Fifth NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/5)
Mexico City, Mexico, 27 to 31 August 2019

Agenda Item 2: **Review and Follow-up to Valid Conclusions/Decisions of the ANI/WG/04, NACC/WG/05 and GREPECAS/18 Meetings**

2.1.1 Progress reports of the Task Forces of the ANI/WG. States' implementation status

PROGRESS REPORT ON ASBU TASK FORCE WORK PROGRAMME

(Presented by ASBU Task Force Rapporteur)

EXECUTIVE SUMMARY

This working paper presents the progress achieved by the Aviation System Block Upgrades Implementation Task Force (ASBU/TF) since the Fourth NAM/CAR ANI/WG Meeting in Miami, Florida in August 2018. The major accomplishment of the ASBU TF was to assist States/Territory/Organizations to prepare their Air Navigation Plans (ANPs) with the support of the ICAO NACC Regional Office. In addition, the ASBU/TF drafted the North America ANP Volume III containing dynamic and flexible plan elements guided by the Global Air Navigation Plan (GANP)/ASBU and regional specific needs. This document is in the process of internal organizational reviews and the expected delivery to the ICAO NACC RO is in the summer/fall of 2019.

Action:	• Described is Section 4
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency
References:	• GANP, 5th Edition (*Doc 9750*) • ASBU, the Framework for Global Harmonization, issued July 2016 • NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) • Manual on Global Performance of the Air Navigation System (Doc 9883) • ANI/WG/3 Meeting report, Mexico City, Mexico, April 2016 • Fifth NACC Working Group Meeting (NACC/WG/5) report, Port of Spain, Trinidad and Tobago, May 2017 • ANI/WG/4 Meeting report, Miami, Florida, USA, August 2018

1.   Introduction

1.1   The Aviation System Block Upgrades Implementation Task Force (ASBU/TF) was established during the NACC/WG/5 Meeting in Trinidad and Tobago in May 2017. The ICAO Global Air Navigation Plan (GANP) is designed to guide complementary and sector-wide air transport to future progress. The GANP presents the consensus-driven ASBU system's engineering framework for global harmonization of aviation technologies. The formation of ANI/WG ASBU TF reflects the importance of such advancements in the NACC Region. The objective of the ASBU/TF is to assist the region in the implementation of harmonized technologies that support the operation.

2.   Background

2.1   ASBU/TF Web Page: The ASBU/TF web page was created and maintained by the ICAO NACC RO. This web page plays an important role as a communication facilitator and information sharing method. This page shares information such as NACC ASBU Handbook, ASBU Air Navigation Reporting Form (ANRF), ASBU Block 0 Implementation Status Summary Table Template, ToRs, and Work Program. The submitted State ANRFs and ANPs can be accessed through this page (https://www.icao.int/NACC/Pages/regional-group-asbu.aspx).

2.2   State ANP: Saint Lucia and the ASBU TF Rapporteur collaborated to prepare the Saint Lucia State ANP in September 2017. The experience to create the State ANP, which has the structure to work together with the RPBANIP, was vital and provided valuable lessons. Using this experience, the process to create the State ANP was identified and the State ANP template was made. Many States in the CAR Region do not have a comprehensive State ANP aligned with the GANP/RPBANIP. Whilst, the use of this template is not mandated; it is available to assist States creating an ANP.

2.3   State ANP: The ICAO NACC RO and ASBU/TF Rapporteur organized the State ANP Development Workshop. This 1st workshop was hosted by the ICAO NACC RO in Mexico City, Mexico, from 12 to 15 March, 2018. Attendees were Barbados, Belize, Curaçao, Mexico, and COCESNA. The class size was small, but this size was perfect as it allowed the Development Workshop to provide sufficient attention to each attendee. Upon completion of the Workshop, all attendees created their State ANP in draft form, including all Block 0 ANRFs.

2.4   Regional ANP: The NAM/CAR RPBANIP was updated to version 3.1 in April 2014 by aligning the activities and strategies with ICAO ASBU methodology/framework. The ASBU/TF supported the ICAO NACC RO to revise RPBANIP from version 3.1 to version 4. Since the last update of RPBANIP, the ICAO NACC RO studied the ASBU methodology/framework and found the better way to communicate the concept of ASBU, its intention, and how it can be applied to support the States. The RPBANIP version 4 provides realistic metrics and targets, a clear ASBU implementation process, and reporting mechanisms.

