PIARCO
Flight Information Region

TTZP ALL–IN–ONE
STANDARD OPERATING PROCEDURES

VERSION 11.9.23

INTRODUCTION

This order provides direction and guidance for the day-to-day operations of all TMAs within the Piarco FIR & Piarco Area Control Centre (ACC). Air Traffic Control procedures and limited phraseology assistance is prescribed in this document. TTZP home and visiting controllers are required to be familiar with the provisions contained in this order. The Piarco FIR, VATCAR, VATNA, or VATSIM do **NOT** take any responsibility for use of this order outside of the simulated environment.

FIR MANAGEMENT

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Compiled by Piarco FIR Training Administrator

- Sammy J.

RECORD OF CHANGE

11.09.2023 – Added table of content page – Sammy J

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Flight Information Region

PIARCO TMA
STANDARD OPERATING PROCEDURES

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CHAPTER 1: GENERAL INFORMATION

1-1 AERODROME SPECIFICATIONS – PIARCO (TTPP)

AIRSPACE	CLASS D
ELEVATION	58 FT
LATERAL DIMENSION	5 NM
VERTICAL DIMENSION	SFC – 2000 FT AMSL
PATTERN ALTITUDE	1000 FT AGL
TRANSITION ALTITUDE	4100FT
STANDARD FLOW	EAST

ROBINSON (TTCP)

AIRSPACE (ATZ)	CLASS D
ELEVATION	38 FT
LATERAL DIMENSION	5 NM
VERTICAL DIMENSION	SFC – 2000 FT AMSL
PATTERN ALTITUDE	1000 FT AGL
TRANSITION ALTITUDE	4100 FT
STANDARD FLOW	EAST

1-2 OPERATIONAL POSITIONS

POSITION	IDENTIFIER	FREQUENCY
TTPP_R_GND	PIARCO APRON	121.750
TTPP_GND	PIARCO GROUND	121.900
TTCP_GND	ROBINSON GROUND	121.700
TTPP_TWR	PIARCO TOWER	118.100
TTCP_TWR	ROBINSON TOWER	118.400
TTPP_APP	PIARCO APPROACH	119.000
TTZP_CTR	PIARCO RADAR	123.700
TTPP_ATIS	ATIS	126.700
TTCP_ATIS	ATIS	132.200

1-3 BEACON CODES

AERODROME	TTPP	TTCP
DOMESTIC FLIGHTS	4201 – 4277	4401 – 4477
INT'L FLIGHTS	7201 – 7277	-
LOCAL/VFR FLIGHTS	5001 – 5077	0401 – 0477

CHAPTER 2: CLEARANCE DELIVERY

2-1 OVERVIEW

This chapter covers common pressures used within the Piarco TMA for Clearance Delivery procedures. In the Eastern Caribbean, ATC Clearances are given differently than in the USA and other countries. For flights in the Piarco FIR airspace requesting cruising levels above FL240, we need to coordinate with the Area Control Center (ACC) for startup clearance and requested flight level.

All clearance delivery procedures are handled by the Ground Controller. At Piarco & Robinson, ATC clearances are issued at the gate on request which is known as a Pre-Departure clearance. Due to the nature of the VATSIM network, errors in the flight plans are common, so controllers should verify that flight plans are without discrepancies and ensure the pilot has the current weather/ATIS information.

2-2 VFR DEPARTURES

All VFR traffic within Piarco TMA is REQUIRED to have a flight plan. If the pilot does not file one, you are responsible for creating it. At minimum, it should include the **aircraft type, departure airport, destination airport and cruise altitude**.

VFR Phraseology example:

N129SJ: Piarco Ground, N129SJ, ready for startup and clearance to Robinson.

TTPP_GND: N129SJ, cleared to Robinson, via VFR direct, Climb to 3500, squawk 5062.

(Pilot Readback)

TTPP_GND: N129SJ, ATC clearance is correct, startup approved, runway 10 in use, QNH 1017, advise when ready to taxi.

Local Traffic:

(After startup)

9Y-SJT: Piarco ground, 9Y-SJT, information BRAVO, request taxi for pattern work.

TTPP_GND: 9Y-SJT, Piarco ground, taxi to holding point B3 via B.

2-3 IFR DEPARTURES

While issuing IFR clearance, do your best to ensure that all IFR departures comply with preferred routing. If a pilot reports unable, make adjustments as necessary. Coordinate any special requests with Piarco Approach.

All IFR departures must be given clearance with the following information:

[CALLSIGN] [CLEARANCE LIMIT] [ROUTE] [INITIAL/FINAL FLIGHT LEVEL] [SQUAWK CODE]

IFR departures shall be instructed to maintain FL070 initially unless requested lower.

Optional: You can also give instructions to maintain runway heading until specified altitude before turning on course in the ATC clearance. This is particularly useful to guide pilots in the absence of further ATC.

Phraseology example:

AJT8210: Piarco ground, AJT8210 ready to copy IFR to Miami.

TTPP_GND: AJT8210 cleared to Miami via PERRY, then as filed. After departure maintain runway heading until 4100 feet, Climb to FL070, squawk 7210.

(Pilot Readback)

TTPP_GND: AJT8210, readback correct, runway 10 is in use, QNH 1016, advise when ready for push and start.

Another example:

TTPP_GND: Piarco control clears BWA1512 to Robinson via the R515, flight planned route. Climb and maintain FL070, squawk 4436.

CHAPTER 3: GROUND CONTROL

3-1 OVERVIEW

Piarco & Robinson ground are responsible for ATC clearances, airside movement areas and taxiways. The transfer of control point between ground and local controllers will be when the aircraft is at its assigned holding point, when the ground controller no longer needs to provide any further instructions to the aircraft or when the aircraft vacates the runway.

Piarco ramp/apron control is responsible for airside movements for aircraft at the north terminal & apron only. The transfer of control point between Piarco apron & Piarco ground will be after aircraft receives ATC clearance from the ground controller and at holding points W & Z. This position may only be opened if TTPP_GND or higher-rated ATC is online.

3-2 GROUND MOVEMENT

In the East Caribbean, the wind favors east operations at most times so therefore runway 10 is used as the default runway at Piarco to sequence departing and arriving traffic.

At Piarco, the north terminal & apron accommodates domestic & international passenger flights while general aviation, helicopter and cargo flights park at the south terminal & apron.

Departures parked at the north of the airport shall taxi to runway 10 (HP B3) via A, A1, B1, B, and cross runway 10, however pilots may request intersection departure from A1 and departures parked at the south terminal & apron shall taxi to holding point B3 via B and you may allow intersection B1 departures if requested.

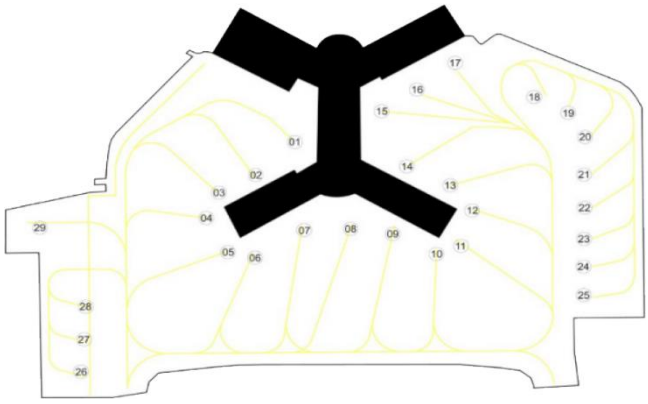
At Robinson, runway 11 is used as the default runway to sequence departures & arrivals.

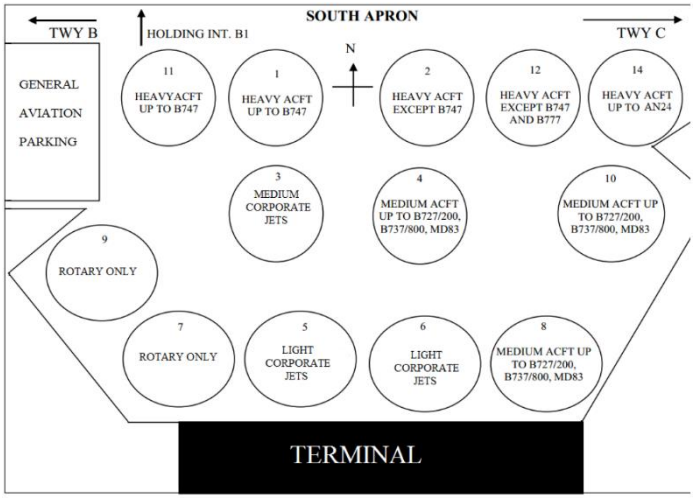
Phraseology example:

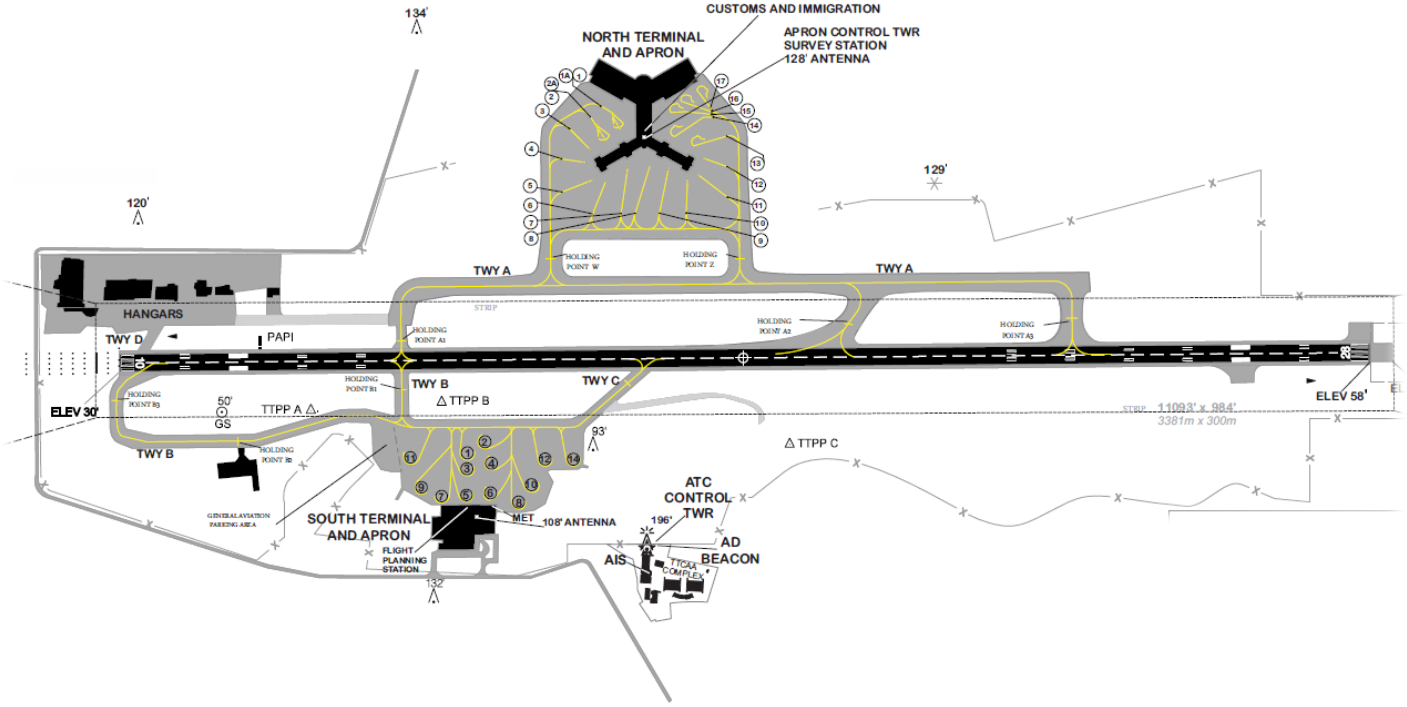
LIA311: Piarco ground, LIA311, ready to taxi.

TTPP_GND: LIA311, taxi to holding point A1, runway 10, via W and A.

Ground Diagrams for Piarco Int'l



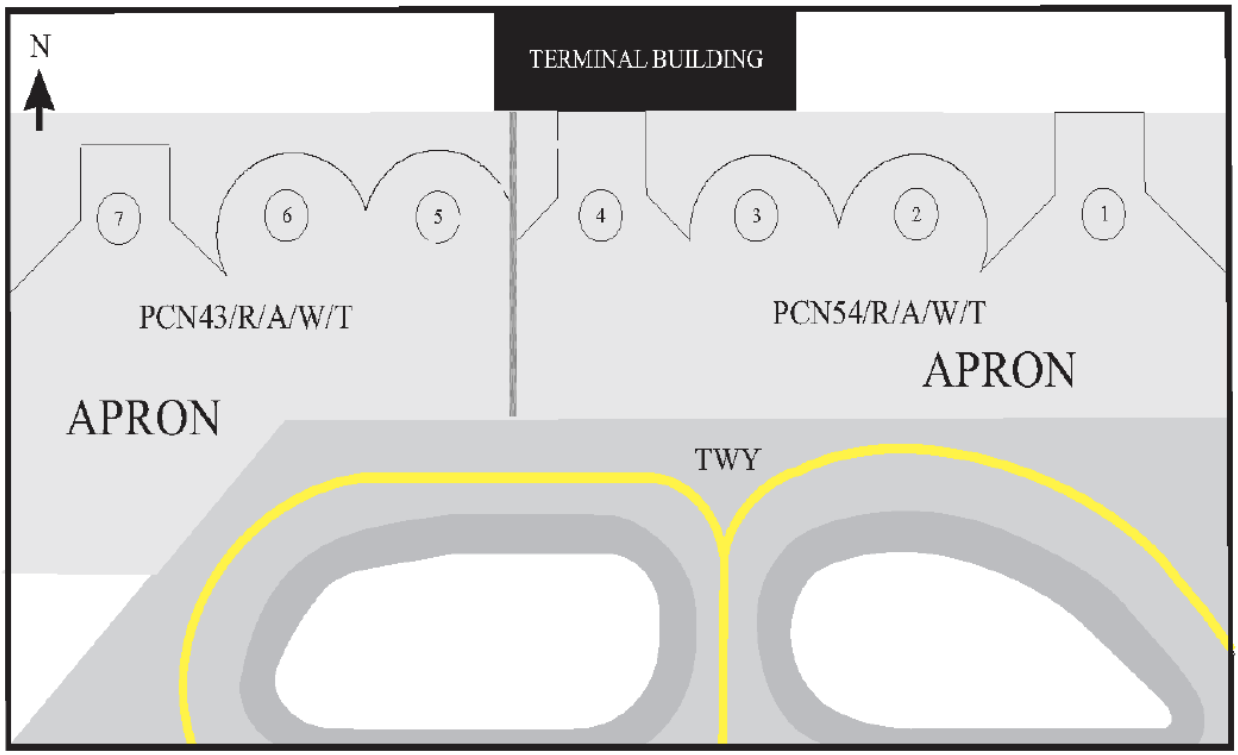


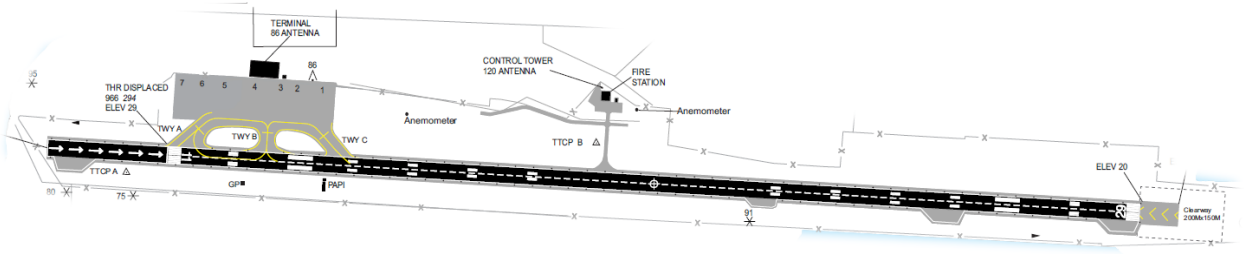


Piarco North Apron

GATE NUMBER	CAPACITY
N1	Can accommodate MD80, A320, B727, B737, B757, ATR72
N2	Can accommodate MD80, A320, B727, B737, B757, ATR72
N3	Can accommodate MD80, B757, A300, B767-400, MD11, ATR72
N4	Can accommodate A320, B727, B737, B757
N5	Can accommodate B757, B767-300, B767-400, A300, A330, B777, B747-400, ATR72
N6	Can accommodate MD80, B737, A300, B767-300, ATR72
N7	Can accommodate MD80, B737, B757, A300, B767-300, ATR72
N8	Can accommodate MD80, B737, B757, CRJ, ATR72
N9	Can accommodate MD80, B757, A300, B767-300, ATR72
N10	Can accommodate MD80, A300, B767-300, ATR72
N11	Can accommodate B757, A300, B767-300, B767-400, B777, B747-400, B737, ATR72
N12	Can accommodate B737, B757
N13	Can accommodate DHC8, MD80, A320, B727, B737, B757, A300, B767-300, B767-400, ATR72
N14	Can accommodate DHC8, MD80, B737, B757, A300, B767-300, ATR72
N15	Can accommodate B737 and commuter aircraft up to and including ATR72
N16	Can accommodate commuter aircraft up to and including ATR72
N17	Can accommodate commuter aircraft up to and including ATR72
N18-24	Can accommodate aircraft of wingspan and length up to and including ATR72
N25-28	Can accommodate aircraft of wingspan and length up to and including B737
N29	Can accommodate aircraft of wingspan and length up to and including B767-300

Ground diagrams for Robinson Int'l





CHAPTER 4: AERODROME CONTROL

4-1 OVERVIEW

Piarco Tower is responsible for the active runways and traffic operating within Piarco ATZ (Aerodrome traffic zone). On VATSIM, you control top-down when Ground is offline.

