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Fort-de-France, Martinique, 15 to 17 July 2026

Agenda Item 4: Follow-up of the activities of the E/CAR/CATG

STATUS OF ANS PROVISION IN THE FRENCH WEST INDIES (GUADELOUPE AND MARTINIQUE) AND FRENCH GUIANA

(Presented by France)

EXECUTIVE SUMMARY	
This information paper outlines the provision of air navigation services in the French West Indies (Guadeloupe and Martinique) and French Guiana , including the operational context, services provided, key challenges and opportunities, and current, ongoing or planned implementation projects.	
<i>Strategic Objectives:</i>	• Every Flight is Safe and Secure • Aviation is Environmentally Sustainable • Aviation Delivers Seamless, Accessible, and Reliable Mobility for All • No Country Left Behind
<i>References:</i>	• Summary of Discussions for the Ninth Eastern Caribbean Civil Aviation Technical Group (E/CAR/CATG/9) Meeting, Miami, United States, 28 to 31 July 2025

1. Introduction

1.1 **Guadeloupe and Martinique** are two French overseas departments located in the Eastern Caribbean. As part of the French Republic, their air navigation services (ANS) are provided by the Direction des Services de la Navigation Aérienne (DSNA), the French air navigation service provider, through its regional unit, the Service de la Navigation Aérienne Antilles-Guyane (SNA-AG), headquartered at Martinique Aimé Césaire airport (Le Lamentin).

1.2 The two islands are served by international airports — Martinique Aimé Césaire (TFFF) and Guadeloupe Pointe-à-Pitre/Le Raizet, now Maryse Condé (TFFR) — that constitute major gateways for the Eastern Caribbean; in Martinique, the operational control unit and the SNA-AG headquarters are merged on a single site at Martinique Aimé Césaire airport (Le Lamentin), while in Guadeloupe, air navigation services are delivered by the Organisme de Contrôle de Pointe-à-Pitre (OC PTP), comprising tower and approach, within the horizontal limits of the Pointe-à-Pitre TMA from the ground to FL245.

1.3 Reliable air navigation services are essential to support the safety, regularity and efficiency of the significant international, regional and domestic traffic operating to and within the French

West Indies, and to ensure seamless coordination with neighbouring States and Territories of the Piarco Flight Information Region (FIR).

1.4 **French Guiana (Guyane)** is a French overseas department located on the north-eastern coast of South America. Its air navigation services are likewise provided by the DSNA through the SNA-AG, whose Cayenne air traffic control centre constitutes the third operational site of the regional unit, alongside Martinique and Guadeloupe. French Guiana is served by Cayenne-Félix Éboué airport (SOCA), acting as a gateway towards the Caribbean arc, the United States, Europe and northern Brazil. Unlike the French West Indies, French Guiana lies within its own Flight Information Region — the Cayenne FIR/UIR (SOOO) — a vast airspace of some 1.5 million square kilometres, including a large oceanic portion entrusted to France by ICAO. Traffic is highly varied, ranging from wide-body and turboprop commercial aircraft and general/light aviation to outsized cargo flights serving the Guiana Space Centre, and is split broadly evenly between IFR and VFR operations.

2. Background

2.1 The airspace of Guadeloupe and Martinique lies within the Piarco Flight Information Region (FIR), for which Trinidad and Tobago provides the area control service. France is responsible, under a delegation agreement with Trinidad and Tobago, for the provision of air traffic services within the Fort-de-France (Martinique) and Pointe-à-Pitre (Guadeloupe) Terminal Control Areas (TMAs) and associated Control Zones (CTRs), from the ground up to flight level 245 (FL245), through the SNA-AG. The lateral limits of these TMAs and CTRs are published in the French Aeronautical Information Publication (AIP) for the CAR/SAM/NAM area. The two islands' aeronautical Search and Rescue Regions (SRRs) are coincident with their respective TMAs, and therefore function as SAR Rescue Sub-Centres (RSCs).