2.5   Regional ANP: The NAM/CAR RPBANIP covers both NAM and CAR regions. The ICAO NACC RO recommended to separate NAM and CAR in preparation of regional e-ANPs to reflect the geographical differences between them and adequate alignment between documents. This way, the ICAO NACC RO can better provide the required support to the necessary areas/locations.

2.6   Regional ANP: The NAM/CAR RPBANIP will become two documents. The CAR RPBANIP will cover the CAR region, while the NAM e-ANP Volume III will cover the North America region.

2.7   Regional ANP: The ICAO NACC RO representatives and ASBU/TF Rapporteur met on 15 and 16 May, 2018 and worked on the ASBU-related sections of the RPBANIP in preparation of next version. Canada and United States will prepare the NAM ANP Volume III under the guidance of the ICAO NACC RO.

3.   ASBU/TF Progress and Results

3.1   Work Programme and Membership Table: **Attachment** contains the Terms of Reference (ToR) of this TF. The updated Work Programme and Membership Table are included in the ToR.

3.2   State ANP: The ICAO NACC RO organized the 2nd ANP Development Workshop for Central American states, hosted by COCESNA in Tegucigalpa, Honduras, from 6 to 9 August, 2018. Attendees were Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and COCESNA. While Belize and COCESNA refined their ANPs from the 1st ANP Development Workshop, other first time participants successfully drafted their State ANPs.

3.3   State ANP**:** The ICAO NACC RO organized the 3rd ANP Development Workshop for Eastern Caribbean States, hosted by Barbados Civil Aviation Authority in Bridgetown, Barbados, from 6 to 9 November, 2018. Attendees were Antigua and Barbuda, Barbados, Haiti, Saint Vincent and Grenadines and Trinidad and Tobago. While Barbados refined their ANP from the 1st ANP Development Workshop, other first time participants successfully drafted their State ANPs.

3.4   State ANP: With three ANP Development Workshops organized in 2018, 16 out of 21 targeted state/territory/organizations have successfully prepared their ANPs. Additional Workshop is considered in 2019. The goal is for all CAR states to have their State ANP.

3.5   State ANP: The ICAO has the "No Country Left Behind (NCLB)" initiative, highlighting its efforts to assists States in implementing ICAO Standards and Recommended Practices (SARPs). The preparation of a State ANP provides the awareness of SARPs to implement certain ASBU capabilities.

3.6   NAM ANP Volume III: Guided by the ICAO NACC RO, the NAM region is working to prepare the NAM ANP Volume III covering Canada and United States. The final draft version of NAM ANP Volume III is prepared and it is in the process of obtaining the approvals from States´s authorities.

4.   Suggested Actions

4.1   The Meeting is invited to:

a) Each State provides the ASBU/TF Point of Contact information. Primary PoC (minimum) and Secondary PoC (multiple Secondary PoCs are accepted) need to communicate with the ASBU TF Rapporteur;
b) Each State must submit the Air Navigation Report Forms (ANRFs) for ASBU Block 0 Modules/Elements (Note: State ANP includes this information)
c) Evaluate the progress of the ASBU TF detailed in this paper;
d) Review and comment on the ASBU TF ToR;
e) Review and comment on the ASBU TF Work Program;
f) Consider participating in the State ANP Development Workshop when available; and
g) Prepare and maintain the State ANP.

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APPENDIX

TERMS OF REFERENCE
AVIATION SYSTEM BLOCK UPGRADE (ASBU) TASK FORCE

1.   Background

1.1.   At the ANI/WG/2 Meeting in June 2015, an ad hoc group was formed to discuss metrics of the ASBU Block 0 implementation status, performance reporting and revisions to the Air Navigation Reporting Forms (ANRF), which will be used by States and Territories in the NAM/CAR regions. In the ANI/WG/2 report, this ad hoc group was named the ANRF Ad Hoc group. Their given tasks are:

a)   For the NAM/CAR States/Territories to review and adopt the proposed new ANRFs for application by June 2016;

b)   For the NAM/CAR States/Territories to assess their status of implementation and report to ICAO NACC Regional office by 30 July 2016; and

c)   For ICAO to organize, by the first semester of 2016, a hands-on ANS/ASBU ANRF workshop to improve the use and understanding of the new ANRFs with the participation of CANSO, IATA, civil aviation training centers and air navigation planning experts.

