

Antigua/Barbuda ASBU Air Navigation Reporting Form (ANRF)					
PIA	1	Block - Module	B0 - ACDM	Date	19/10/ 2016
Module Description: Implements collaborative applications that will allow the sharing of surface operations data among the different stakeholders on the airport. This will improve surface traffic management reducing delays on movement and manoeuvring areas and enhance safety, efficiency and situational awareness.					
Element Implementation Status					
1	Element Description: Airport CDM procedures			Implemented	Status/Implemented
	Status Details In process				
2	Element Description: Airport CDM tools			Date Planned/Implemented	Status: N/A
	Status Details Not needed				
3	Element Description: Collaborative departure queue management			Date Planned/Implemented	Status: N/A
	Status Details				
Achieved Benefits					
<i>Access and Equity</i>					
<i>Capacity</i> ✓					
<i>Efficiency</i> ✓					
<i>Environment</i>					
<i>Safety</i> ✓					
Implementation Challenges					
<i>Ground system Implementation</i> ✓					
<i>Avionics Implementation</i>					
<i>Procedures Availability</i>					
<i>Operational Approvals</i>					
Notes					

Antigua and Barbuda ASBU Air Navigation Reporting Form (ANRF)					
PIA	1	Block - Module	B0 - APTA	Date	19/10/ 2016
Module Description: The use of Performance-based Navigation (PBN) and ground-based augmentation system (GBAS) landing system (GLS) procedures to enhance the reliability and predictability of approaches to runways, thus increasing safety, accessibility and efficiency. This is possible through the application of basic global navigation satellite system (GNSS), Baro-vertical navigation (VNAV), satellite-based augmentation system (SBAS) and GLS. The flexibility inherent in PBN approach design can be exploited to increase runway capacity.					
Element Implementation Status					
1	Element Description: PBN Approach Procedures with vertical guidance (LPV, LNAV/VNAV minima, using SBAS and Baro VNAV)				Status N/A
	Status Details				
2	Element Description: PBN Approach Procedures without vertical guidance (LP, LNAV minima; using SBAS)			RWY07/implemented RWy25/partially	Status/Implemented
	Status Details				
3	Element Description: GBAS Landing System (GLS) Approach procedures			Date Planned/Implemented	Status/NA
	Status Details				
Achieved Benefits					
<i>Access</i> ✓					
<i>Capacity</i>					
<i>Efficiency</i> ✓					
<i>Environment</i>					
<i>Safety</i> ✓					
Implementation Challenges					
<i>Ground system Implementation</i>					
<i>Avionics Implementation</i> ✓					
<i>Procedures Availability</i> ✓					
<i>Operational Approvals</i>					
Notes: procedures are completed awaiting approval					

Antigua/Barbuda ASBU Air Navigation Reporting Form (ANRF)					
PIA	2	Block - Module	B0 - AMET	Date	19/10/ 2016
<p>Module Description: Global, regional and local meteorological information:</p> <p>a) forecasts provided by world area forecast centres (WAFc), volcanic ash advisory centres (VAAC) and tropical cyclone advisory centres (TCAC);</p> <p>b) aerodrome warnings to give concise information of meteorological conditions that could adversely affect all aircraft at an aerodrome including wind shear; and</p> <p>c) SIGMETs to provide information on occurrence or expected occurrence of specific en-route weather phenomena which may affect the safety of aircraft operations and other operational meteorological (OPMET) information, including METAR/SPECI and TAF, to provide routine and special observations and forecasts of meteorological conditions occurring or expected to occur at the aerodrome.</p> <p>This information supports flexible airspace management, improved situational awareness and collaborative decision making, and dynamically optimized flight trajectory planning.</p> <p>This module includes elements which should be viewed as a subset of all available meteorological information that can be used to support enhanced operational efficiency and safety.</p>					
Element Implementation Status					
1	Element Description: WAFS			Date Planned/Implemented	Status/Implemented
	Status Details				
2	Element Description: Volcanic Ash IAVW			Date Planned/Implemented	Status/Implemented
	Status Details				
3	Element Description: TCAC forecasts			Date Planned/Implemented	Status/Implemented
	Status Details				
4	Element Description: Aerodrome warnings			30/06/17-In progress	Status/Developing
	Status Details				
5	Element Description: Wind shear warnings and alerts			30/06/17-In progress ed	Status/Developing
	Status Details				
6	Element Description: SIGMET			NA	Status/NA
	Status Details				
7	Element Description: Other OPMET information (METAR, SPECI and/or TAF)			Implemented	Status/Implemented
	Status Details				
8	Element Description: QMS for MET			Implemented	Status/Implemented

	Status Details
Achieved Benefits	
<i>Access and Equity</i>	
<i>Capacity</i>	
<i>Efficiency</i> ✓	
<i>Environment</i>	
<i>Safety</i> ✓	
Implementation Challenges	
<i>Ground system Implementation</i> ✓	
<i>Avionics Implementation</i>	
<i>Procedures Availability</i>	
<i>Operational Approvals</i>	
Notes Government has approved the purchase of a new AWOS system for met	