2.2 The SNA-AG provides the full range of air navigation services for Guadeloupe and Martinique: air traffic services (approach and aerodrome control, alerting service and flight information service within the Fort-de-France and Pointe-à-Pitre TMAs/CTRs), aeronautical information management (AIM), communication, navigation and surveillance (CNS) services, meteorological liaison, and search and rescue coordination. As these are French departments, services are delivered in accordance with ICAO Standards and Recommended Practices as transposed through the European Union and French regulatory frameworks, with documentation published in both French and English. The working language for international coordination within the E/CAR is English.

2.3 **ATS:** Approach and aerodrome control services are provided for Martinique Aimé Césaire (TFFF) and Guadeloupe (TFFR), with Martinique Approach handling the Martinique TMA, and Raizet Approach handling the Guadeloupe TMA. **Surveillance:** both Martinique and Guadeloupe are equipped with secondary surveillance radars retrofitted to Mode S; the Guadeloupe centre (OC PTP) benefits from a feed from its own radar together with that of Martinique to build a consolidated surveillance picture, and the Martinique sensor in particular feeds the regional surveillance picture, France making radar data from the Martinique and Guadeloupe sensors available to E/CAR States under the regional Radar Data Sharing arrangements. **Navigation (CNS):** both islands are equipped with DVOR/DME and ILS — Guadeloupe being served by a VOR/DME (PPR) located on the airfield and a full ILS Cat I (LLZ, GP, DME ATT), its NDB (PTP) being about to be decommissioned — and GNSS-based approaches are available; AFS network nodes serving the French West Indies form part of the regional IP-based communications network. **Instrument Flight Procedures Design:** IFP for the French aerodromes of the SNA-AG are designed and maintained by the Bureau des Procédures du SIA (BPS) of the French AIS (SIA, Bordeaux-Mérignac),

under DSNA national procedures. AIM: aeronautical information for the French West Indies (AIP, AIP supplements and series A AIC) is published by the French AIS (SIA, Bordeaux-Mérignac), while the international dissemination of NOTAM for both Guadeloupe and Martinique is handled by the Piarco International NOTAM Office (NOF) in Trinidad and Tobago. There is a single flight briefing office for the whole SNA-AG — the BRIA Antilles-Guyane — located on the two West Indies sites (Martinique and Guadeloupe), which operates the flight briefing and flight-plan service for Guadeloupe, Martinique and French Guiana. MET: meteorological service is provided in coordination with Météo-France. SAR: the Fort-de-France and Pointe-à-Pitre Aeronautical Rescue Sub-Centres (ARSC) coordinate search and rescue within the limits of their respective TMAs.

2.4 The Guadeloupe and Martinique TMAs sit within the Piarco FIR, for which area control and the en-route service are provided by Trinidad and Tobago (Piarco ACC). By means of an agreement, Trinidad and Tobago delegates to France the provision of air traffic services within the lateral limits of the Fort-de-France and Pointe-à-Pitre TMAs, from the ground up to flight level 245 (FL245); these services are delivered by the SNA-AG. For search and rescue, the French West Indies ARSC operate by delegation of authority from the Piarco Rescue Co-ordination Centre (RCC) and in close collaboration with it; under this arrangement the Fort-de-France and Pointe-à-Pitre ARSC are responsible for directing SAR operations for aircraft in distress within the lateral limits of their respective TMAs. France makes its Martinique and Guadeloupe radar data available to neighbouring E/CAR States through the regional Radar Data Sharing project, the Martinique and Guadeloupe sensors contributing to the regional surveillance picture alongside the radar data server in Trinidad and Tobago; ongoing coordination has addressed the telecommunications links for radar data delivery between Piarco and Martinique. The 2025 SAREX highlighted the need to formalise Letters of Agreement (LOAs) between the Piarco RCC and the French ARSC/MRCC to consolidate these delegation arrangements.