1.2.   At the ANI/WG/3 Meeting in April 2016, the delegates agreed to more active participation from their States/ANSPs to reflect their national priorities and users' main needs. They agreed to create an ad hoc group to support the review, follow-up and reporting on the achievement of the air navigation (AN) targets established in the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) and in the Port-of-Spain Declaration. During ANI/WG/3, this group was named the "ASBU Ad Hoc Group".

1.3.   At the NACC/WG/5 Meeting in May 2017, the delegates agreed that the ASBU Ad Hoc Group would become the ANI/WG ASBU Task Force (TF).

2.   Objectives

        To assist the region in the implementation of harmonized technologies that support the operation, the Task Force will:

1)   Develop effective methods to determine the regional implementation status of the ASBU Block-0 elements and the performance monitoring of the Regional Air Navigation System, on a cyclical annual basis, as a regional input to the Annual Global Air Navigation Report and feedback for the Global Air Navigation Plan and the Regional Dashboard.

2)   Assist NACC's States to formulate or update their National Air Navigation Plans by using a planning process to ensure alignment with the RPBANIP and the GANP.

3)   Contribute with the continuous updating of the RPBANIP in order to maintain the validity, accuracy, and applicability of the Plan.

3.   **Responsibilities**

The Task Force is responsible for:

a)   Work Programme Management;

b)   Coordination and support of the development and maintenance of State/Territory Air Navigation Plans; and

c)   Support the revision and enhancement of Regional Performance Based Air Navigation Implementation Plan (RPBANIP)

4.   **Working Methods**

The Task Force will:

a)   Present its work programme containing activities in terms of objectives, responsibilities, deliverables and timelines;

b)   Avoid duplicating work within the ANI/WG and maintain close coordination among the existing entities to optimize use of available resources and experience;

c)   Designate, as necessary, ad hoc groups to work on specific topics and activities and organize clearly defined tasks and activities;

d)   Coordinate tasks to maximize efficiency and reduce costs via electronic means including emails, telephone and teleconference calls, and convene meetings as necessary; and

e)   Report on and coordinate the progress of assigned tasks to the ANI/WG.

5.   **Work Programme – See the Attachment A.**

6.   **Membership**

All ICAO States, Territories and International Organizations which are accredited to the ICAO NACC Regional Office, as well as other stakeholders in the NAM/CAR Regions, are encouraged to actively participate. **Attachment B** lists the Point of Contacts.

7.   **References**

- Global Air Navigation Plan, 2016-2030 (Doc 9750-AN/963 Fifth Edition – 2016)
- The Aviation System Block Upgrades; the Framework for Global Harmonization, issued July 2016.
- Doc 9854 Global Air Traffic Management Operational Concept
- Doc 9882 Manual on Air Traffic Management System Requirements
- Doc 9883 Manual on Global Performance of the Air Navigation System

Attachment A

ASBU TF Work Programme

Updated on April 17, 2019

This ASBU Task Force (TF) work programme covers the basis for the preparation and maintenance of State ANPs by each member states in the region. To prepare and maintain the State ANPs, States need to understand GANP/ASBU in addition to their States' needs in current and future aviation technologies. The State ANP should be used by the State to strategically plan what capability will be implemented and when to implement it.

Note 1: This document establishes a guideline for attaining ASBU NAM/CAR goals and will be reviewed periodically throughout the year. A formal review each calendar year shall be conducted during the ANI/WG and NACC/WG meeting so as to update/revise/modify its content for currency and applicability.

Note 2: The GANP/ASBU will be updated every 3 years with ASBU Block definitions maturing every 6 years. Thus, minor updates are expected every 3 years and significant updates are expected every 6 years.