Robinson Tower is responsible for the active runways and traffic operating within Robinson ATZ.

The transfer of control point between local and approach controllers will be after reporting the aircraft airborne or when the aircraft is given entry instructions into the aerodromes airspace or when the aircraft is established on a standard instrument approach procedure.

4-2 VFR TRAFFIC

Piarco VFR departures shall remain well clear of the final approach path to runway 10 unless specifically authorized by ATC.

Circling to land north of TTCP is not authorized. RWY 11 right hand traffic pattern is preferred.

4-3 DEPARTURE PROCEDURES

IFR departures shall be instructed to maintain runway heading after departure until a specified altitude before making their turn on course due to surrounding terrain and minimum vectoring altitudes.

Runway 10 NORTHBOUND (to intercept northbound routes UG449, G449, UA324, A324, UL205, UR515, R515) shall maintain runway heading (105°) to 4100ft before turning left on course.

Runway 10 SOUTHBOUND (to intercept southbound routes UG449, G449, UA324, A324, UA562, A562, UA552, A552, UA563, A563) shall maintain runway heading (105°) to 2200ft before turning right on course.

Runway 28 NORTHBOUND shall maintain runway heading (285°) to 4100ft before turning right on course.

Runway 28 SOUTHBOUND shall maintain runway heading (285°) to 2200ft before turning left on course.

4-4 UNPUBLISHED PROCEDURES

This section is for the special handling of aircraft without charts onboard. If a pilot reports missed, the aircraft should be instructed to “execute published missed approach”. If the pilot reports unable or no charts onboard, instruct the aircraft as prescribed.

Aircraft should be instructed to climb to 2000 FT and fly runway heading. Contact Piarco Approach for resequencing.

4-5 RUNWAY SELECTION

Runway selection will be determined based on the current and forecasted weather, runway availability and the current forecasted traffic volume. Runway 28 is the calm wind runway at Piarco & runway 29 is the calm wind runway at Robinson.

CHAPTER 5: PIARCO APPROACH

5-1 OVERVIEW

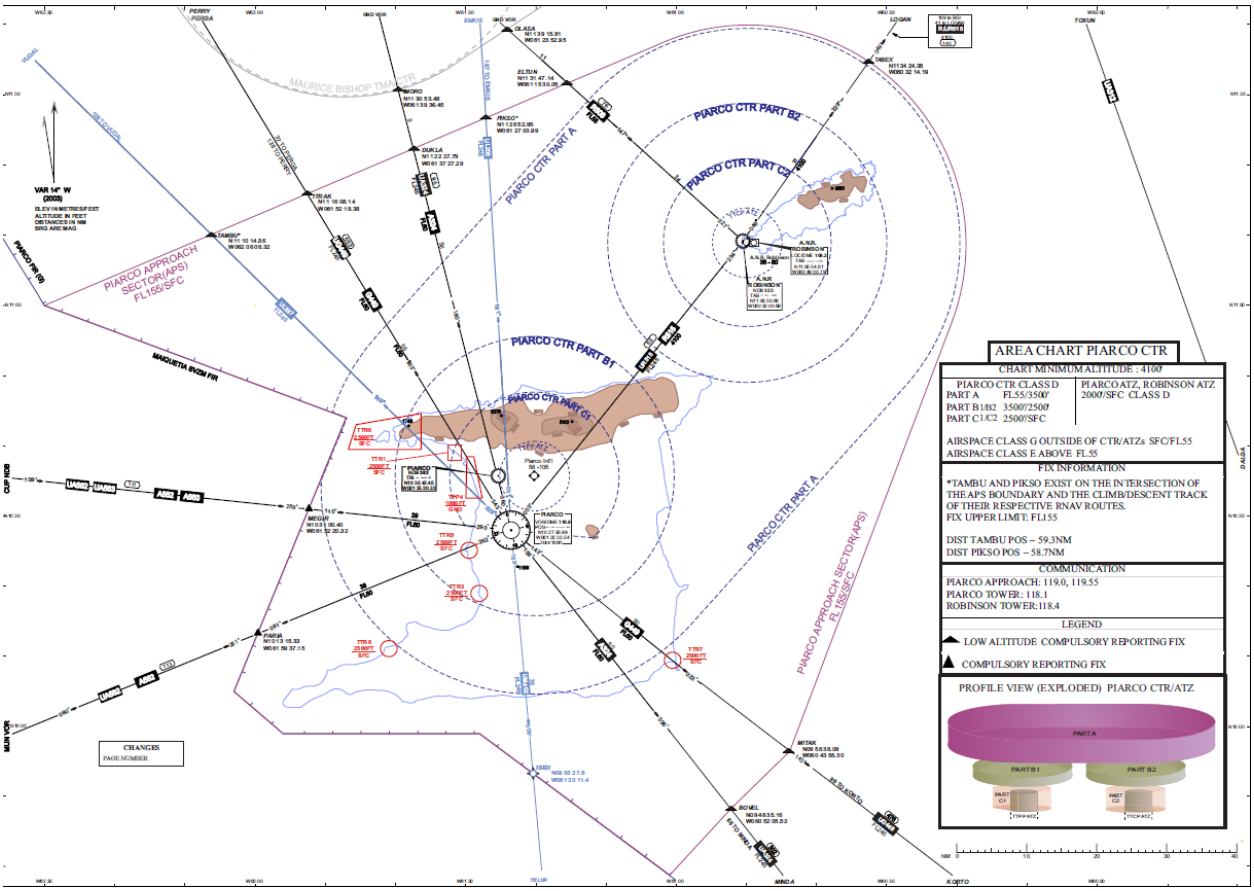
This chapter covers common pressures used within Piarco TMA at the approach level.

The transfer of control point between the approach and center controllers will be (departures) reaching FL150 and/or at the lateral boundaries of the TMA or (arrivals) reaching FL160 and/or at the lateral boundaries of Piarco TMA.

5-2 SEPARATION MINIMA

Aircraft shall maintain a separation minimum of 5NM within the Piarco TMA.

5-3 AIRSPACE DIMENSIONS



5-4 DEPARTURES

TTPP does not have any Standard Instrument Departures (SID). All departures are to be cleared to a fix within Piarco TMA boundary, or given radar vectors to intercept an airway/radial/track. If a pilot files a route that begins outside of the Piarco TMA, it is to be coordinated with TTZP_CTR or adjacent control facility.

Phraseology example:

TTPP_APP: DAE1322, radar contact passing 4500ft, turn left direct TABEX, climb to FL150.

5-5 ARRIVALS

TTPP does not have any Standard Terminal Arrival Routes (STAR). All arrivals will be provided with radar vectors as necessary or cleared to one of the Initial Approach Fixes (IAF) or Intermediate Fix (IF).

The Minimum Vectoring Altitudes (MVA) within the Piarco approach sector is 4100FT north of TTPP, 2200ft south of TTPP and 3000ft over the island of Tobago (TTCP). These altitudes are indicated on your sector file.

PIARCO
Flight Information Region

ADAMS TMA
STANDARD OPERATING PROCEDURES

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CHAPTER 1: GENERAL INFORMATION

1-1 AIRPORT SPECIFICATIONS – GRANTLEY ADAMS (TBPB)

AIRSPACE (ATZ)	CLASS D
ELEVATION	169 FT
LATERAL DIMENSION	SFC – 2000 AAL
VERTICAL DIMENSION	5NM
PATTERN ALTITUDE	1000 FT AGL
TRANSITION ALTITUDE	3000 FT
STANDARD FLOW	EAST

1-2 OPERATIONAL POSITIONS

POSITION	IDENTIFIER	FREQUENCY
TBPB_GND	ADAMS GROUND	121.900
TBPB_TWR	ADAMS TOWER	118.700
TBPB_APP	ADAMS APPROACH	129.350

1-3 BEACON CODES

DOMESTIC FLIGHTS	1701 – 1777
INT'L FLIGHTS	2701 – 2777
LOCAL/VFR FLIGHTS	1001 – 1077

CHAPTER 2: CLEARANCE DELIVERY

2-1 OVERVIEW

For flights in the Piarco FIR airspace requesting cruising levels above FL240, we need to coordinate with the Area Control Center (ACC) for startup clearance and requested flight level.

All clearance delivery procedures are handled by the Ground Controller. At Adams, ATC clearances are normally issued during taxi to the active runway, but can also be given any time after the pilot has been issued startup clearance. Due to the nature of the VATSIM network, errors in the flight plans are common, so controllers should verify that flight plans are without discrepancies and the pilot has the current weather/ATIS information.

2-2 VFR DEPARTURES

All VFR traffic at Adams is REQUIRED to have a flight plan. If the pilot does not file one, you are responsible for creating it. At minimum, it should include the **aircraft type, departure airport, destination airport and cruise altitude**.

VFR flights in Adams airspace are not permitted above FL085.

VFR Phraseology example:

TBPB_GND: SVD616, copy ATC Clearance.

(Pilot Acknowledges)

TBPB_GND: Adams control clears SVG616 to Mustique direct, maintain FL065, right turn after departure, squawk 1062.

(Pilot Readback)

TBPB_GND: SVD616, ATC clearance is correct, contact Adams tower on 118.700.

VFR Phraseology example 2:

IF HIGHER THAN FL085 REQUESTED

TBPB_GND: Adams control clears 8P-EAL to Piarco, while in Adams airspace maintain FL085 or below, right turn after departure, squawk 1063.

(Pilot Readback)

TBPB_GND: 8P-EAL, ATC clearance is correct, contact Adams tower on 118.700.

Local Traffic:

8P-JOY: Adams ground, 8P-JOY, information BRAVO, request taxi for pattern work.

TBPB_GND: 8P-JOY, Adams ground, taxi to the holding point on taxiway J, squawk 1004.

2-3 IFR DEPARTURES

While issuing IFR clearance, do your best to ensure that all IFR departures comply with preferred routing. If a pilot reports unable, make adjustments as necessary. Coordinate any special requests with Adams Approach.

All IFR departures must be given clearance with the following information:

[CALLSIGN] [CLEARANCE LIMIT] [ROUTE] [INITIAL/FINAL FLIGHT LEVEL] [SQUAWK CODE]

Phraseology example:

TBPB_GND: AAL1089, Copy ATC Clearance.

(Pilot Acknowledges)

TBPB_GND: AAL1089, cleared to Miami via the UA555 ILURI, then as filed. Climb to FL360, squawk 2763.

(Pilot Readback)

TBPB_GND: AAL1089, readback correct.

Another example:

TBPB_GND: Adams control clears BWA420 to V.C Bird via BORUS, flight planned route. Maintain FL240, squawk 1720.

CHAPTER 3: GROUND CONTROL

3-1 OVERVIEW

Adams ground is responsible for all airside movement areas and taxiways. The transfer of control point between ground and local controllers will be when the aircraft is at its assigned holding point, when the ground controller no longer needs to provide any further instructions to the aircraft or when the aircraft vacates the runway.

3-2 STARTUP CLEARANCE

Once a pilot's flight plan is sufficient, assign the appropriate squawk code and issue startup clearance as necessary.

If you get requests for IFR clearance at the gate, just inform the pilot that they will be given clearance during taxi and issue startup clearance as necessary.

Phraseology example:

BAW254: Adams ground, BAW254, Stand 15, information D on board, request push and start.

TBPB_GND: BAW254, Adams ground, push and start approved, time 26, advise when ready to taxi.

Another example:

LIA311: Adams ground, LIA311, ready for startup.

TBPB_GND: LIA311, Adams ground, startup approved, time 10, runway 09 is in use, QNH 1017. Advise when ready to taxi.

3-3 GROUND MOVEMENT

In the East Caribbean the winds favor east operations at most times so therefore runway 09 is used as the default runway at Adams to sequence departing and arriving traffic.

Departures parked at the north of the airport will use taxiway A for taxi to runways 09 & 27.

Departure parked at the south GA ramp will taxi to J or K and back taxi on the runway if necessary.

For light and small aircraft, holding point C may be used for departure if requested. Medium, large and heavy aircraft will often take holding point B.

Arriving aircraft landing runway 09 will vacate at either E, F, G.

Arriving aircraft landing runway 27 with vacate at either D, C, A.

Phraseology example:

LIA311: Adams ground, LIA311, ready for taxi.

TBPB_GND: LIA311, taxi via A to holding point C, runway 09.

CHAPTER 4: AERODROME CONTROL

4-1 OVERVIEW

Adams Tower is responsible for the active runways and traffic operating within the Adams ATZ & CTR. On VATSIM, you control top-down when Ground is offline.

The transfer of control point between local and approach controllers will be after reporting the aircraft airborne or when the aircraft is given entry instructions into the aerodromes airspace or when the aircraft is established on a standard instrument approach procedure.

4-2 VFR TRAFFIC

It is preferred that whenever possible all VFR patterns be configured for Runway 09 with a right traffic pattern to avoid aircraft flying over land.

At Adams we use “report abeam the tower” when aircraft are on the left downwind. This is done because of where the control tower is situated and the position in which the tower controller sits does not offer a full view of traffic on a left downwind.

In the event that you have traffic departing the circuit to fly around the island and there is other aircraft that is likely to be a factor, Adams tower will give advisory as necessary and have them looking out for each other.

Phraseology example:

TBPB_TWR: 8P-JOY, leave the traffic circuit, monitor this frequency.

4-3 DEPARTURE PROCEDURE

Aircraft departing TBPB shall be instructed to make a left or right turn after departure depending on their direction of flight. However, if Adams approach is online an initial heading can be coordinated.

Phraseology example:

TBPB_TWR: IWY205, left turn after departure, cleared for takeoff runway 09, surface wind 090@08.

4-4 UNPUBLISHED PROCEDURES

This section is for the special handling of aircraft without charts onboard. If an aircraft reports missed, the aircraft should be instructed to “execute published missed approach”. If the pilot reports unable or no charts onboard, instruct the aircraft as prescribed.

Aircraft should be instructed to climb to 3000FT and fly runway heading. Contact Adams departure for resequencing.