2.5 In French Guiana, the situation differs from that of the French West Indies in that France holds the Cayenne FIR/UIR (SOOO) in its own right, the oceanic part having been entrusted to France by ICAO under regional air navigation agreements. The Cayenne centre therefore provides the full spectrum of services within this airspace: en-route control over the oceanic sector, approach and aerodrome control for Cayenne-Félix Éboué, together with flight information and alerting services in the uncontrolled portions. By day, activity is centred on the domestic and international traffic to and from Cayenne; controllers work the approach and aerodrome positions on the IRMA tool, fed by a military radar, and communicate with pilots by VHF. Since 2016, runway 08/26 has been equipped with GNSS (satellite-based) arrival procedures offering minima equivalent to the in-service ILS (Category 1). By night and into the early morning, activity concerns essentially the transatlantic traffic transiting the oceanic sector, where an average of 30 to 40 flights typically operate per night, with peaks of 15 to 20 flights concentrated on the slots between 0100 and 0300 local time.

2.6 In the oceanic en-route environment, controllers use the CACAO system, which displays flights through ADS-C and enables silent data-link communication with crews by satellite (CPDLC); this complements, and is more efficient than, HF voice, which is retained as a back-up and remains the primary means for non-equipped aircraft. Ground-ground coordination by telephone with adjacent centres is carried out by satellite over the REDDIG (South America) and AFISNET (Africa and part of South America) networks. For surveillance, approach and aerodrome control rely on a military radar, while a network of five ground ADS-B receiving stations — deployed across French Guiana at Mana, Mont Matoury, Félix Éboué, Saint-Georges and Maripasoula — has been commissioned and is operational since 1 March 2020. These stations provide a TIER 3 service (flight information and alerting) for aircraft equipped with compatible transponders, with cooperative surveillance extending up to some 200 NM off the coast; in

this context the use of ADS-B information does not change the method of separation, which remains based on procedural control with the possible assistance of radar imaging. This deployment, published in AIC CAR/SAM/NAM A 02/20, markedly improves the quality of the flight information and alerting services, including for search-and-rescue. France assures search-and-rescue responsibilities for aircraft in distress within the Cayenne and Suriname FIRs, determined by ICAO regional agreements; a Rescue Co-ordination Centre (RCC) is embedded within the Cayenne centre under the authority of the centre chief, and in the event of an accident in the oceanic sector the Cayenne RCC alerts the Maritime Rescue Co-ordination Centre (MRCC) of Fort-de-France or MRCC Belem. Aeronautical information services for French Guiana are no longer provided by a local briefing office: the Cayenne BRIA has closed and its missions have been redistributed within the SNA-AG and the French AIS — flight-plan handling is now carried out by the single BRIA Antilles-Guyane on the two West Indies sites, while NOTAM production and dissemination are handled by the SIA at Bordeaux-Mérignac. The instrument flight procedures (IFP) for the Guianese aerodromes are designed and maintained by the Bureau des Procédures du SIA (BPS) of the SIA at Bordeaux, and a planning and development office at the SNA-AG headquarters in Martinique supports the regional engineering and operational studies for all three sites. CACAO, GNSS approaches and the satellite communication networks already deployed at Cayenne illustrate the centre's reliance on satellite-based means to overcome the limited ground infrastructure of this vast and largely oceanic and equatorial-forest environment.

3. Key Challenges and Opportunities

3.1 The principal limitations relate to the dependence on cross-border coordination within the Piarco FIR. Surveillance coverage over the oceanic portions of the region remains a challenge, and the telecommunications links supporting radar data exchange between Piarco and the French sensors have required ongoing resolution. The absence, until recently, of a formalised delegation of service between the Piarco RCC and the French ARSC/MRCC has been identified as a gap in SAR readiness. The high incidence of "overdue aircraft" cases in the Piarco FIR, often associated with low-flying VFR or general-aviation flights over oceanic areas, places additional demands on ATS and SAR resources shared across the sub-region.

3.2 The main challenge is to sustain effective, harmonised coordination across the multiple States and Territories that share the Piarco FIR, while ensuring compliance with ICAO Annex 11 and Annex 12 requirements. Key opportunities include: the conclusion of formal delegation between the Piarco RCC and the French ARSC/MRCC; continued participation in the regional Radar Data Sharing project to extend and consolidate surveillance coverage; the possibility for France to receive ADS-B data from neighbouring States through the E/CAR network in order to enrich its own surveillance picture, particularly in areas where radar coverage is limited or during radar outages and maintenance; including those experiencing radio-communication failure; and continued regional SAR cooperation, building on the SAREX Pelican exercises and the E/CAR/CATG/SAR Committee coordination mechanisms.