Objective 1: Develop effective methods to determine the regional implementation status of the ASBU block-0 elements and the performance monitoring of the Regional Air Navigation System, on a cyclical annual basis, as a regional input to the Annual Global Air Navigation Report and feedback for the Global Air Navigation Plan and the Regional Dashboard.

No	Activity	Purpose	Deliverable
1.1	**Establish and Update the ASBU TF PoC List** • Draft the letter (by NACC RO and TF Rapporteur; Target Date: Dec 19, 2017) **- Completed** • Send a letter to request the PoC information States, Territories, and other stakeholders (by NACC RO; Target Date: Jan 12, 2018) **- Completed** • Receive the response (by NACC RO; Target Date: Feb 9, 2018) **- Completed** • Create the ASBU TF PoC List (by NACC RO; Target Date: Feb 9, 2018) **- Completed** • Distribute the ASBU TF PoC list via ASBU Website (by NACC RO; Target Date: Feb 16, 2018) **- Completed** • Update the ASBU TF PoC List (by NACC RO and TF Rapporteur; Target Date: as needed) **– To be completed by ANI/WG/5 participating States**	Each organization needs a PoC who is responsible for their ANP.	PoC List
	Status/Remarks: There are 21 States and one Territory in the Region who should have State ANP that is aligned with GANP and Regional ANP. In addition, COCESNA should have its ANP. Further coordination and investigation is needed by the NACC RO regarding the Territory handling. This coordination will take place once the Objective 1 is accomplished initially.		
1.2	**Generate ANRF** • Fill in forms (by each State; Target Date: Apr 30, 2018) • Fill in State Summary Table (a.k.a. Pretty Table) (by each State; Target Date: Apr 30, 2018) • Examine and update the ANRF (by ASBU TF and each State; Target Date: May 31, 2018) • Keep track of ANRF status (by NACC RO and TF Rapporteur; Target Date: from Jan 2018 to Dec 2018) • Generate the Regional Summary Table (a.k.a. Pretty Table) (by NACC RO and TF Rapporteur; Target Date: May 31, 2019)	Support the ANRF generation at two levels: (1) the form itself and (2) contents of the form by State.	• ANRF Form Template • ANRFs by States and Territories • State and Regional Summary Table
	Status/Remarks: • As of August 15, 2018, following organizations have filled in ANRFs: Barbados, Belize, Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Saint Lucia, Trinidad and Tobago, Curacao, and COCESNA. • April 17, 2019: Generation of ANRF became part of the State ANP creation. Refer to Task2.2.		
1.3	**Performance Monitoring** • Analyze States specific needs (by each State; Target Date: Apr 30, 2018) • Determine regional needs (by NACC RO; Target Date: Apr 30, 2018) • Propose the Regional Performance Objectives (by NACC RO; Target Date: May 31, 2018)	Promote the formulation of a measurement strategy and identify the regional performance metrics.	Regional performance metrics
	Status/Remarks: None		

