



# BASIC BUILDING BLOCKS (BBB)



#### **BASIC BUILDING BLOCKS (BBBs)**

The Basic Building Blocks (BBBs) outline the foundation of any robust air navigation system, identifying the essential services that must be provided to international civil aviation in accordance with ICAO standards. These essential services are defined in the areas of aerodromes, air traffic management, search and rescue, and meteorology and information management. In addition to the essential services, the BBB framework identifies the end users of these services, as well as the assets (communications, navigation and surveillance (CNS) infrastructure) required to provide them.



#### **Assessment of Basic Building Blocks (BBBs)**



Establish a baseline for the system envisaged in the GANP and ensure a solid foundation for the global air navigation system.



It is a process should focus on verifying the implementation of essential air navigation services.



The evaluation of these services should be integrated into the methodology for identifying deficiencies in regional air navigation plans.





#### BBB Framework:

- a) Meteorological services
- b) Aeronautical information services
- c) Search and rescue services
- d) ATM services
- e) Aerodrome operation services
- f) And with the new version of GANP, the necessary CNS infrastructure is integrated to provide all of the above services.





As a regional strategy for the development of CAR States' air navigation plans and the identification of regional priorities, it is necessary to identify the status of SLA implementation through the assessment of the level of implementation of the Basic Building Blocks (BBBs).





It is important to point out that the BBBs are considered essential services that the States must have in operation as a mandatory requirement, since they comply with the implementation of ICAO standards and the lack of operation of any of them is considered a deficiency.

With the BBBs assessment, the region will be able to identify:

- a. Regional deficiencies;
- b. Regional implementation status;
- c. Update information on electronic air navigation plan services in Volumes I and II;
- d. Support the implementation of priority regional projects with information.



### **BBB's EVALUATION RESULTS**

			Be	lice			Costa	Rica			EL Sal	lvador			Guate	emala			Hon	duras			Nicar	agua			COCE	SNA	
No	Servicio	PL	DV	PI	1	PL	DV	PI	-1	PL	DV	PI	1	PL	DV	PI	1	PL	DV	PI	- 1	PL	DV	PI	-1	PL	DV	PI	- 1
1	Servicio de información de vuelo				1				1				1				1				1				1				1
2	Observación meteorológica y servicio de informes				1				1				1				1				1				1				1
3	Servicio de pronóstico meteorológico aeronáutico				1				1				1				1				1				1				1
4	Servicio de avisos meteorológicos aeronáuticos				1				1				1				1				1				1				1
5	Servicio de información climatológica aeronáutica				1				1				1				1				1				1				1
6	Servicio SIGMET				1				1				1				1				1				1				1
7	Servicio AIRMET				1				1				1				1				1				1				1
8	Servicio GAMET				1				1				1				1				1				1				1
9	Servicio AIREP				1				1				1				1				1				1				1
10	Servicio WAFS				1				1				1				1				1				1				1
11	Servicio IAVW				1				1				1				1				1				1				1
12	Servicio TCAC				1				1	l			1				1				1				1				1

PL Planificado

DV En desarrollo

PI Parcialmente implementado

Omplementado

			Bel	lice			Costa	Rica			EL Salv	vador			Guate	emala			Hono	duras			Nicar	agua			COCE	ESNA	
No	Servicio	PL	DV	PI	1	PL	DV	PI	- 1	PL	DV	PI	1	PL	DV	PI	- 1	PL	DV	PI	- 1	PL	DV	PI	-1	PL	DV	PI	- 1
1	Originadores de datos aeronáuticos				1				1				1				1				1				1				1
2	Servicio de información Pre-vuelo				1				1				1				1				1				1				1
3	Servicio cartográfico				1				1				1				1				1				1				1
4	Servicio de publicación de información aeronáutica				1				1				1				1				1				1				1
5	Servicio de información Post-vuelo				1				1				1				1				1				1				1