Antigua and Barbuda ASBU Air Navigation Reporting Form (ANRF)					
PIA	2	Block - Module	B0 - DATM	Date	19/10/, 2016
Module Description: The initial introduction of digital processing and management of information through, aeronautical information service (AIS)/aeronautical information management (AIM) implementation, use of aeronautical exchange model (AIXM), migration to electronic aeronautical information publication (AIP) and better quality and availability of data.					
Element Implementation Status					
1	Element Description: Aeronautical Information Exchange Model (AIXM)		30/09/2018/Need	Status/Planning	
	Status Details				
2	Element Description: eAIP		Implemented	Status/Implemented	
	Status Details				
3	Element Description: Digital NOTAM		30/03/2017	Status/Developing	
	Status Details will be provided by Trinidad and Tobago should be ready by first quarter of next year				
4	Element Description: eTOD		30/09/2018	Status/Planning	
	Status Details				
5	Element Description: (Identified by NACC) WGS-84		Implemented	Status/Implemented	
	Status Details was implemented at the end of 2014				
6	Element Description: QMS for AIM		29/12/2017	Status/Partially implemented	
	Status Details awaiting signed LOA with Trinidad and Tobago				
Achieved Benefits					
Access					
Capacity					
Efficiency ✓					
Environment					
Safety ✓					
Implementation Challenges					
Ground system Implementation ✓					
Avionics Implementation					

<i>Procedures Availability</i>
<i>Operational Approvals</i>
Notes All are internal changes

Antigua and Barbuda ASBU Air Navigation Reporting Form (ANRF)				
PIA	3	Block - Module	B0 - ACAS	Date 19/10/2016
Module Description: Provides short-term improvements to existing airborne collision avoidance systems (ACAS) to reduce nuisance alerts while maintaining existing levels of safety. This will reduce trajectory deviations and increase safety in cases where there is a breakdown of separation.				
Element Implementation Status				
1	Element Description: ACAS II (TCAS version 7.1)		No available date/Need	Status/ Development
	Status Details Flight safety is the responsibility of ECCAA and will be implemented			
2	Element Description: Auto Pilot/Flight Director (AP/FD) TCAS		Date Planned/	Status/NA to ANSP
	Status Details			
3	Element Description: TCAS Alert Prevention (TCAP)		Date Planned/	Status/NA to ANSP
	Status Details			
Achieved Benefits				
<i>Access and Equity</i>				
<i>Capacity</i>				
<i>Efficiency</i> ✓				
<i>Environment</i>				
<i>Safety</i> ✓				
Implementation Challenges				
<i>Ground system Implementation</i>				
<i>Avionics Implementation</i> ✓				
<i>Procedures Availability</i>				
<i>Operational Approvals</i> ✓				
Notes				

Antigua and Barbuda ASBU Air Navigation Reporting Form (ANRF)				
PIA	3	Block - Module	B0 - ASUR	Date 19/10/2016
Module Description: Provides initial capability for lower cost ground surveillance supported by new technologies such as ADS-B OUT and wide area multilateration (MLAT) systems. This capability will be expressed in various ATM services, e.g. traffic information, search and rescue and separation provision.				
Element Implementation Status				
1	Element Description: ADS-B		30/12/2018-Need	Status/Planning
	Status Details			
2	Element Description: MLAT		NA	Status/NA
	Status Details			
Achieved Benefits				
<i>Access and Equity</i>				
<i>Capacity</i>				
<i>Efficiency</i>				
<i>Environment</i>				
<i>Safety</i> ✓				
Implementation Challenges				
<i>Ground system Implementation</i> ✓				
<i>Avionics Implementation</i> ✓				
<i>Procedures Availability</i>				
<i>Operational Approvals</i>				
Notes				

Antigua and Barbuda ASBU Air Navigation Reporting Form (ANRF)			
PIA	3	Block - Module	B0 - FRTO
		Date	19/10/ 2016
Module Description: Allow the use of airspace which would otherwise be segregated (i.e. Special Use Airspace) along with flexible routing adjusted for specific traffic patterns. This will allow greater routing possibilities, reducing potential congestion on trunk routes and busy crossing points, resulting in reduced flight lengths and fuel burn.			
Element Implementation Status			
1	Element Description: CDM incorporated into airspace planning	30/03/2017/Need	Status/Planning
	Status Details Will be part of the Eastern Caribbean ATFM-CDM		
2	Element Description: Flexible Use of Airspace (FUA)	Not Applicable	Status/NA
	Status Details		
3	Element Description: Flexible route systems	Not Applicable	Status/NA
	Status Details		
4	Element Description: CPDLC used to request and receive re-route clearances	Not Applicable	Status/NA
	Status Details		
Achieved Benefits			
<i>Access and Equity</i>			
<i>Capacity</i> ✓			
<i>Efficiency</i> ✓			
<i>Environment</i>			
<i>Safety</i> ✓			
Implementation Challenges			
<i>Ground system Implementation</i> ✓			
<i>Avionics Implementation</i>			
<i>Procedures Availability</i> ✓			
<i>Operational Approvals</i>			
Notes			