No	Activity	Purpose	Deliverable
Objective 2: Assist NACC' States to formulate or update their National Air Navigation Plans by using a planning process to ensure alignment with the RPBANIP and the GANP.		
2.1.	**Schedule assistance activities** • Assess training/discussion needs of ANSPs (by NACC RO; Target Date: Jan 31, 2018) **- Completed** • Establish a list of training/discussion subjects (by NACC RO and TF Rapporteur; Target Date: Jan 31, 2018) **- Completed** • Establish schedule (by NACC RO and TF Rapporteur; Target Date: Jan 31, 2018) **- Completed** • Publish/coordinate events (by NACC RO; Target Date: Jan 31, 2018) **- Completed** • Perform ASBU workshops/seminars/meeting (by NACC RO and TF Rapporteur; Target Date: Jan 31, 2018) **– Completed** • Host the 2nd State ANP Workshop (scheduled at COCESNA for central American states in August 2018) **– Completed** • Host the 3rd State ANP Workshop (scheduled in Barbados for ECAR states in November 2018) **– Completed** • Host the 4th State ANP Workshop (TBD, 2019)	Provide a foundational baseline of refresher & supplemental training for personnel involved in ANP and ASBU.	WS/Seminar/ Meeting Materials and Report
	Status/Remarks: NACC RO hosted the 1st State ANP Workshop in Mexico City, Mexico on March 12-15, 2018. The WS was very well received and two additional WSs are scheduled in August and November 2018. April 17, 2019: See Task 2.2 Remarks for the details of ANP WS results.		
2.2	**Support Creation of State ANP** • Prepare the State ANP template (by ASBU TF; Target Date: Jan 15, 2018) **- Completed** • Create the initial State ANP (by each State; Target Date: May 31, 2019) **– Three WS were organized in 2018. 16 out of 21 targeted state/territory/organization created draft/initial ANP.** • Support States to finalize the initial State ANP (by each State; Target Date: TBD)	Ensure that all States in the region have their own State ANP which is aligned with the Regional ANP as well as GANP.	• State ANP template • Initial State AMP Status summary • State ANPs
	Status/Remarks: Use of State ANP template is optional. Saint Lucia worked with the TF Rapporteur prior to the WS and has draft State ANP. The 1st ANP Workshop: Barbados, Belize, Curacao, Mexico, and COCESNA created the draft State ANPs including the new/updated ASBU B0 ANRFs during March 12-15, 2018. The 2nd ANP Workshop: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Dominican Republic created the draft state ANPs during August 6-9, 2018. Belize and COCESNA refined their ANPs. The 3rd ANP Workshop: Antigua and Barbuda, Haiti, Saint Vincent and Grenadines, Trinidad and Tobago, and Barbados during November 6-9, 2018.		
2.3	**Support Updates of State ANP** • Update the State ANP (by each State; Target Date: annual) • Support States to update their State ANPs (by NACC RO and TF; Target Date: as needed) • Keep State ANP status known (by ASBU TF)	Ensure the State ANP information is current.	• Updated State ANP • State AMP Status summary
	Status/Remarks: None		

Objective 3: Contribute with the continuous updating of the RPBANIP in order to maintain the validity, accuracy, and applicability of the Plan.			
No	Activity	Purpose	Deliverable
3.1	**Support RPBANIP** • Identify the necessary updates that need to be applied to the existing RPBANIP (by NACC RO and TF; Target Date: Feb 28, 2018)) **- Completed** • Identify the regional goals/objectives that should be reflected in the RPBANIP (by NACC RO; Target Date: Feb 28, 2018) **– Guideline for the next version of RPBANIP is determined.** • Identify the needs of States in the region (by NACC RO and TF; Target Date: Feb 28, 2018) **– Guideline for the next version of RPBANIP is determined.** • Update RPBANIP (by NACC RO and TF; Target Date: May 31, 2018)) **- Underway**	Ensure the RPBANIP that is aligned with GANP/ASBU and reflect the needs of States in the region and the information is current.	Updated RPBANIP
	Status/Remarks: The State ANPs will reflect guidance from the RPBANIP while the RPBANIP will reflect the needs described in the State ANPs.		
3.2	**Update NACC ASBU Handbook and Other Support Materials** • Update the NACC ASBU Handbook (by ASBU TF; Target Date: After the 2019 version of GANP/ASBU is released.) • Identify other ASBU materials that will support the States to prepare State ANPs and provide such materials to the States. (by ASBU TF; Target Date: As needed.)	Provide materials for States and stakeholders and the aviation community to understand the ASBU.	NACC ASBU Handbook and other support materials
	Status/Remarks: None		
3.3	**Provide ANI/WG ASBU Website** • Design ANI/WG ASBU Website and implement (by NACC RO and ASBU TF; Target Date: March 31, 2018) **- Completed** • Update ANI/WG ASBU Website (by NACC RO; Target Date: As needed) • Add "Bible" link to the ANIWG ASBU webpage **- Completed**	Provide the capability to exchange ASBU related information as well as store information	ANI/WG ASBU Website
	Status/Remarks: ICAO NACC Regional Office is the webmaster.		
3.4	**Support ANI/WG Decisions** • Provide progress report/update for Chairperson for relevant meetings such as NACC/WG and ANI/WG (by ASBU TF; Target Date: Associated with NACC/WG and ANI/WG dates)	Liaison between Regional Coordination Groups and ASBU TF	Revised ToR to ICAO RO
	Status/Remarks: ANI/WG/5 meeting is scheduled for May 27-31, 2019 in Mexico City, Mexico.		