4-5 RUNWAY SELECTION

Runway selection will be determined based on the current and forecasted weather, runway availability and the current forecasted traffic volume. Runway 27 is the calm wind runway at Grantley Adams.

ADAMS CONTROL ZONE	
AIRSPACE	**VERTICAL LIMIT**
CLASS D	SFC – 3000 FT
ADAMS TERMINAL CONTROL AREA	
CLASS D	3000 FT – FL085
CLASS A	FL085 – FL245

4-6 NOISE ABATEMENT

LOCAL TIME + 4 HOURS = UTC(Z)

AIRCRAFT ARRIVING RWY 09/27

All IFR aircraft shall maintain an altitude of 900 m (3,000 ft) until established on an instrument let-down procedure.

Jet aircraft and propeller driven aircraft in excess of 5,700 kg VFR and on a visual approach shall:

a) Maintain a minimum flight altitude of 900 m (3,000 ft) while flying over the island.

b) Not be less than 5 NM from the shoreline if operating below 900 m (3,000 ft).

c) Intercept the localizer not closer than 5 NM if approaching from the south.

AIRCRAFT DEPARTING RWY 09/27 NORTHBOUND

Prior to initiating northbound turns for departures on RWY 09/27:

a) Jet aircraft shall climb to 750 m (2,500 ft) or proceed to 7 NM, whichever comes first, and continue climbing at best possible rate of climb.

b) Quad turboprop aircraft shall climb to 600 m (2,000 ft) or proceed to 5 NM, whichever comes first, and continue climbing at best possible rate of climb.

c) Propeller driven aircraft in excess of 5,700 kg shall climb to 450 m (1,500 ft) and continue climbing at best possible rate of climb.

d) All other propeller driven aircraft shall climb to 300 m (1,000 ft) and continue normal climbing.

AIRCRAFT DEPARTING RWY 09/27 SOUTHBOUND

Prior to initiating southbound turns for departures on RWY 09/27:

a) Jet aircraft shall climb to 600 m (2,000 ft) or proceed to 3 NM, whichever comes first, and continue normal climbing.

b) Quad turboprop aircraft shall climb to 450 m (1,500 ft) or proceed to 3 NM, whichever comes first, and continue normal climbing.

c) All other propeller driven aircraft shall climb to 300 m (1,000 ft) or proceed to 3 NM, whichever comes first, and continue normal climbing.

Runway 27 departures will not normally be permitted between 0200 UTC and 1000 UTC unless meteorological conditions dictate otherwise.

CHAPTER 5: ADAMS APPROACH

5-1 OVERVIEW

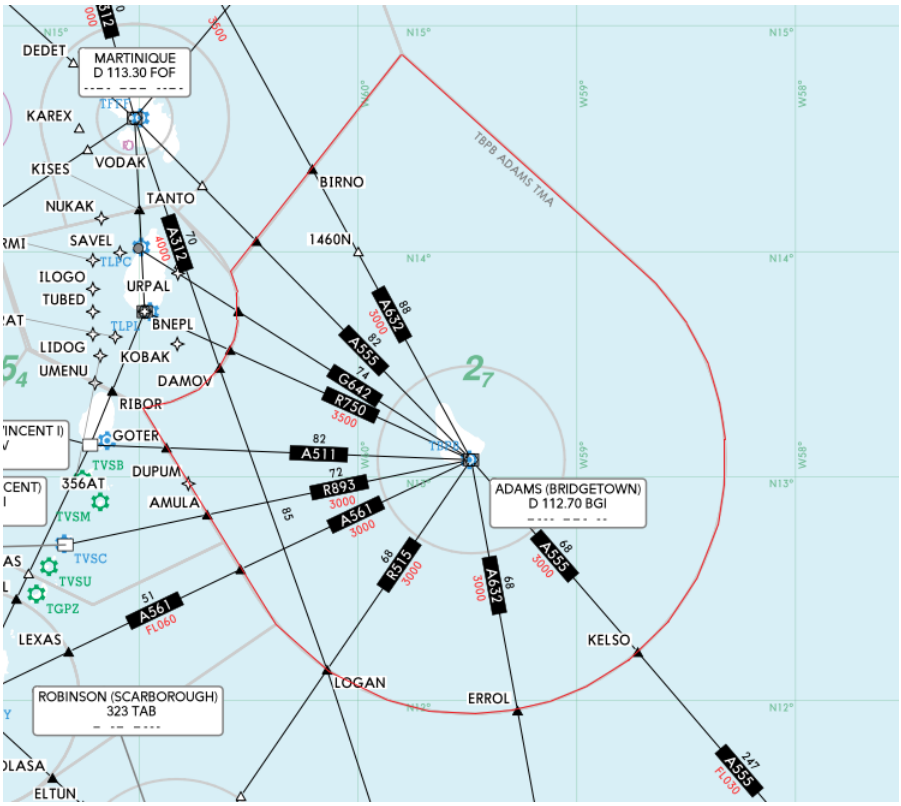
This chapter covers common pressures used within Adams TMA at the approach level.

The transfer of control point between the approach and center controllers will be (departures) reaching FL240 and/or at the lateral boundaries of the TMA or (arrivals) reaching FL250 and/or at the lateral boundaries of Adams TMA.

5-2 SEPARATION MINIMA

Aircraft shall maintain a separation minimum of 10NM within Adams TMA.

5-3 AIRSPACE DIMENSIONS



5-4 DEPARTURES

TBPB does not have any Standard Instrument Departures (SID). All departures are to be cleared to a fix within or on the Adams TMA boundary, or given radar vectors to intercept an airway/radial/track. If a pilot files a route that starts outside of the Adams TMA, it is to be coordinated with TTZP_CTR.

Phraseology example:

TBPB_APP: AAL1089, radar contact, turn left heading 280 to intercept the A555.

5-5 ARRIVALS

TBPB does not have any Standard Terminal Arrival Routes (STAR). All arrivals will be provided with radar vectors as necessary or cleared to one of the Initial Approach Fixes (IAF) or Intermediate Fix (IF). Remember that you cannot clear for the approach with an intercept angle greater than 90 degrees.

The Minimum Vectoring Altitude (MVA) for Adams approach is 3000FT over the island of Barbados.

5-6 COORDINATION

Adams TMA is responsible for coordination with 5 different facilities in the FIR which are TGPY_APP, TVSA_APP, TLPL_APP, TFFF_APP, and TTZP_CTR.

When coordinating traffic with non-radar facilities, you are required to inform the controller of the aircraft's estimated time/distance to cross the boundary and requested flight level prior to entering their airspace. For arrivals, the non-radar controller shall provide you with the same information then you can assign a squawk code for transit.

Coordination example:

TBPB_APP: Argyle APP, Adams.

TVSA_APP: Go ahead.

TBPB_APP: LIA311, airborne time 10, estimates GOTER at 1523Z, FL120.

TVSA_APP: Copy, and descent to 5000 approved if needed.

TBPB_APP: Thanks, SJ.

PIARCO
Flight Information Region

MARTINIQUE TMA

STANDARD OPERATING PROCEDURES

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CHAPTER 1: GENERAL INFORMATION

1-1 AERODROME SPECIFICATIONS – AIME CESARE (TFFF)

AIRSPACE	CLASS D
ELEVATION	16 FT
LATERAL DIMENSION	SFC – 1500 FT
VERTICAL DIMENSION	10 NM
PATTERN ALTITUDE	1000 FT AGL
TRANSITION ALTITUDE	9000 FT
STANDARD FLOW	EAST

1-2 OPERATIONAL POSITIONS

POSITION	IDENTIFIER	FREQUENCY
TFFF_GND	MARTINIQUE GROUND	121.900
TFFF_TWR	MARTINIQUE TOWER	118.500
TFFF_APP	MARTINIQUE APPROACH	121.000
TFFF_ATIS	ATIS	127.850

1-3 BEACON CODES

DOMESTIC FLIGHTS	1101 – 1177
INT'L FLIGHTS	6401 – 6477
LOCAL FLIGHTS	4001 – 4077

CHAPTER 2: CLEARANCE DELIVERY

2-1 OVERVIEW

For flights in the Piarco FIR airspace requesting cruising levels above FL240, we coordinate with the Area Control Center (ACC) for startup clearance and requested flight level.

All clearance delivery procedures are handled by the Ground Controller. At Martinique, ATC clearances are issued at the gate, before push back and startup.

2-2 VFR DEPARTURES

All VFR traffic within Martinique TMA is REQUIRED to have a flight plan. If the pilot does not file one, you are responsible for creating it. At minimum, it should include the **aircraft type, departure airport, destination airport and cruise altitude**.

VFR Phraseology example:

N129SJ: Martinique Ground, N129SJ, ready for startup and clearance to Hewanorra.

TFFF_GND: N129SJ, cleared to Hewanorra, Climb to 4500 ft, squawk 1162.

(Pilot Readback)

TFFF_GND: N129SJ, readback correct, startup approved, runway 10 in use, QNH 1017, advise when ready to taxi.

Special VFR Minimums (Day time only):

For aircraft the visibility must be in excess of 1500 M (1.5 KM) and for helicopters 800M (0.8 KM).

2-3 IFR DEPARTURES

When issuing IFR clearance, do your best to ensure that all IFR departures comply with preferred routing. If a pilot reports unable, make adjustments as necessary. Coordinate any special requests with Martinique Approach.

All IFR departures must be given clearance with the following information:

[CALLSIGN] [CLEARANCE LIMIT] [ROUTE] [INITIAL/FINAL FLIGHT LEVEL] [SQUAWK CODE]

Phraseology example:

FWI511: Martinique Ground, FWI511 ready to copy IFR to Orly.

TFFF_GND: FWI511 cleared to Paris-Orly via SESPO1R departure, then as filed. Climb to FL240 initially, squawk 6410.

(Pilot Readback)

TFFF_GND: FWI511, readback correct, runway 10 is in use, QNH 1016, advise when ready for push and start.

Another example:

TFFF_GND: Martinique control clears MTN7116 to George Charles via direct SLU, flight planned route. Climb to 4000 ft, squawk 1101.

2-4 STANDARD INSTRUMENT DEPARTURES

Although it is preferred to assign RNAV1 SIDs to departing IFR aircraft, it is not always required. Departures can also be cleared to a fix within the Martinique TMA boundary, or given radar vectors to intercept an airway/radial/track.

For connecting flights between TFFF & TFFR it is required for pilots to comply with a LIDOS RNAV1 SID and requested flight level in their flight plan should be an even level.

There are no published initial altitudes for TFFF SIDs.

MARTINIQUE RNAV SIDS			
RUNWAY	SID	DIRECTION	INITIAL CLIMB
10	BORUS [BORU1R]	SE	NO RESTRICTION
	DOM1R	N, NW	
	EMOLA [EMOL1R]	W, NW	
	KATIM [KATI1R]	NW	
	KISES [KISE1R]	S, SW	
	LIDOS [LIDO1R]	N, NW	
	SESPO [SESP1R]	NE	
	SOMON [SOMO1R]	SW	
28	BORUS [BORU1J]	SE	NO RESTRICTION
	DOM1J	N, NW	
	EMOLA [EMOL1J]	W, NW	
	KATIM [KATI1J]	NW	
	KISES [KISE1J]	S, SW	
	LIDOS [LIDO1J]	N, NW	
	SESPO [SESP1J] [SESP1S]	NE	
	SOMON [SOMO1J]	SW	
MARTINIQUE CONVENTIONAL SIDS			
10	BORUS [BORU5E]	SE	NO RESTRICTION
	DOM5E	N, NW	
	EMOLA [EMOL5E]	W, NW	
	LIDOS [LIDO5E]	N, NW	
	SESPO [SESP5E]	NE	
	SLU5E	S	
	SOMON [SOMO5E]	SW	

CONTINUED ON NEXT PAGE.

MARTINIQUE CONVENTIONAL SIDS PT.2			
RUNWAY	SID	DIRECTION	INITIAL CLIMB
28	BORUS [BORU5W]	SE	NO RESTRICTION
	DOM5N DOM5W	N, NW	
	EMOLA [EMOL5W]	W, NW	
	LIDOS [LIDO5N] [LIDO5W]	NW	
	SESPO [SESP5W]	S, SW	
	SLU5W	S	
	SOMON [SOMO5W]	SW	

CHAPTER 3: GROUND CONTROL

3-1 OVERVIEW

Martinique ground is responsible for ATC clearances, airside movement areas and taxiways. The transfer of control point between ground and local controllers will be when the aircraft is at its assigned holding point, when the ground controller no longer needs to provide any further instructions to the aircraft or when the aircraft vacates the runway.

3-3 GROUND MOVEMENT

Runway 10 is used as the default runway to sequence departing and arriving traffic at Martinique.

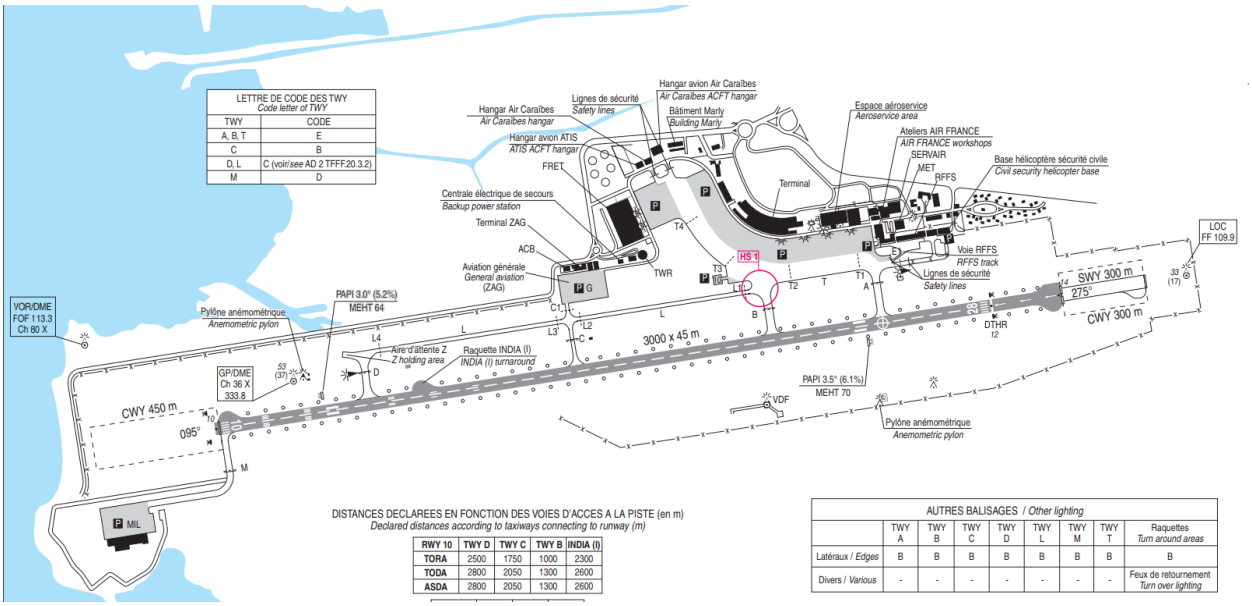
Taxiways L & D are prohibited to aircraft with wingspan greater than 28m (B737, B767, B777, A350 etc.). Such aircraft departing runway 10 shall taxi via B and backtrack.