Antigua and Barbuda ASBU Air Navigation Reporting Form (ANRF)					
PIA	3	Block - Module	B0 - NOPS	Date	19/10/2016
Module Description: Air traffic flow management (ATFM) is used to manage the flow of traffic in a way that minimizes delays and maximizes the use of the entire airspace. ATFM can regulate traffic flows involving departure slots, smooth flows and manage rates of entry into airspace along traffic axes, manage arrival time at waypoints or flight information region (FIR)/sector boundaries and re-route traffic to avoid saturated areas. ATFM may also be used to address system disruptions including a crisis caused by human or natural phenomena.					
Element Implementation Status					
1	Element Description: ATFM		30/06/2016/In Progress	Status/Developing	
	Status Details				
Achieved Benefits					
<i>Access and Equity</i>					
<i>Capacity ✓</i>					
<i>Efficiency ✓</i>					
<i>Environment</i>					
<i>Safety ✓</i>					
Implementation Challenges					
<i>Ground system Implementation ✓</i>					
<i>Avionics Implementation</i>					
<i>Procedures Availability ✓</i>					
<i>Operational Approvals</i>					
Notes					

Antigua and Barbuda ASBU Air Navigation Reporting Form (ANRF)			
PIA	3	Block - Module	B0 - SNET
Date	19/10/ 2016		
Module Description: Monitors the operational environment during airborne phases of flight to provide timely alerts on the ground of an increased risk to flight safety. In this case, short-term conflict alert, area proximity warnings and minimum safe altitude warnings are proposed. Ground-based safety nets make an essential contribution to safety and remain required as long as the operational concept remains human centred.			
Element Implementation Status			
1	Element Description: Short Term Conflict Alert (STCA)	Not Applicable	Status/NA
	Status Details		
2	Element Description: Area Proximity Warning (APW)	Not Applicable	Status/NA
	Status Details		
3	Element Description: Minimum Safe Altitude Warning (MSAW)	Not Applicable	Status/NA
	Status Details		
4	Element Description: Medium Term Conflict Alert (MTCA)	Not Applicable	Status/NA
	Status Details		
Achieved Benefits			
<i>Access and Equity</i>			
<i>Capacity</i>			
<i>Efficiency</i>			
<i>Environment</i>			
<i>Safety</i>			
Implementation Challenges			
<i>Ground system Implementation</i>			
<i>Avionics Implementation</i>			
<i>Procedures Availability</i>			
<i>Operational Approvals</i>			
Notes			

Antigua and Barbuda ASBU Air Navigation Reporting Form (ANRF)					
PIA	4	Block - Module	B0 - CCO	Date	19/10/2016
Module Description: Implements continuous climb operations (CCO) in conjunction with Performance-based Navigation (PBN) to provide opportunities to optimize throughput, improve flexibility, enable fuel-efficient climb profiles, and increase capacity at congested terminal areas.					
Element Implementation Status					
1	Element Description: Procedure changes to facilitate CCO		30/12/2017/In Progress	Status/Developing	
	Status Details				
2	Element Description: Route changes to facilitate CCO		30/12/2017/In Progress	Status/Developing	
	Status Details				
3	Element Description: PBN SIDs		30/12/2017/In Progress	Status/Developing	
	Status Details				
Achieved Benefits					
<i>Access and Equity</i>					
<i>Capacity</i>					
<i>Efficiency ✓</i>					
<i>Environment</i>					
<i>Safety ✓</i>					
Implementation Challenges					
<i>Ground system Implementation</i>					
<i>Avionics Implementation</i>					
<i>Procedures Availability ✓</i>					
<i>Operational Approvals ✓</i>					
Notes					

Antigua and Barbuda ASBU Air Navigation Reporting Form (ANRF)					
PIA	4	Block - Module	B0 - CDO	Date	19/10/2016
Module Description: Performance-based airspace and arrival procedures allowing aircraft to fly their optimum profile using continuous descent operations (CDOs). This will optimize throughput, allow fuel efficient descent profiles, and increase capacity in terminal areas.					
Element Implementation Status					
1	Element Description: Procedure changes to facilitate CDO		30/12/2017/In Progress	Status/Developing	
	Status Details				
2	Element Description: Route changes to facilitate CDO		30/12/2017/In Progress	Status/Developing	
	Status Details				
3	Element Description: PBN STARs		30/12/2017/In Progress	Status/Developing	
	Status Details				
Achieved Benefits					
<i>Access and Equity</i>					
<i>Capacity</i> ✓					
<i>Efficiency</i> ✓					
<i>Environment</i>					
<i>Safety</i>					
Implementation Challenges					
<i>Ground system Implementation</i>					
<i>Avionics Implementation</i>					
<i>Procedures Availability</i> ✓					
<i>Operational Approvals</i> ✓					
Notes					