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Attachment B

Membership

Aviation System Block Upgrades (ASBU) Task Force

Rapporteur: Midori Tanino, United States
NACC Officer: Luis Sánchez

States		Member	Email	Remarks
Antigua & Barbuda		(P) Shenneth Phillips (S)	Shenneth.Phillips@ab.gov.ag	Need verification
Bahamas		(P) (S)		Need PoC
Barbados		(P) Zeta Morris (S) Kendrick Mason	zeta.morris@barbados.gov.bb kendrick.mason@barbados.gov.bb	Verified at the 1st WS.
Belize		(P) Gilberto Orlando Torres (S) Marco Castellanos	gilberto.torres@civilaviation.gov.bz mikecharlie68@gmail.com	Verified at the 1st WS. (S) added at the 2nd WS.
Canada		(P) Kelly McIlwaine (S)	Kelly.McIlwaine@navcanada.ca	Verified on April 11, 2019
Costa Rica		(P) Carlos Bolanos (S) Fernando Zeledón	cbolanos@dgac.go.cr fzeledon@dgac.go.cr	Need verification (S) added at the 2nd WS.
Cuba		(P) Iván González Valdés (S) Orlando González		Need verification.
Dominican Republic		(P) Julio Mejia (S) Francisco Bolivar León	jmejia@idac.gov.do	Need verification of (S).
El Salvador		(P) Rolando Hernandez (S) Danilo Ramirez (S) Marco Henríquez	rhernandez@aac.gob.sv Danilo.ramirez@dgac.go.cr mhenriquez@aac.gob.sv	Need verification.
Grenada		(P) (S)		Need PoC
Guatemala		(P) Mynor Xoy Chiquin (S) Silvia Jeaneth Herrera	mynor.xoy@dgac.gob.gt jeaneth.herrera@dgac.gob.gt	Need verification. 2nd WS participants.
Haiti		(P) Joseph Boursiquot (S) Mario Eric Legagneur		Need verification.
Honduras		(P) Yalena Bonilla (S) Heriberto Sierra (S) Eric Martinez	ybonilla@ahac.gov.hn hsierra@ahac.gov.hn emartinez@ahac.gov.hn	Need verification. 2nd WS participants.

	Jamaica	(P) Christopher Chambers (S) Orville Shaw		Need verification.
	Mexico	(P) José I. Gil Jimenez (S) Martin García Hernández	jigiljim@sct.gob.mx mgarcher@sct.gob.mx	Verified at the 1st WS.
	Nicaragua	(P) Hugo Cano (S) Luis Mahamud	osuprad@inac.gob.ni ona@inac.gob.ni	Need verification. 2nd WS participants.
	Saint Kitts & Nevis	(P) (S)		Need PoC
	Saint Lucia	(P) Lynden Leonce (S) Amy Charles	Lynden.Leonce@slaspa.com Amy.Charles@slaspa.com	Verified.
	Saint Vincent & the Grenadines	(P) (S)		Need PoC
	Trinidad and Tobago	(P) Rohan Garb (S) Robert Rooplal	rgarb@caa.gov.tt	Need verification.
	United States	(P) Midori Tanino (S) Leah Moebius	Midori.Tanino@faa.gov Leah.Moebius@faa.gov	Verified.
Territories with ANP				
	Curacao	(P) Inberto Vos (S) Michael Celestjin	I.vos@dc-ansp.org michael.celestijn@gobiernu.cw	Verified at the 1st WS.
Territories - Participation				
	Aruba			Participate via Curacao
	Bonaire			Participate via Curacao
Organization with ANP				
	COCESNA	(P) Pablo Luna (S) Cesar Nunez	Pablo.Luna@cocesna.org Cesar.Nunez@cocesna.org	Verified at the 1st WS.
Organization - Participation				
	CANSO	(P) Javier Vanegas	Javier.Vanegas@canso.org	Need verification.
	IATA	(P) Marco Vidal Macchiavello	vidalm@iata.org	Need verification.

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