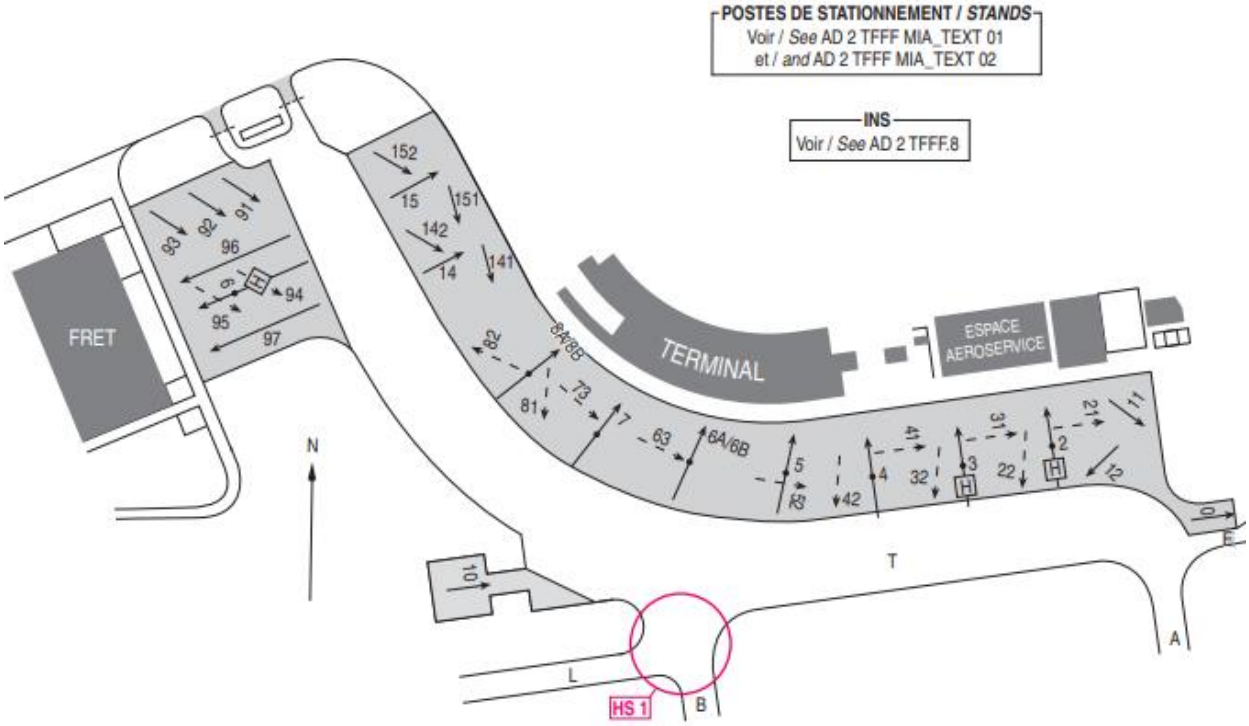
Phraseology example:

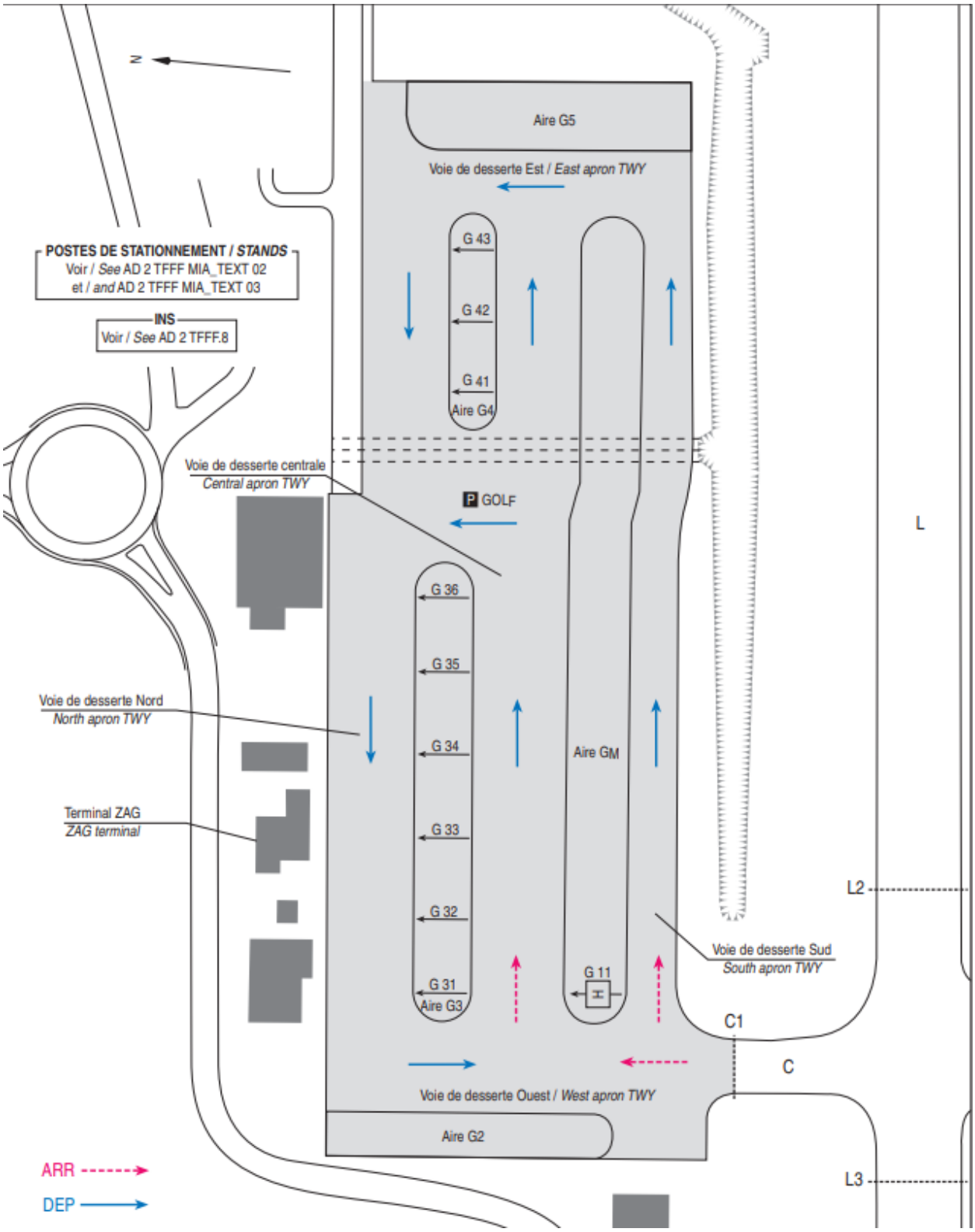
LIA311: Martinique ground, LIA311, ready to taxi.

TFFF_GND: LIA311, taxi via L to holding point D, runway 10.

Aime Cesaire/Martinique ground diagrams:




POSTES DE STATIONNEMENT / STANDS
Voir / See AD 2 TFFF MIA_TEXT 01
et / and AD 2 TFFF MIA_TEXT 02
INS
Voir / See AD 2 TFFF.8
FRET
TERMINAL
ESPACE AEROSERVICE
N
T
L
A
B
HS 1
HS Point chaud / Hot Spot
voir / see ADC 01
4 Position INS
INS Position
Aire de trafic
Apron
H Postes de stationnement hélicoptères
Helicopters parking stands


N
Aire G5
Voie de desserte Est / East apron TWY
G 43
G 42
G 41
Aire G4
POSTES DE STATIONNEMENT / STANDS
Voir / See AD 2 TFFF MIA_TEXT 02
et / and AD 2 TFFF MIA_TEXT 03
INS
Voir / See AD 2 TFFF.8
Voie de desserte centrale
Central apron TWY
P GOLF
L
G 36
G 35
G 34
G 33
G 32
G 31
Aire G3
Aire GM
G 11
H
Voie de desserte Nord
North apron TWY
Terminal ZAG
ZAG terminal
L2
Voie de desserte Sud
South apron TWY
C1
C
Voie de desserte Ouest / West apron TWY
Aire G2
L3
ARR
DEP

CHAPTER 4: AERODROMTE CONTROL

4-1 OVERVIEW

Martinique Tower is responsible for the active runways and traffic operating within Martinique CTR (Control zone). On VATSIM, you control top-down when Ground is offline.

The transfer of control point between aerodrome and approach controllers will be after reporting the aircraft airborne or when the aircraft is given entry instructions into the aerodromes airspace or when the aircraft is established on a standard instrument approach procedure.

4-2 VFR TRAFFIC

Preferred circuit pattern is the one South of RWY axis.

4-3 UNPUBLISHED PROCEDURES

This section is for the special handling of aircraft without charts onboard or will be conducting a go-around.

If a pilot reports missed, the aircraft should be instructed to “execute published missed approach”. If the pilot reports unable or no charts onboard, instruct the aircraft as prescribed.

Aircraft should be instructed to climb to 3000 feet and fly runway heading. Contact Martinique Approach for resequencing.

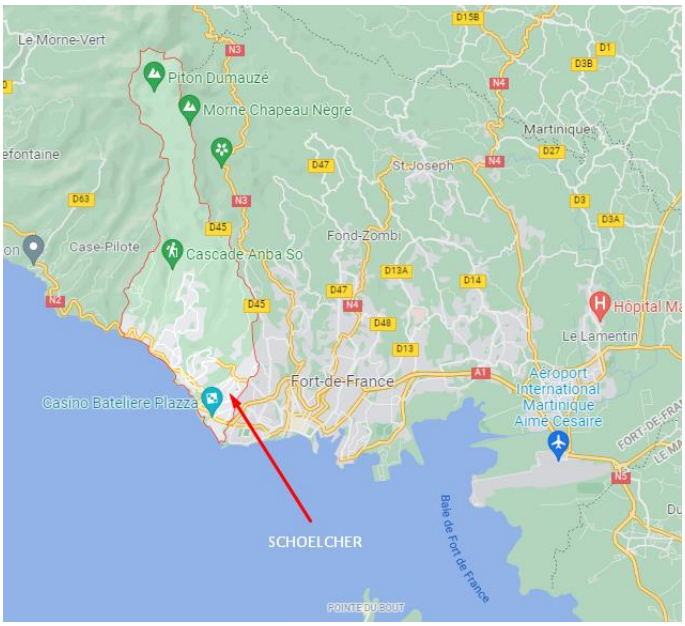
4-5 RUNWAY SELECTION

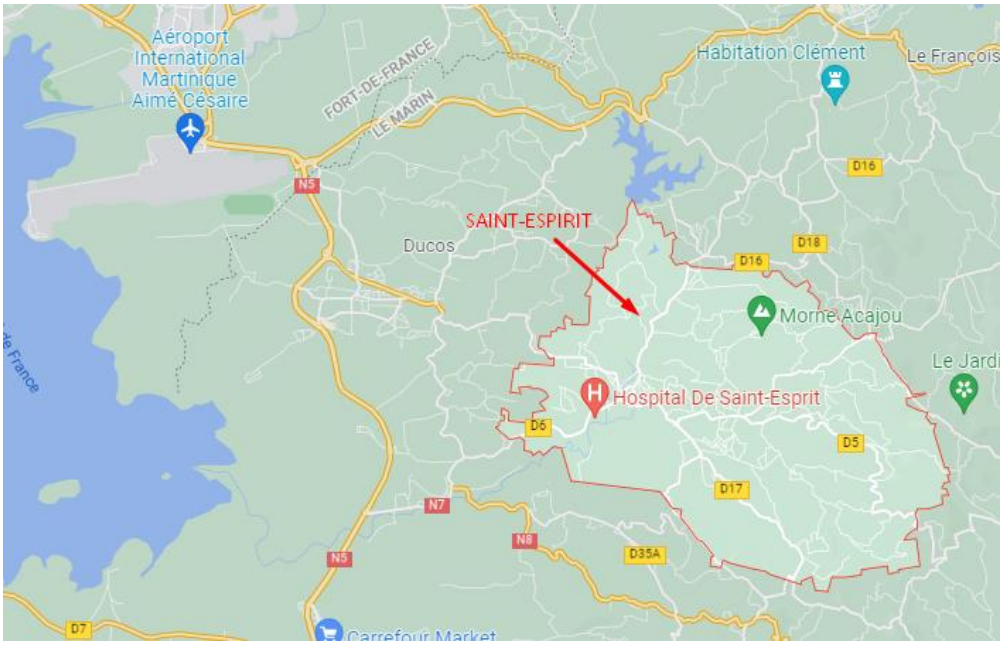
Runway selection will be determined based on the current and forecasted weather, runway availability and the current forecasted traffic volume. Runway 28 is the calm wind runway at Martinique.

4-5 NOISE ABATEMENT

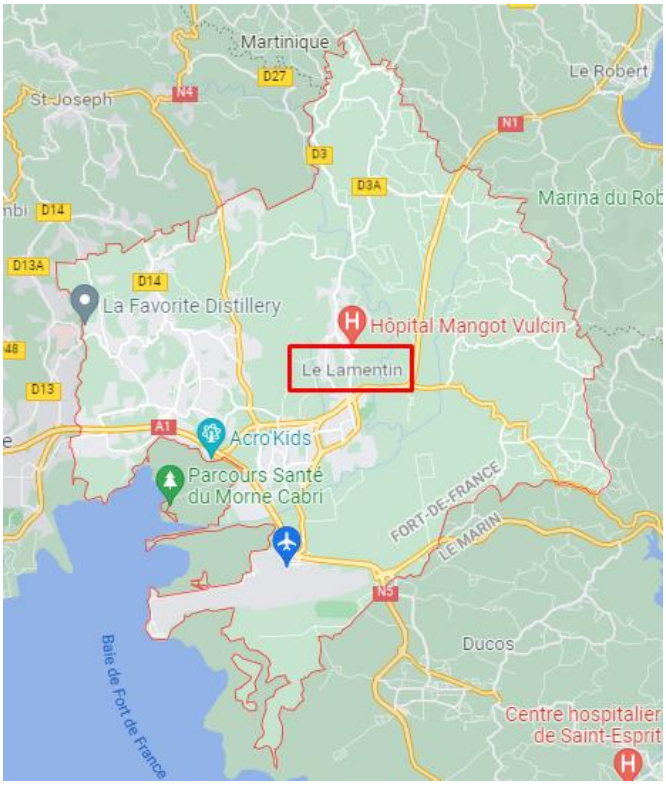
For all aircraft, avoid overflying Fort-de-France Schoelcher sector. Prohibited below 3000 feet.

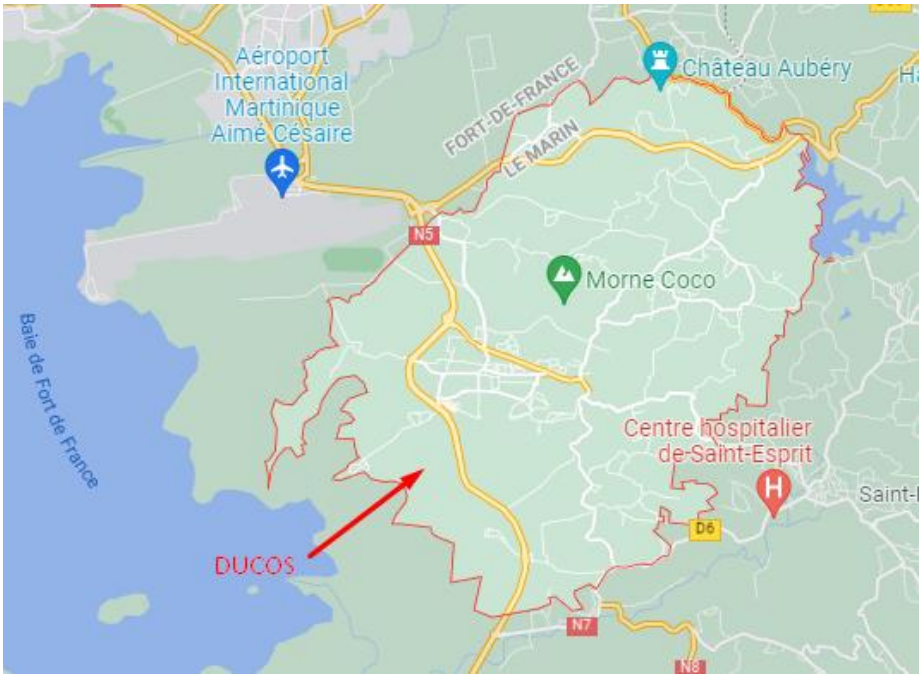
Overflying towns of Saint-Espirit, Ducos & Lamentin are prohibited below 1500 feet for single piston engine aircraft and 3000 feet for turbine aircraft.