3.3 In French Guiana, the principal challenge is to ensure adequate surveillance across a very large airspace with limited ground radar infrastructure, much of it oceanic or over dense equatorial forest, where coverage from the single military radar at Kourou cannot extend to all isolated aerodromes. Sustaining the oceanic en-route service relies heavily on satellite-based means (ADS-C/CPDLC via CACAO and satellite ground-ground links), with HF voice retained only as a back-up and as the primary means for non-equipped aircraft, which significantly increases controller workload. Key opportunities include: the progressive introduction of an ADS-B Out carriage mandate in the Cayenne FIR/UIR to improve cooperative surveillance and aircraft equipage; building on the network of five ground ADS-B stations

operational across French Guiana, which delivers a TIER 3 (flight information and alerting) service, the integration of space-based ADS-B into the ATM system to extend surveillance over the oceanic and remote portions of the airspace and to improve the location of aircraft, including those experiencing radio-communication failure; and the modernisation of the oceanic control tools under the SEAFLIGHT programme. These developments are coordinated with adjacent centres (notably within the Amazonica, Paramaribo, Atlantico, Piarco and Dakar Oceanic FIRs) and contribute to a more efficient and safer integration of French Guiana into the wider South-American and Caribbean surveillance and route network.

4. Projects to Enhance Air Navigation Services in the French West Indies (Guadeloupe and Martinique) and French Guiana

4.1 Ongoing and planned activities to enhance air navigation services in the French West Indies include: continued contribution of the Martinique and Guadeloupe radar sensors to the E/CAR Radar Data Sharing project, together with resolution of the associated telecommunications links for radar data delivery within the region; participation in the regional roll-out of space-based ADS-B to improve surveillance and the location of aircraft in distress; the establishment of a formal agreement between the Piarco RCC and the French ARSC/MRCC to consolidate SAR delegation arrangements; the conduct of regional search-and-rescue exercises (following SAREX Pelican 2025 in Martinique, which exercised Autonomous Distress Tracking and LADR dissemination, and the E/CAR/CATG table-top SAREX series); These activities are carried out by the SNA-AG within the DSNA framework and in coordination with the E/CAR/CATG and the ICAO NACC Regional Office.

4.2 In Guadeloupe, since 1 January 2026 the OC PTP has been able to provide ATC services on a H24, 7/7 basis, following almost three years during which air traffic control was closed at night owing to a staff shortage. The recruitment of new air traffic controllers (ATCOs) has been successful over the last two years and training is still ongoing.

4.3 Within the SNA-AG, Guadeloupe is pursuing a three-year technical modernisation plan, including the implementation of a new ATC system (Seaflight project), a new VHF radio chain, a redesign of telephony migrating to IP, the retrofit of its Mode S radar (completed in 2026) and the upgrade of its safety nets.

4.4 In French Guiana, the modernisation of air traffic surveillance has reached an important milestone with the commissioning, on 1 March 2020, of the network of five ground ADS-B stations described in Section 2.6, which now delivers a TIER 3 service (flight information and alerting) and extends cooperative surveillance up to some 200 NM off the coast. Building on this achievement, a structured programme of further developments has been defined for the Cayenne centre. The principal challenges and subsequent deployments are prioritised as follows:

- Priority 1: Commissioning of CACAO 4, the new-generation oceanic control tool of the SEAFLIGHT programme (electronic stripping, integrated continental and oceanic picture, conflict detection, decision-support and automated inter-centre coordination);
- Priority 2: Extension of the technical block and refurbishment of the technical premises;
- Priority 3: Implementation of RNAV 10 navigation in the oceanic control airspace;
- Priority 4: Commissioning of SIGMA LINUX.
- Priority 5: Improvement of VHF coverage across French Guiana;

Priority 6: Integration of space-based ADS-B into the ATM system to provide an ADS-B TIER 3 service over the oceanic and remote portions of the airspace, improving the location of aircraft, including those in distress or experiencing radio-communication failure;

Priority 7: Implementation of AIDC, also involving the other units of the SNA-AG;

Priority 8: Deployment of the APP/TWR functionalities of SEAFLIGHT.

