Service Provider
	AMET-B1/3 Climatological and historical meteorological information	Climatological information in support of the design and planning of infrastructure, flight routes and airspace management. Historical	Standardization	Yes	Enhanced climatological data/Information with their associated characteristics such as metadata; required to support the design and planning of	National framework amendment for the provision of climatological meteorological information	• CAA





ASBU Modules	ASBU Elements	Purpose of elements	Maturity level	Applicable (Yes or No)	Rational of applicability	Enablers	Stakeholders
		meteorological observations, forecasts, advisories and warnings in support of incident and accident investigations.			infrastructure, flight routes and airspace management.	Procedures for the provision of climatological meteorological information	ANSP MET Service Provider
						Training requirements for climatological meteorological information	 CAA ANSP MET Service Provider Airport Operator
						Systems and infrastructure to support the provision of climatological meteorological information	MET Service Provider
	AMET-B1/4 Dissemination of meteorological information	Dissemination of meteorological information in support of automated decision process or aids, involving	Standardization	Yes	• As of 5 November 2020, States were required by Annex 3 to the Convention to implement IWXXM format for the	National framework amendment for the dissemination of meteorological information	• CAA





ASBU Modules	ASBU Elements	Purpose of elements	Maturity level	Applicable (Yes or No)	Rational of applicability	Enablers	Stakeholders
		meteorological information, meteorological information translation, ATM impact			 international exchange of MET information. States, ROCs and RODBs in a position to do so will begin to 	• Procedures for the dissemination of meteorological information	ANSP MET Service Provider
		conversion and ATM decision support.		•	disseminate gridded and imagery products throughout Block 1. • RODBs to implement TAC Request/Reply and	• Communication infrastructure for meteorological information exchange	ANSP MET Service Provider
					IWXXM Request/Reply Procedures.	Training for the dissemination of meteorological information	 CAA ANSP MET Service Provider Airport Operator
						• ICAO Meteorological Information Exchange Model (IWXXM) V3	ANSPMET Service Provider