4-5 NOISE ABATEMENT PT.2





CHAPTER 5: MARTINIQUE APPROACH

5-1 OVERVIEW

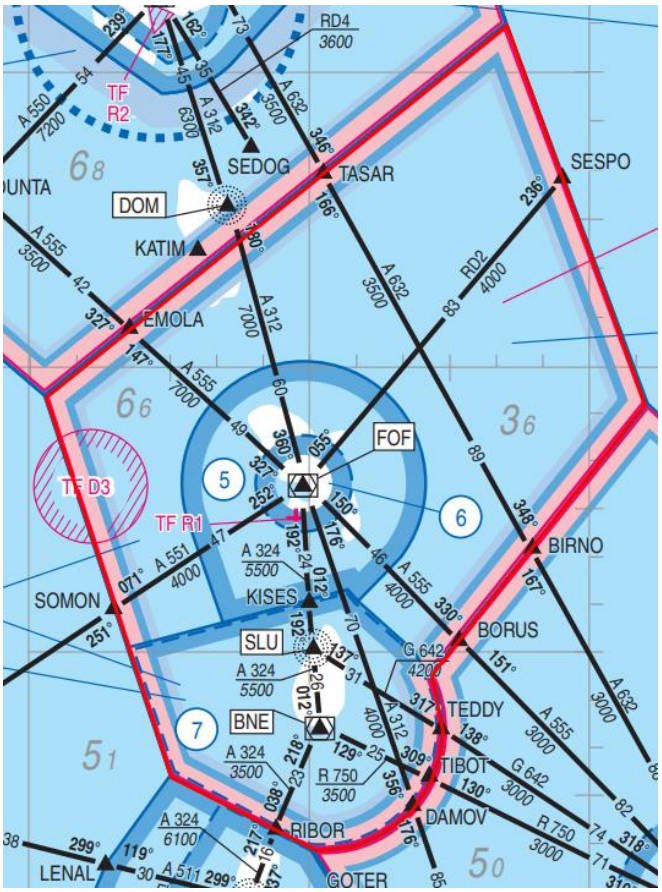
This chapter covers common pressures used within Martinique TMA at the approach level.

The transfer of control point between the approach and center controllers will be (departures) reaching FL240 and/or at the lateral boundaries of the TMA or (arrivals) reaching FL250 and/or at the lateral boundaries of Martinique TMA.

5-2 SEPARATION MINIMA

Aircraft shall maintain a separation minimum of 10NM within Martinique TMA.

5-3 AIRSPACE DIMENSIONS



5-3 AIRSPACE DIMENSIONS PT. 2

MARTINIQUE TERMINAL CONTROL AREA (ABOVE CTR)			
PARTITION	**CLASSIFICATION**	**VERTICAL DIMENSION**	**LATERAL DIMENSION**
PART 1	CLASS D	1500FT – FL105	25 NM RADIUS CENTERED ON FOF (NOT INCLUDING ST. LUCIA TMA)
PART 2	CLASS D	4500FT – FL105	25 NM RADIUS CENTERED ON BNE (INSIDE LATERAL BOUNDARIES OF ST. LUCIA TMA ONLY)
PART 3	CLASS D	FL105 – FL195	WITHIN MARTINIQUE TMA BOUNDARIES
PART 4	CLASS E	3000FT – FL105	WITHIN MARTINIQUE & ST. LUCIA TMA BOUNDARIES
PART 5	CLASS A	FL195 – FL245	WITHIN MARTINIQUE TMA BOUNDARIES

5-4 DEPARTURES

Departing aircraft that have been assigned to an RNAV 1 SID will resume own navigation after takeoff while non-RNAV departures will receive radar vectors to intercept an airway/radial/track/fix or join a SID. If a pilot requests a route that starts outside of the Martinique TMA, it shall be coordinated with the adjacent facility or area control center.

Phraseology example:

TFFF_APP: AFR841, Martinique approach, identified passing 3000ft, resume own navigation, climb FL240.

5-5 ARRIVALS

For connecting flights between TFFR & TFFF it is required for pilots to comply with a KATIM RNAV1 STAR and requested flight level in their flight plan should be an odd level.

RNAV1 STARs are preferential. All non-RNAV arrivals will be provided with radar vectors as necessary or cleared to one of the Initial Approach Fixes (IAF) or Intermediate Fix (IF). It is not advised that you clear an aircraft for instrument approach procedures with an intercept angle to the final approach course that is greater than 90 degrees.

MARTINIQUE RNAV STARS (1D/ T/ X/ V)				
RUNWAY	STAR	DIRECTION	INITIAL APPROACH FIX	INSTRUMENT APPROACH PROCEDURE
10	BORUS			
	BORU1V	SE	VODAK	RNP
	BORU1X		KAREX	ILSZ/VORZ/RNP
	DOM			
	DOM1D	N	DEDET	RNP
	DOM1X		KAREX	ILZ/VORZ/RNP
	EMOLA			
	EMOL1X	NW	KAREX	ILSZ/VORZ/RNP
	KATIM			
	KATI1D	N	DEDET	RNP
	KATI1X		KAREX	ILSZ/VORZ/RNP
	KISES			
	KISE1V	SSE	VODAK	RNP
	KISE1X		KAREX	ILSZ/VORZ/RNP
	SESPO			
	SESP1D	NE	DEDET	RNP
	SESP1T		VODAK	RNP
	SESP1V		VODAK	RNP
	SESP1X		KAREX	ILSZ/VORZ/RNP
	SOMON			
	SOMO1X	SW	KAREX	ILSZ/VORZ/RNP

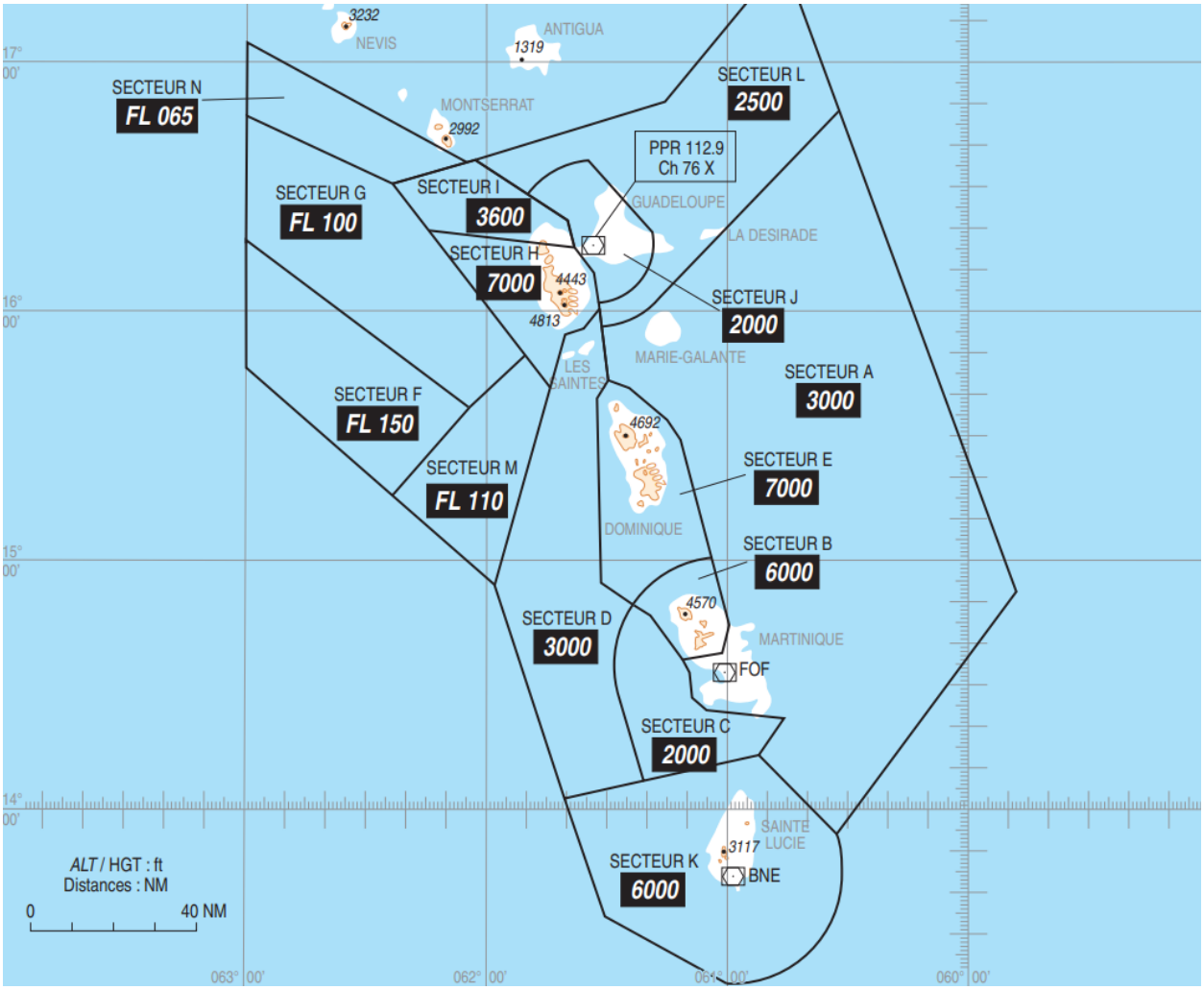
CONTINUED ON NEXT PAGE.

MARTINIQUE RNAV STARS PT.2 (1A/ C/ L)				
RUNWAY	STAR	DIRECTION	INITIAL APPROACH FIX	INSTRUMENT APPROACH PROCEDURE
28	BORUS			
	BORU1C	SE	CHARB	RNP/VOR
	BORU1L		GADIL	RNP/VOR
	DOM			
	DOM1A	N	APDAB	RNP
	DOM1L		GADIL	RNP/VOR
	EMOLA			
	EMOL1A	NW	APDAB	RNP
	EMOL1L		GADIL	RNP/VOR
	KATIM			
	KATI1A	N	APDAB	RNP
	KATI1L		GADIL	RNP/VOR
	KISES			
	KISE1C	S, SE	CHARB	RNP/VOR
	KISE1L		GADIL	RNP/VOR
	SESPO			
	SESP1L	NE	GADIL	RNP/VOR
	SOMON			
	SOMO1C	SW	GADIL	RNP/VOR
	SOMO1L		GADIL	RNP/VOR

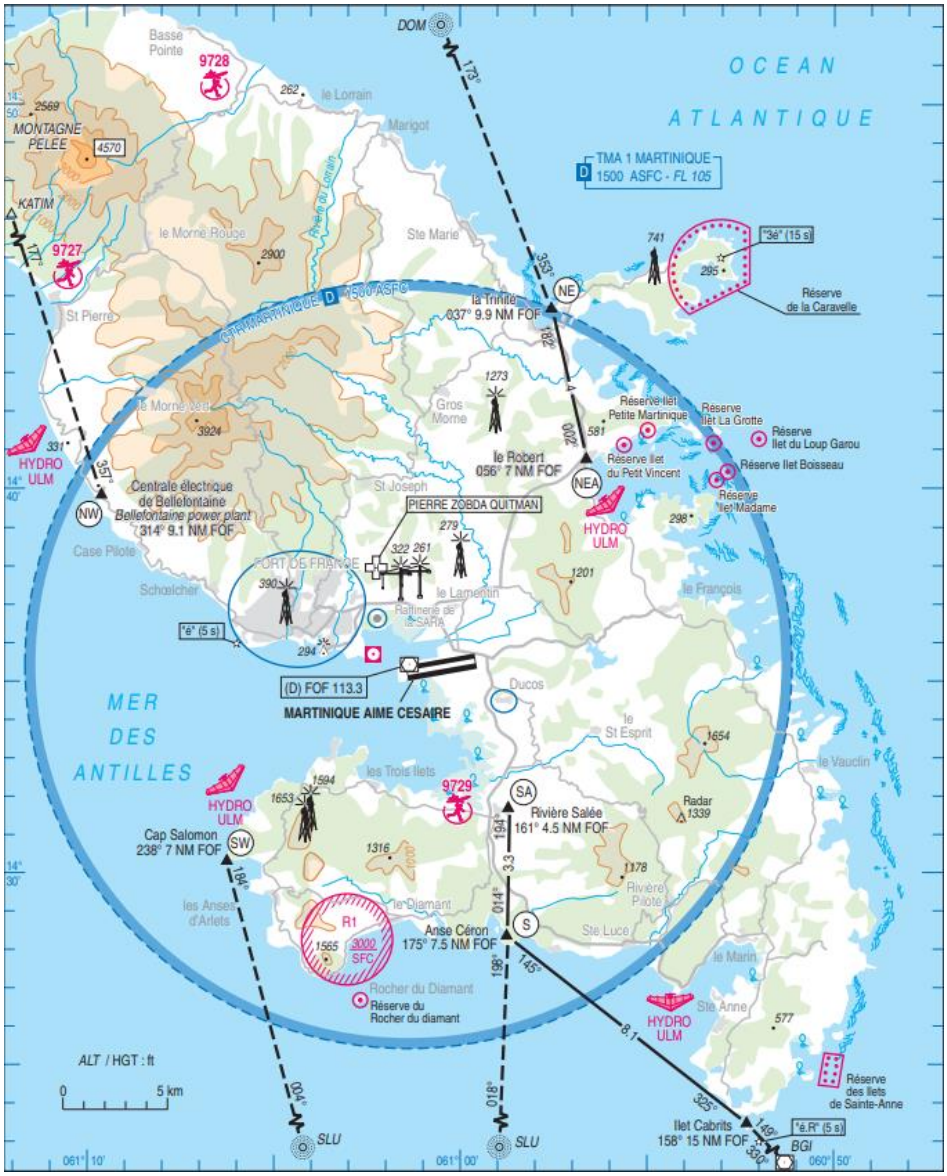
MARTINIQUE CONVENTIONAL STARS (6F)				
RUNWAY	STAR	DIRECTION	INITIAL APPROACH FIX	INSTRUMENT APPROACH PROCEDURE
ALL	BNE			
	BNE6F	S	FOF	ILSY/ILSX/VORY RWY10
	BORUS			
	BORU6F	SE	FOF	ILSY/ILSX/VORY RWY10
	DAMOV			
	DAMO6F	S, SE	FOF	ILSY/ILSX/VORY RWY10
	DOM			
	DOM6F	N	FOF	ILSY/ILSX/VORY RWY10
	EMOLA			
	EMOL6F	NW	FOF	ILSY/ILSX/VORY RWY10
	KATIM			
	KATI6F	N	FOF	ILSY/ILSX/VORY RWY10
	SESPO			
	SESP6F	NE	FOF	ILSY/ILSX/VORY RWY10
	SOMON			
	SOMO6F	SW	FOF	ILSY/ILSX/VORY RWY10

MARTINIQUE CONVENTIONAL STARS PT.3 (6A/ D/ G/ K/ P/ Q)				
RUNWAY	**STAR**	**DIRECTION**	**INITIAL APPROACH FIX**	**INSTRUMENT APPROACH PROCEDURE**
ALL	**BNE**			
	BNE6A	S	AGNOS	ILSY RWY10
	BNE6G			
	BNE6K		KAREX	ILSZ/VORZ RWY10
	BORUS			
	BORU6D	SE	DATIS	ILSY RWY10
	BORU6G		GADIL	VOR RWY28
	BORU6K		KAREX	ILSZ/VORZ RWY10
	DAMOV			
	DAMO6G	S, SE	DATIS	ILSY RWY10
	DAMO6K		KAREX	ILSZ/VORZ RWY10
	DOM			
	DOM6G	N	GADIL	VOR RWY28
	DOM6K		KAREX	ILSZ/VORZ RWY10
	EMOLA			
	EMOL6P	S	KAREX	ILSZ/VORZ RWY10
	EMOL6Q			
	KATIM			
	KATI6G	N	GADIL	VOR RWY28
	KATI6P		KAREX	ILSZ/VORZ RWY10
	KATI6Q			
	SESPO			
	SESP6G	NE	GADIL	VOR RWY28
	SESP6K		KAREX	ILSZ/VORZ RWY10
	SOMON			
	SOMO6G	SW	GADIL	VOR RWY28
	SOMO6K		KAREX	ILSZ/VORZ RWY10

Martinique & Point-a-Pitre Minimum Vectoring Altitudes



5-6 VFR REPORTING POINTS	
POINT	**DIRECTION**
LA TRINITÈ (THE TRINITY)	NE
LE ROBERT (ROBERT)	NE
RIVIÈRE SALÈE (SALT RIVER)	S
ANSE CÈRON	S
CAP SALOMON	SW
CENTRALE ELETRIQUE BELLENFONTAINE (BELLEFONTAINE POWER PLANT)	NW



5-7 ST. LUCA CONTROL ZONE

St. Lucia Approach (TLPL_APP) is responsible for providing ATC services to aircraft operating in the St. Lucia Control Zone.