In the medium term, further projects will be addressed, including the transition to ADS-B TIER 2 and subsequently TIER 1. These activities are carried out by the SNA-AG within the DSNA framework and in coordination with the adjacent FIRs, the E/CAR/CATG and the ICAO NACC and SAM Regional Offices.

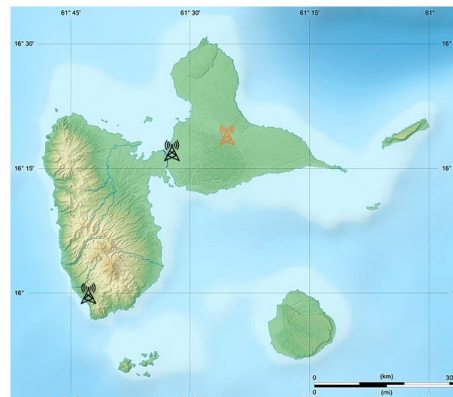
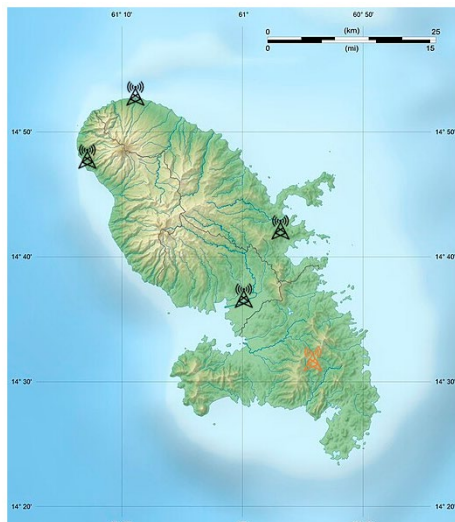
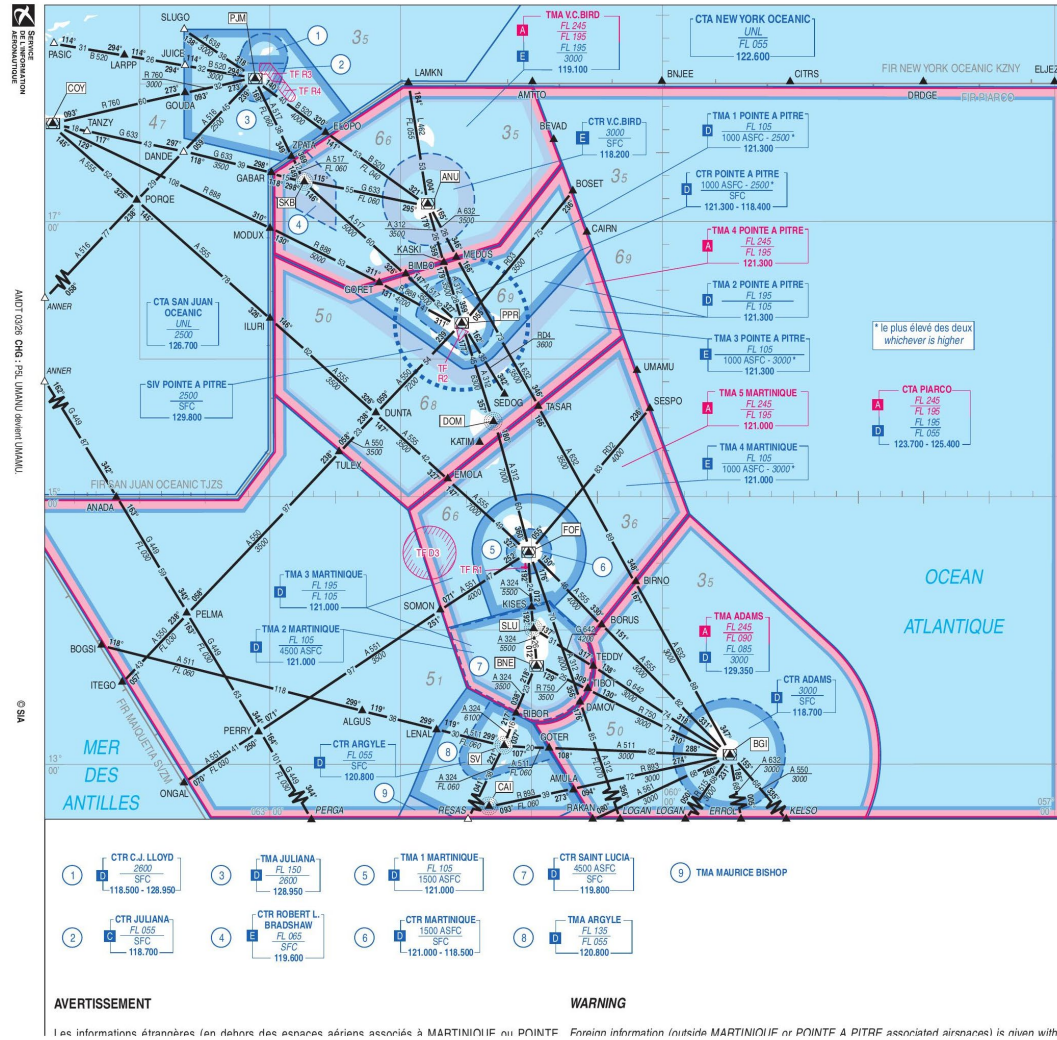
4.5 To underpin these developments, France is introducing a progressive ADS-B Out carriage mandate in the Cayenne FIR/UIR (SOOO), pursuant to the Ministerial Order of 5 July 2024 on CNS/ACAS equipment and a draft amendment introducing ADS-B requirements in the overseas territories. Aircraft will be required to carry ADS-B Out functionality using compliant 1090 MHz extended-squitter technology, complementing the Mode A/C and Mode S transponder obligations that remain applicable during the transition. The mandate applies to both IFR and VFR flights operating within the Cayenne FIR/UIR, with exemptions for certain public-interest operations (military and State aircraft, search-and-rescue, and civil-protection missions such as firefighting). The requirement is phased so as to allow operators to plan fleet retrofit while improving surveillance coverage in a region with limited radar infrastructure, as summarised below.