## S&R

No	Servicio	Belice	Guatemala	Costa Rica	El Salvador	Honduras	Nicaragua	COCESNA
1	Servicio de alerta							
	Determinación de la autoridad competente responsable	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Establecer el servicio de alerta para los servicios de tránsito aéreo	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	La designación de las regiones de información de vuelo aquellas partes del espacio aéreo en las cuales se decida facilitar servicio servicio de alerta.	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Establecimiento y designación de las dependencias que facilitaran los servicios de alerta que facilitan servicios de tránsito aéreo	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Establecer y aplicar el servicio de alerta	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Notificación a los centros coordinadores de salvamento (Fases de alerta)	Sí	Sí	Sí	Sí	Sí	Sí	Sí
2	Coordinación INCERFA							
	Información relativa a las emergencias	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	C Procedimientos para los centros coordinadores de salvamento durante O las fases de emergencia (Fases de alerta)	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	O Procedimientos cuando la responsabilidad  de las operaciones corresponde a dos o más Estados contratantes	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	D Procedimientos para las autoridades I que dirigen las operaciones desde N el lugar del suceso	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	A Procedimientos para la terminación y suspensión de las operaciones por parte C de los centros coordinadores I de salvamento	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	O Procedimientos que deben seguirse en el lugar de un accident	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	N Procedimientos que debe seguir E un piloto al mando que capte							
	g una transmisión de socorro	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Señales de búsqueda y salvamento	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Registros	Sí	Sí	Sí	Sí	Sí	Sí	Sí



BBB Element ICAO References: Annex 11 (Air Traffic Services) & PANS-ATM (Doc 4444)	Belice					
BBB overall evaluation result: (Implemented, Partially Implemented, Planned, In development, Not Applicable)	PL	DV	PI	1		
Requirement	ICAO reference doc(s)	Evaluation result				1
Flight information centres shall be established to provide flight information service and alerting service within flight information regions, unless the responsibility of providing such services within a flight information region is assigned to an air traffic control unit having adequate facilities for the discharge of such responsibility	Annex 11, Chapter 2.1 (General)	(Implemented, Not Implemented, Not Applicable, Planned, Developing)				1
Air traffic control units shall be established to provide air traffic control service, flight information service and alerting service within control areas, control zones and at controlled aerodromes	Annex 11, Chapter 2.1 (General)	(Implemented, Not Implemented, Not Applicable, Planned, Developing)				1
Alerting service shall be provided:  a) for all aircraft provided with air traffic control service;  b) in so far as practicable, to all other aircraft having filed a flight plan or otherwise known to the air traffic services;  and  c) to any aircraft known or believed to be the subject of unlawful interference.	Annex 11, Chapter 5 (Alerting Service)	(Implemented, Not Implemented, Not Applicable, Planned, Developing)				
Flight information centres or area control centres shall serve as the central point for collecting all information relevant to a state of emergency of an aircraft operating within the flight information region or control area concerned and for forwarding such information to the appropriate rescue coordination centre.	Annex 11, Chapter 5 (Alerting Service)	(Implemented, Not Implemented, Not Applicable, Planned, Developing)				1
In the event of a state of emergency arising to an aircraft while it is under the control of an aerodrome control tower or approach control unit, such unit shall notify immediately the flight information centre or area control centre responsible which shall in turn notify the rescue coordination centre, except that notification of the area control centre, flight information centre, or rescue coordination centre shall not be required when the nature of the emergency is such that the notification would be superfluous.	Annex 11, Chapter 5 (Alerting Service)	(Implemented, Not Implemented, Not Applicable, Planned, Developing)				1
Nevertheless, whenever the urgency of the situation so requires, the aerodrome control tower or approach control unit responsible shall first alert and take other necessary steps to set in motion all appropriate local rescue and emergency organizations which can give the immediate assistance required.	Annex 11, Chapter 5 (Alerting Service)	(Implemented, Not Implemented, Not Applicable, Planned, Developing)				1
Without prejudice to any other circumstances that may render such notification advisable, air traffic services units shall, except as prescribed in 5.5.1, notify rescue coordination centres immediately an aircraft is considered to be in a state of emergency in accordance with the following:  a) Uncertainty phase when:	Annex 11, Chapter 5 (Alerting Service)	(Implemented, Not Implemented, Not Applicable, Planned, Developing)				
<ol> <li>no communication has been received from an aircraft within a period of thirty minutes after the time a communication should have been received, or from the time an unsuccessful attempt to establish communication with such aircraft was first made, whichever is the earlier, or when</li> <li>an aircraft fails to arrive within thirty minutes of the estimated time of arrival last notified to or estimated by air traffic services units,</li> </ol>						
whichever is the later, except when no doubt exists as to the safety of the aircraft and its occupants.  b) Alert phase when:  1) following the uncertainty phase, subsequent attempts to establish communication with the aircraft or inquiries to other relevant.						

#### **Results:**

Overall, the Central American IRF has implemented 100% of the mandatory services (BBB). Opportunities for improvement have been identified:

- 1. Meteorological Services
- 2. Aeronautical Information Services
- 3. Search and Rescue Services.
- 1. ATM services present many strengths in the service, even with ASBU elements in their Block 0 and 1 already operating.
- 2. The CNS infrastructure is another of its strengths, but there are weaknesses in its management of aeronautical frequencies.







## Thank You!