The transfer of control point between Martinique approach and St. Lucia approach will be (departures) reaching 4500 feet and/or at the lateral boundaries of the TMA.

The transfer of control point between Martinique approach and St. Lucia approach will be (arrivals) reaching 6000 ft and/or at the lateral boundaries of Martinique TMA.

TLPL Departure Procedures:

For aircraft making a left turn after takeoff RWY10, climb on RWY heading until reaching 4200 ft, then left turn.

For aircraft making a right turn after takeoff RWY10, climb on RWY heading until 2000 ft, then right turn.

Visual Maneuvering conducted south of RWY10 extended centerline at TLPL. Right hand traffic pattern preferred.

TLPC Departure Procedures:

To join the A324 Southbound, climb west to intercept FOF VOR Radial 195 direct ‘SV’ NDB. Remain clear of cloud and in sight of surface until passing 4200 ft.

To join G642, climb north to join G642 from north. Remain clear of cloud and in sight of surface until passing 3250 ft.

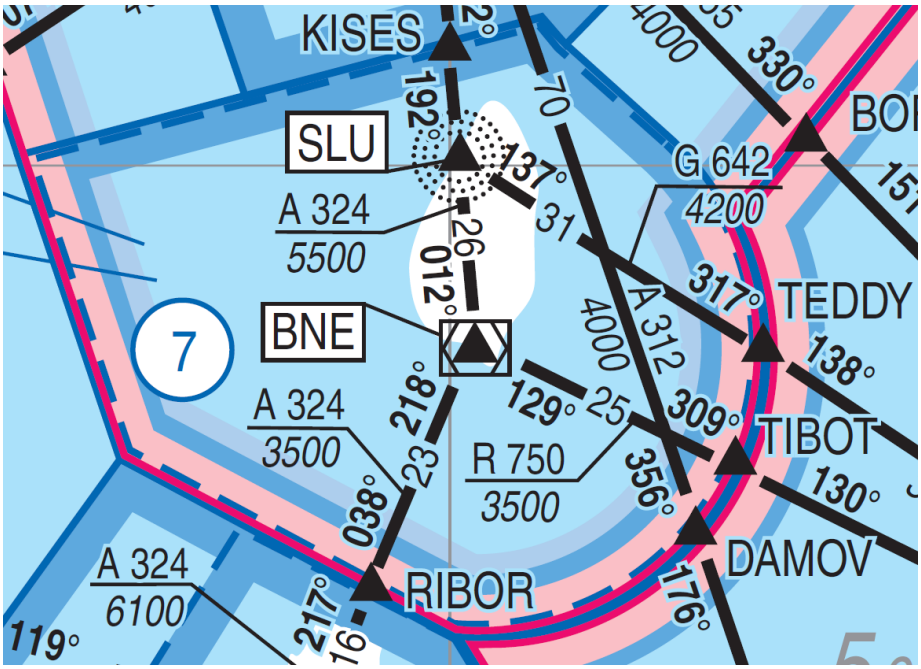
To join A324 Northbound, climb north, remain clear of cloud and in sight of surface until passing 2000 ft.

High terrain in all quadrants of RWY.

5-7 ST. LUCIA CONTROL ZONE PT. 2

ST. LUCIA CTR			
AIRSPACE	**VERTICAL LIMIT**	**LATERAL LIMIT**	**FREQUENCY**
CLASS D	4500 FT	25 NM CENTERED ON BNE	119.800 (APP)
AERODROME TRAFFIC ZONES			
AERODROME & CLASSIFICATION	**VERTICAL LIMIT**	**LATERAL LIMIT**	**FREQUENCY**
HEWANORRA (TLPL) CLASS D	2000 FT AAL	2.5 NM	118.300 (TWR) 121.600 (GND)
GEORGE CHARLES (TLPC) CLASS D			118.000 (TWR) 121.800 (GND)

Airspace Dimensions:



PIARCO

Flight Information Region

POINT-A-PITRE TMA

STANDARD OPERATING PROCEDURES

This document is to be used for Virtual Air Traffic Simulation purposes only.

TABLE OF CONTENT

CHAPTER 1: GENERAL INFORMATION

1-1 AERODROME SPECIFICATIONS – LE RAIZET (TFFR)

AIRSPACE	CLASS D
ELEVATION	35 FT
LATERAL DIMENSION	SFC – 3000ft
VERTICAL DIMENSION	15 NM
PATTERN ALTITUDE	700 FT AAL
TRANSITION ALTITUDE	9000 FT
STANDARD FLOW	EAST

1-2 OPERATIONAL POSITIONS

POSITION	IDENTIFIER	FREQUENCY
TFFR_GND	RAIZET GROUND	121.850
TFFR_TWR	RAIZET TOWER	118.400
TFFR_APP	RAIZET APPROACH	121.300
TFFR_ATIS	ATIS	127.600

1-3 BEACON CODES

DOMESTIC FLIGHTS	1501 – 1577
INT'L FLIGHTS	6501 – 6577
LOCAL FLIGHTS	3101 – 3177

CHAPTER 2: CLEARANCE DELIVERY

2-1 OVERVIEW

For flights in the Piarco FIR airspace requesting cruising levels above FL240, we coordinate with the Area Control Center (ACC) for startup clearance and requested flight level.

All clearance delivery procedures are handled by the Tower Controller. At Le Raizet, ATC clearances are issued before push back & start up.

2-2 VFR DEPARTURES

All VFR traffic within Point a Pitre TMA is REQUIRED to have a flight plan. If the pilot does not file one, you are responsible for creating it. At minimum, it should include the **aircraft type, departure airport, destination airport and cruise altitude**.

VFR Phraseology example:

N129SJ: Raizet Ground, N129SJ, ready for startup and clearance to Hewanorra.

TFFR_GND: N129SJ, cleared to Hewanorra, Climb to 4500 ft, squawk 1162.

(Pilot Readback)

TFFR_GND: N129SJ, readback correct, startup approved, runway 10 in use, QNH 1017, advise when ready to taxi.

2-3 IFR DEPARTURES

While issuing IFR clearance, do your best to ensure that all IFR departures comply with preferred routing. If a pilot reports unable, make adjustments as necessary. Coordinate any special requests with Raizet Approach.

All IFR departures must be given clearance with the following information:

[CALLSIGN] [CLEARANCE LIMIT] [ROUTE] [INITIAL/FINAL FLIGHT LEVEL] [SQUAWK CODE]

Phraseology example:

FWI541: Raizet Tower, FWI541 ready to copy IFR to Orly.

TFFR_TWR: FWI541 cleared to Paris-Orly via BOSET1F departure, then as filed. Initial climb 5000ft, squawk 6541.

(Pilot Readback)

TFFR_TWR: FWI541, readback correct, runway 12 is in use, QNH 1016, advise when ready for push and start.

2-4 STANDARD INSTRUMENT DEPARTURES

It is preferred to assign RNAV 1 SIDs to departing IFR aircraft. Departures can also be cleared to a navaid within the Point-a-Pitre TMA boundary, or given radar vectors to intercept an airway/radial/track.

For connecting flights between TFFR & TFFF it is expected for pilots to comply with a KATIM RNAV1 SID and requested flight level in their flight plan should be an ODD level.

LE RAIZET RNAV SIDS			
RUNWAY	SID	DIRECTION	INITIAL CLIMB
12	BIMBO [BIMB1F]	NW	5000
	BOSET [BOSE1F]	NE	5000
	DOM 1F	S	7000
	GORET [GORE1F]	W, NW	5000
	ILURI [ILUR1F]	W	5000
	KASKI [KASK1F]	N, NW	5000
	KATIM [KATI1F]	S	7000
	TASAR [TASA1F]	SE	7000
	TULEX [TULE1F]	SW	7000
30	BIMBO [BIMB1R]	NW	5000
	BOSET [BOSE1R]	NE	5000
	DOM 1R	S	7000
	GORET [GORE1R]	W, NW	5000
	ILURI [ILUR1R]	W	5000
	KASKI [KASK1R]	N, NW	5000
	KATIM [KATI1R]	S	7000
	TASAR [TASA1R]	SE	7000
	TULEX [TULE1R]	SW	7000
LE RAIZET CONVENTIONAL SIDS			
12	BIMBO [BIMB6E]	NW	NO RESTRICTION
	BOSET [BOSE6E]	NE	
	DOM 6E	S	
	DUNTA [DUNT6E]	SW	
	GORET [GORE6E]	W, NW	
	ILURI [ILUR6E]	W	
	KASKI [KASK6E]	N, NW	
	KATIM [KATI6E]	S	
	TASAR [TASA6E]	SE	
	TULEX [TULE6E]	SW	

CONTINUED ON NEXT PAGE.

LE RAIZET CONVENTIONAL SIDS PT.2		
RUNWAY	SID	DIRECTION
30	BIMBO [BIMB6W]	NW
	BOSET [BOSE6W]	NE
	DOM 6W	S
	GORET [GORE6W]	SW
	ILURI [ILUR6W]	W, NW
	KASKI [KASK6W]	W
	KATIM [KATI6W]	N, NW
	TASAR [TASA6W]	S
	TULEX [TULE6W]	SW

CHAPTER 3: GROUND CONTROL

3-1 OVERVIEW

Ground and Tower communications are done on one frequency at Le Raizet, therefore Raizet Tower is responsible for ATC clearances, airside movement areas and taxiways.

3-3 GROUND MOVEMENT

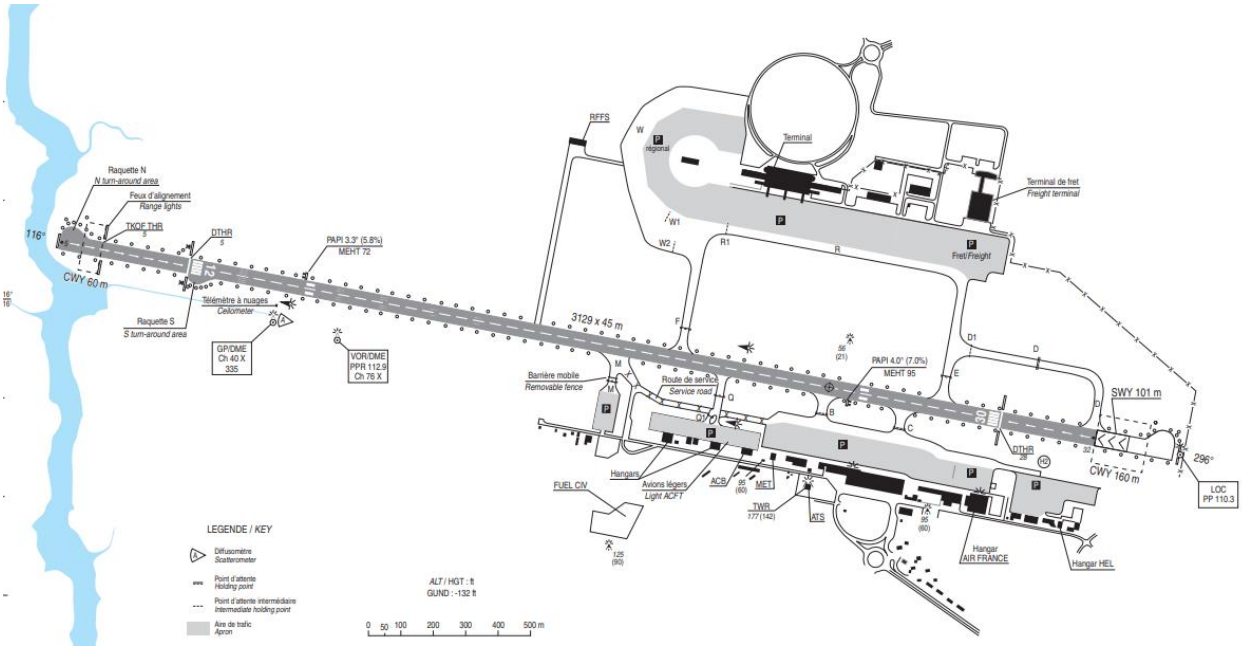
Runway 12 is used as the default runway to sequence departing and arriving traffic at Le Raizet.

Phraseology example:

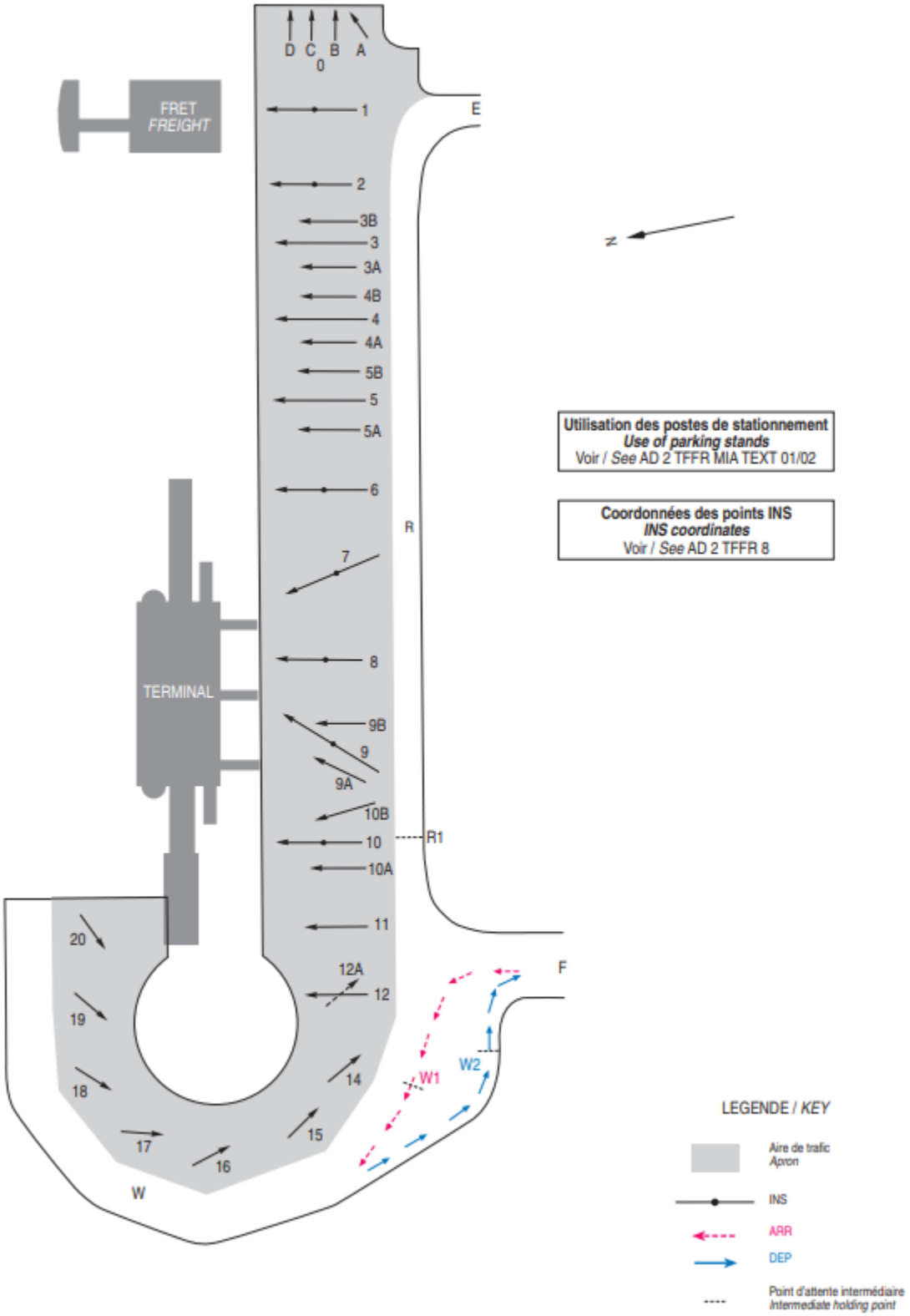
LIA311: Raizet ground, LIA311, ready to taxi.