Date	IFR	VFR
Entry into force +1 day	ADS-B above FL245 (UIR)	Not applicable
1 June 2027	ADS-B in controlled airspace	ADS-B in controlled airspace
1 December 2028	ADS-B in entire FIR/UIR	ADS-B in entire FIR/UIR

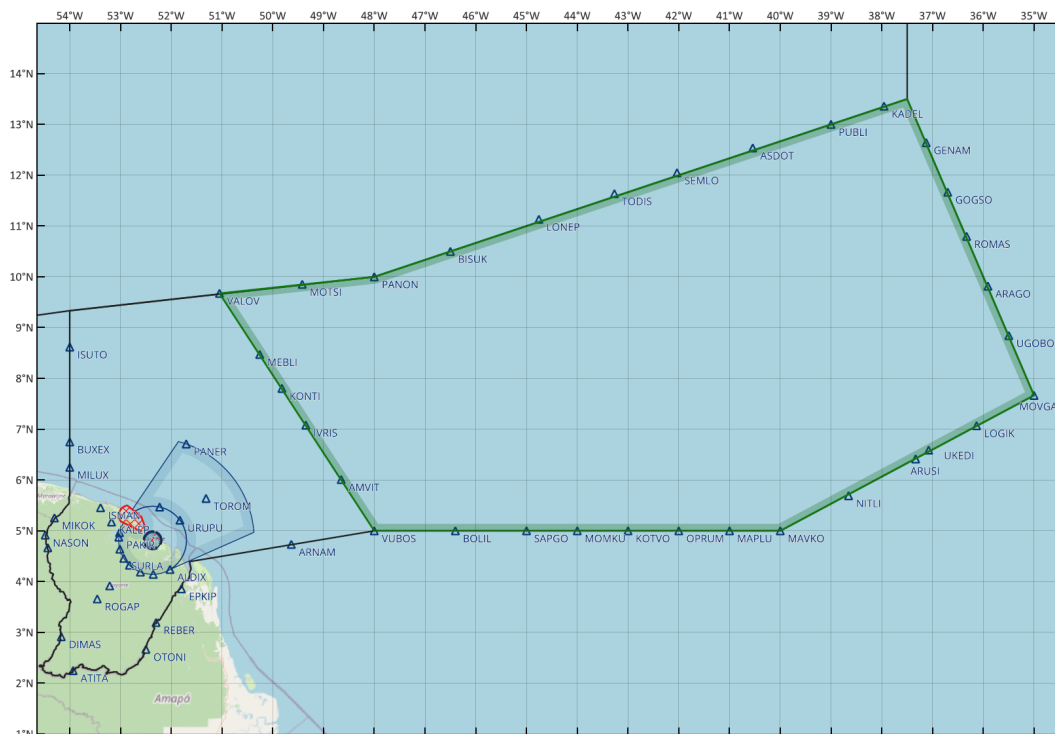
4.6 More broadly, the modernisation of the oceanic and continental control systems at Cayenne is conducted within the wider Conops of a satellite-based ADS-B mandate, which envisages a phased reduction of oceanic separation minima (down to 17/19 NM using space-based ADS-B, CPDLC/HF, RNP 4 and route-conformance monitoring) and enhanced surveillance tiers combining ground and space-based ADS-B in continental, TMA and SIV airspace. These developments will further integrate French Guiana into the regional CNS/ATM evolution and support seamless coordination with the SAM and CAR/NAM regions.

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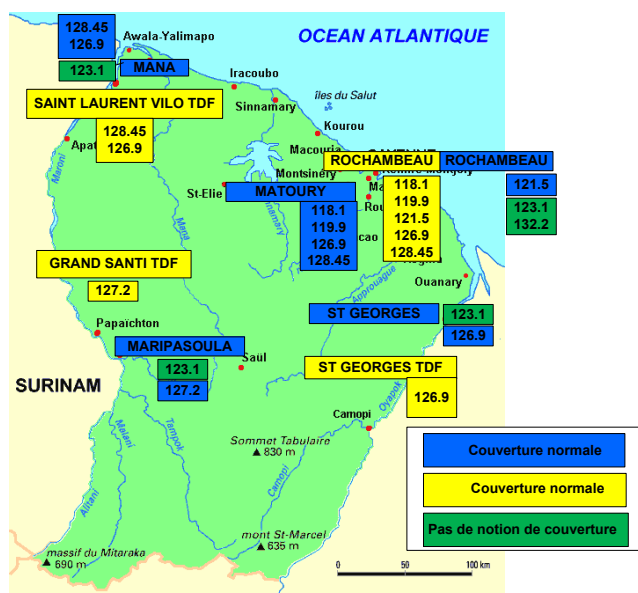
Annex 1 : French West Indies



Annex 2 : French Guiana



Cayenne FIR Area : 1 389 833 km²
(FIR France mainland Area : 995 959 km²)

**Communications:**

Continental area: VHF communications facilities
Oceanic area: HF communications facilities and/or
Datalink

Surveillance:

Continental area: military radar coverage from Kourou
and Sinnamary (Centaure and GM406) supplemented
by ground-based ADS-B stations
Oceanic area: ADS-C surveillance (position reports at
8-minute intervals)

Air Traffic Management Systems:

Aerodrome Control / Approach / Flight Information
Services: IRMA system (surveillance display) and SIGMA
system (flight data processing)
En-route: CACAO 4 system

Inter-centre communications (satellite-based):

Dakar FIR: AFISNET network
South America: REDDIG network