TFFR_GND: LIA311, taxi via R to holding point F, runway 12.

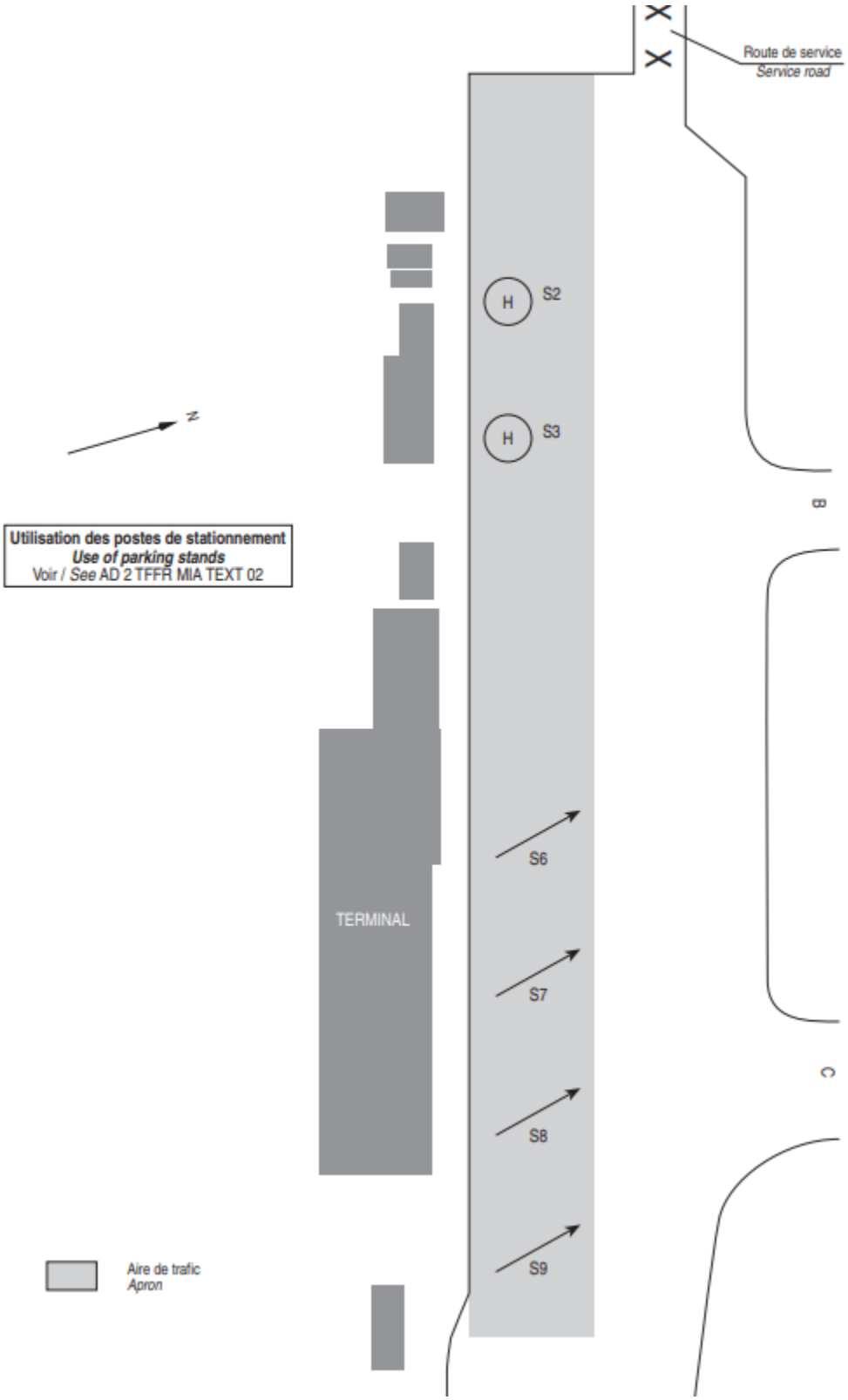
Le Raizet Ground Diagrams:



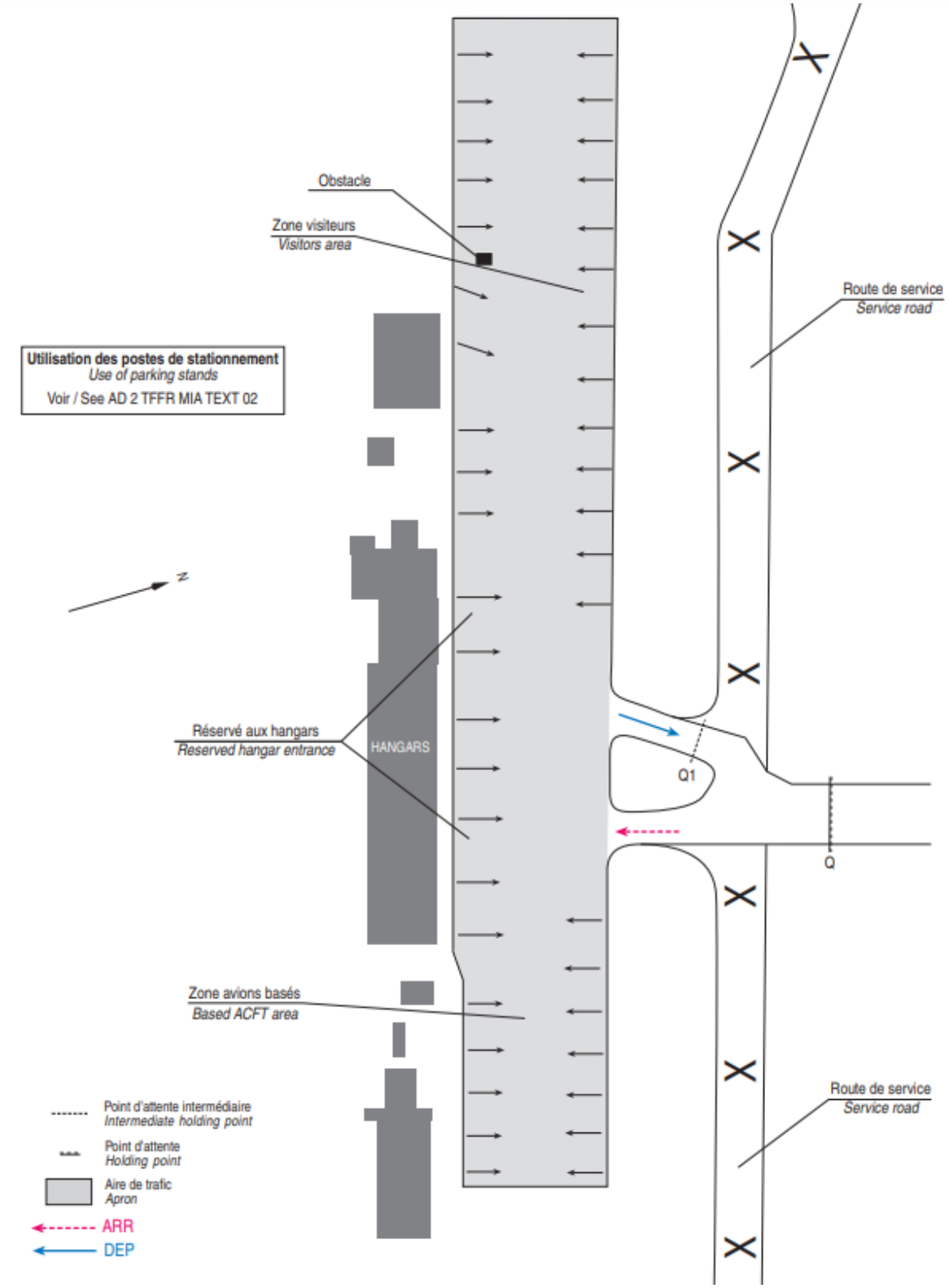
North Apron/ Terminal



South Apron/ Terminal



Light Aviation Apron/ Hangars



CHAPTER 4: AERODROME CONTROL

4-1 OVERVIEW

Raizet Tower is responsible for the active runways and traffic operating within Point-a-Pitre CTR (Control Zone).

The transfer of control point between aerodrome and approach controllers will be after reporting the aircraft airborne or when the aircraft is given entry instructions into the aerodromes airspace or when the aircraft is established on a standard instrument approach procedure.

4-2 VFR TRAFFIC

Preferred circuit pattern is the one NORTH of RWY axis.

4-3 UNPUBLISHED PROCEDURES

This section is for the special handling of aircraft without charts onboard or will be conducting a go-around.

If a pilot report missed, the aircraft should be instructed to “execute published missed approach”. If the pilot reports unable or no charts onboard, instruct the aircraft as prescribed.

RUNWAY	ALTITUDE	HEADING
12	2500	RWY HEADING
30	3600	RWY HEADING

4-5 RUNWAY SELECTION

Runway selection will be determined based on the current and forecasted weather, runway availability and the current forecasted traffic volume. Runway 30 is the calm wind runway at Le Raizet.

4-5 NOISE ABATEMENT

Jet and conventional aircraft in IFR shall remain in the RWY axis up to 2000 ft when climbing and 3.5 nm from PPR VOR before turning to their destination.

Long haul flights to Europe shall remain within the RWY axis up to 1000 ft when climbing and 3.5 NM from PPR VOR before turning to their destination.

Conventional aircraft in VFR, if northbound shall remain in RWY axis and turn left after passing the urban area of Les Abymes to the north.

Conventional aircraft in VFR, if southbound shall remain in the RWY axis and turn right after passing the neighborhood of Petit Perou in the south.

CHAPTER 5: RAIZET APPROACH

5-1 OVERVIEW

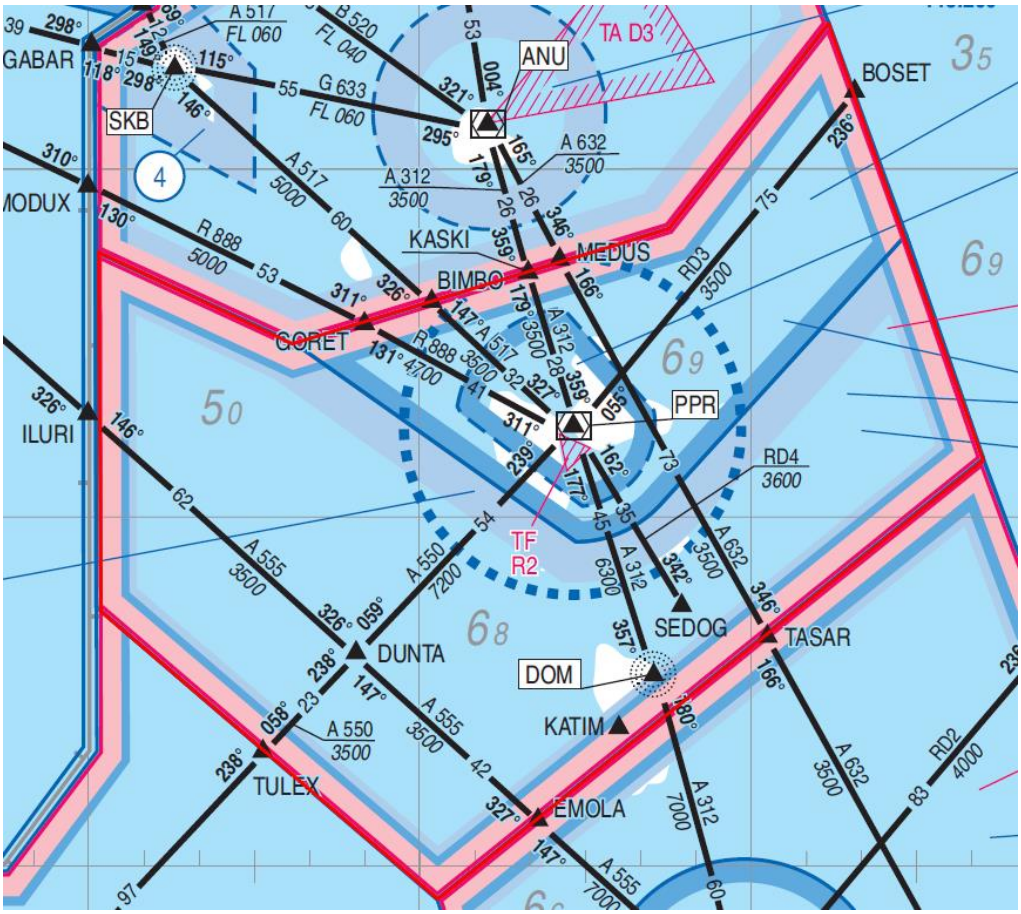
This chapter covers common pressures used within Point-a-Pitre TMA at the approach level.

The transfer of control point between the approach and center controllers will be (departures) reaching FL240 and/or at the lateral boundaries of the TMA or (arrivals) reaching FL250 and/or at the lateral boundaries of Point-a-Pitre TMA.

5-2 SEPARATION MINIMA

Aircraft shall maintain a separation minimum of 10NM within Point-a-Pitre TMA.

5-3 AIRSPACE DIMENSIONS



5-3 AIRSPACE DIMENSIONS PT. 2

POINT-A-PITRE TERMINAL CONTROL AREA (ABOVE CTR)			
PARTITION	**CLASSIFICATION**	**VERTICAL DIMENSION**	**LATERAL DIMENSION**
TMA 1	CLASS D	2500FT – FL105	REFER TO FRENCH CAR AIP ENR 6.1
TMA 2	CLASS D	FL105 – FL195	-
TMA 3	CLASS E	3000FT – FL105	-
TMA 4	CLASS A	FL195 – FL245	-

5-4 DEPARTURES

Departing aircraft that have been assigned to an RNAV 1 SID will resume own navigation after takeoff while non-RNAV departures will receive radar vectors to intercept an airway/radial/track/fix or join a SID. If a pilot requests a route that starts outside of the Point-a-Pitre TMA, it shall be coordinated with the adjacent facility or area control center.

Phraseology example:

TFFR_APP: AFR841, Raizet approach, identified passing 3000ft, resume the BOSET1F departure, climb FL240.

5-5 ARRIVALS

For connecting flights between TFFF & TFFR it is required for pilots to comply with a LIDOS RNAV1 STAR and requested flight level in their flight plan should be an EVEN level.

RNAV1 STARs are preferential. All non-RNAV arrivals will be provided with radar vectors as necessary or cleared to one of the Initial Approach Fixes (IAF) or Intermediate Fix (IF).

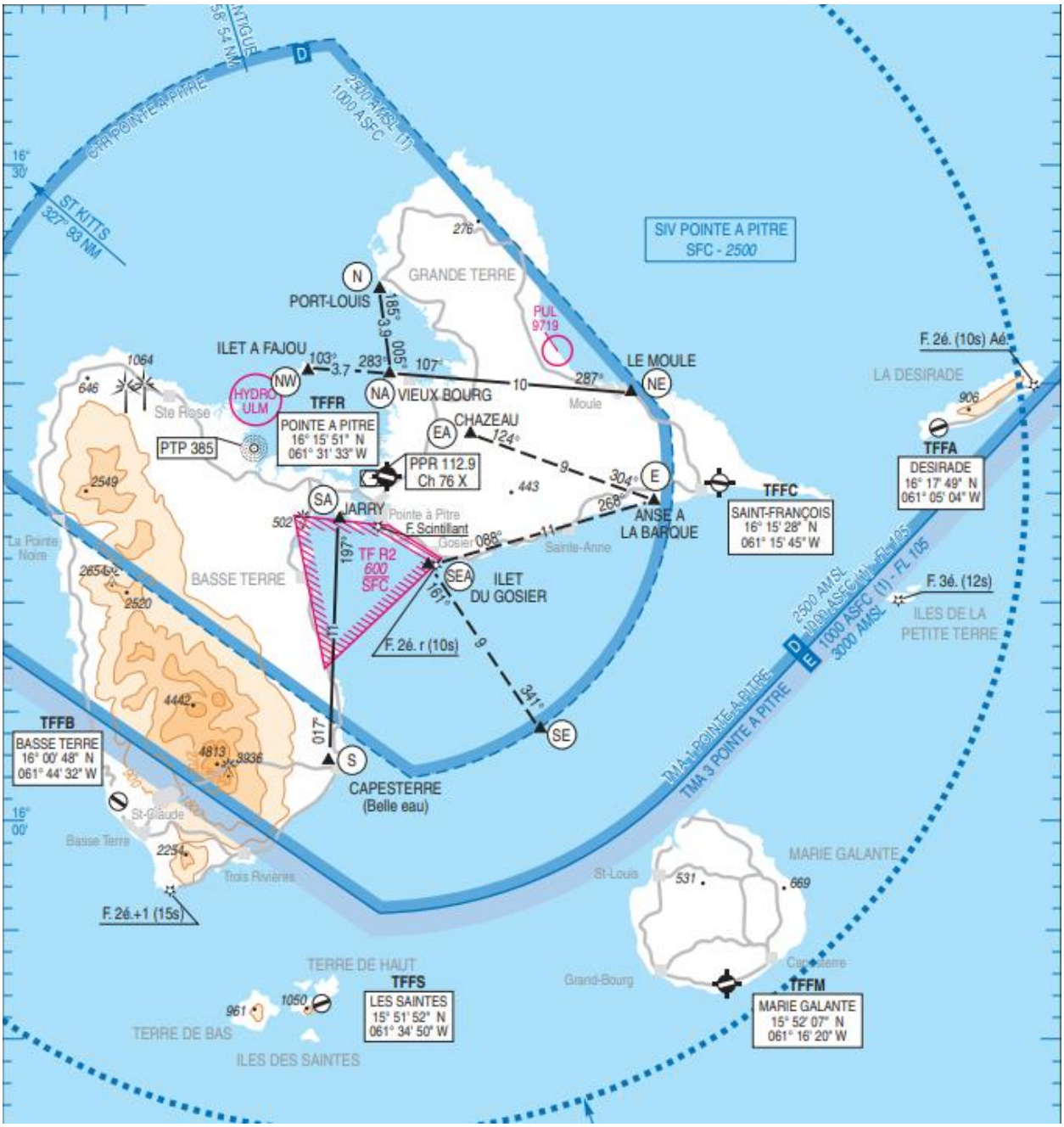
LE RAIZET RNAV STARS (1A/ S/ Z)				
RUNWAY	**STAR**	**DIRECTION**	**INITIAL APPROACH FIX**	**INSTRUMENT APPROACH PROCEDURE**
12	**BIMBO**			
	BIMB1A	NW	AVSET	RNP Y RWY12
	BIMB1Z		RIDIN	ILSZ/RNPZ RWY12
	BOSET			
	BOSE1A	NE	AVSET	RNP Y RWY12
	BOSE1S		DESTO	RNPZ/RNPY/ILSZ RWY12
	BOSE1Z		RIDIN	ILSZ/RNPZ RWY12
	DOM			
	DOM1S	S	DESTO	RNPZ/RNPY/ILSZ RWY12
	DOM1Z		RIDIN	ILSZ/RNPZ RWY12
	GORET			
	GORE1A	W, NW	AVSET	RNP Y RWY12
	GORE1Z		RIDIN	ILSZ/RNPZ RWY12
	ILURI			
	ILUR1Z	W	RIDIN	ILSZ/RNPZ RWY12
	CONTINUED ON NEXT PAGE.			

LE RAIZET RNAV STARS PT.2 (1A/ S/ Z)				
RUNWAY	**STAR**	**DIRECTION**	**INITIAL APPROACH FIX**	**INSTRUMENT APPROACH PROCEDURE**
12	**KASKI**			
	KASK1A	NW	AVSET	RNP Y RWY12
	KASK1Z		RIDIN	ILSZ/RNPZ RWY12
	LIDOS			
	LIDO1S	S, SE	DESTO	RNPZ/RNPY/ILSZ RWY12
	LIDO1Z		RIDIN	ILSZ/RNPZ RWY12
	TASAR			
	TASA1S	SE	DESTO	RNPZ/RNPY/ILSZ RWY12
	TASA1Z		RIDIN	ILSZ/RNPZ RWY12
	TULEX			
	TULE1Z	SW	RIDIN	ILSZ/RNPZ RWY12
LE RAIZET RNAV STARS PT.3 (1G/ L/ U)				
30	**BIMBO**			
	BIMB1L	NW	LOMPA	RNP RWY30
	BIMB1U		DULBO	RNP RWY30
	BOSET			
	BOSE1L	NE	LOMPA	RNP RWY30
	BOSE1U		DULBO	RNP RWY30
	DOM			
	DOM1G	S	GONES	RNP RWY30
	DOM1L		LOMPA	RNP RWY30
	GORET			
	GORE1L	W, NW	LOMPA	RNP RWY30
	GORE1U		DULBO	RNP RWY30
	CONTINUED ON NEXT PAGE.			

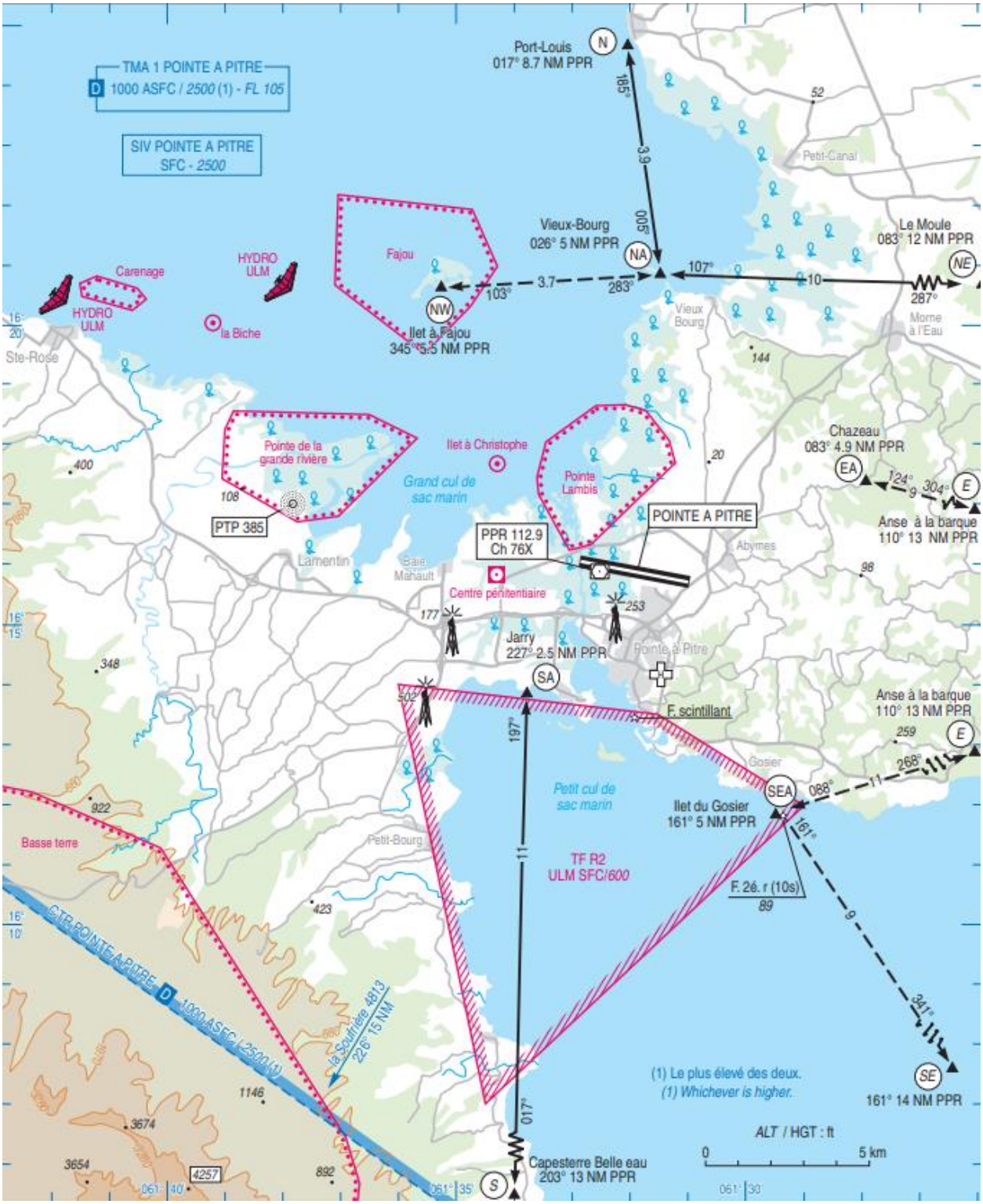
LE RAIZET RNAV STARS PT.4 (1G/ L/ U)				
RUNWAY	STAR	DIRECTION	INITIAL APPROACH FIX	INSTRUMENT APPROACH PROCEDURE
30	ILURI			
	ILUR1L	W	LOMPA	RNP RWY30
	ILUR1U		DULBO	RNP RWY30
	KASKI			
	KASK1L	NW	LOMPA	RNP RWY30
	KASK1U		DULBO	RNP RWY30
	LIDOS			
	LIDO1G	S, SE	GONES	RNP RWY30
	LIDO1L		LOMPA	RNP RWY30
	TULEX			
	TULE1G	SW	GONES	RNP RWY30
	TULE1L		LOMPA	RNP RWY30
	TASAR			
	TASA1L	SE	LOMPA	RNP RWY30
LE RAIZET CONVENTIONAL STARS (5K)				
ALL	BIMBO			
	BIMB5K	NW	KEDAK	ILSY RWY12
	BOSET			
	BOSE5K	NE	KEDAK	ILSY RWY12
	DOM			
	DOM5K	S	PPR	ILSY RWY12
	GORET			
	GORE5K	W, NW	KEDAK	ILSY RWY12
	KASKI			
	KASK5K	NW	KEDAK	ILSY RWY12
	LIDOS			
	LIDO5K	S, SE	PPR	ILSY RWY12
	TULEX			
	TULE5K	SW	KEDAK	ILSY RWY12

LE RAIZET CONVENTIONAL STARS PT.2 (5P/ M)				
RUNWAY	STAR	DIRECTION	INITIAL APPROACH FIX	INSTRUMENT APPROACH PROCEDURE
ALL	**BIMBO**			
	BIMB5P	NW	PPR	ILSY/VOR RWY12/ VOR RWY30
	BOSET			
	BOSE5P	NE	PPR	ILSY/VOR RWY12/ VOR RWY30
	DOM			
	DOM5P	S	PPR	ILSY/VOR RWY12/ VOR RWY30
	GORET			
	GORE5P	W, NW	PPR	ILSY/VOR RWY12/ VOR RWY30
	KASKI			
	KASK5P	NW	PPR	ILSY/VOR RWY12/ VOR RWY30
	LIDOS			
	LIDO5P	S, SE	PPR	ILSY/VOR RWY12/ VOR RWY30
	TULEX			
	TULE5M	SW	MUNSI	ILSY RWY12
	TULE5P		PPR	ILSY/VOR RWY12/ VOR RWY30

5-6 VFR REPORTING POINTS



Visual Approach:



5-6 VFR REPORTING POINTS PT. 2

POINT	DIRECTION/ ID
PORT LOUIS	N
VIEUX BOURG	NA
LE MOULE	NE
IIETT FAJOU	NW
ANSE À LA BARQUE	E
CHAZEAU	EA
CAPESTERRRE	S
JARRY	SA
-	SE
IIET GOSIER	SEA

No Aerodrome control service provided at the following airports in Point-a-Pitre TMA (Uncontrolled):

TFFA – La Désirade Airport

TFFB – Baillif Airport

TFFC – Saint Francois Airport

TFFM – Marie Galante Airport

TFFS – Les Saintes Airport

5-7 DOMINICA TRAFFIC

AERODROME TRAFFIC ZONES				
AERODROME	**CLASSIFICATION**	**VERTICAL LIMIT**	**LATERAL LIMIT**	**TWR FREQUENCY**
DOUGLAS CHARLES (TDPD)	G	2000 FT AAL	2 NM	118.900
CANEFIELD (TDCF)				118.700

Aircraft departing TDPD & TDCF that will climb to a cruise altitude above 3000ft shall contact Raizet Approach if direction of flight is Northbound or Martinique Approach if Southbound.

Douglas Charles (TDPD):

RNAV SID	
RUNWAY	**SID**
09	KAROT1

Take-off on RWY 27 prohibited.

Take-off and landing of aircraft on all runways during the day and at night time are limited to operations in Visual Meteorological Conditions (VMC) only.

VISUAL APPROACH MINIMUMS (IFR)		
RUNWAY	**CEILING**	**VISIBILITY**
ALL	1500 FT OR HIGHER	5KM OR GREATER

The landing of aircraft on RWY 27 at night is not approved when the tailwind component exceeds 10 knots.

RNAV Approaches: Pilots of IFR aircraft landing at Douglas Charles who intend to conduct an RNAV/ GNSS RWY 27 procedure shall advise Le Raizet APP or Martiniqe APP either prior to reaching FOF or PPR or before departing TFFF or TFFR. The pilot shall inform APP of the appropriate IAF (ADVUR, VOLAB, IGROP) to which they request to be cleared.

NDB (DME) Approaches: Pilots of IFR aircraft landing at Douglas Charles will be cleared by Le Raizet APP or Martinique APP to proceed to IAF NOSAM in order to conduct a NDB RWY 27 procedure as the default clearance. Pilots may request to proceed to IAF SEDOG or ULOMA either prior to reaching FOF or PPR or before departing TFFF or TFFR.

For aircraft that are unable to conduct RNAV RWY 27 approach, Le Raizet RAPCO will provide an ATC clearance to fly to NOSAM, either by aircraft's own navigation or by providing radar vectoring, and to descend to 3000 ft. Below this altitude the pilot may continue IFR on a visual approach in uncontrolled airspace at pilot's discretion, or the pilot may cancel IFR and continue VFR.

PIARCO
Flight Information Region

MINOR TMA (PROCEDURAL)
STANDARD OPERATING PROCEDURES

TABLE OF CONTENT

CHAPTER 1: V.C BIRD TMA

1-1 V.C BIRD AERODROME SPECIFICATIONS

AIRSPACE (CTR)	CLASS E
ELEVATION	58 FT
LATERAL DIMENSION	20 NM
VERTICAL DIMENSION	SFC – 3000 FT AMSL
PATTERN ALTITUDE	1000 FT AGL
TRANSITION ALTITUDE	2500 FT AGL
STANDARD FLOW	EAST

1-2 OPERATIONAL POSITIONS

POSITION	IDENTIFIER	FREQUENCY
TAPA_GND	V C BIRD GROUND	121.900
TAPA_TWR	V C BIRD TOWER	118.200
TAPA_APP	V C BIRD APPROACH	119.100
TAPA_ATIS	ATIS	132.400

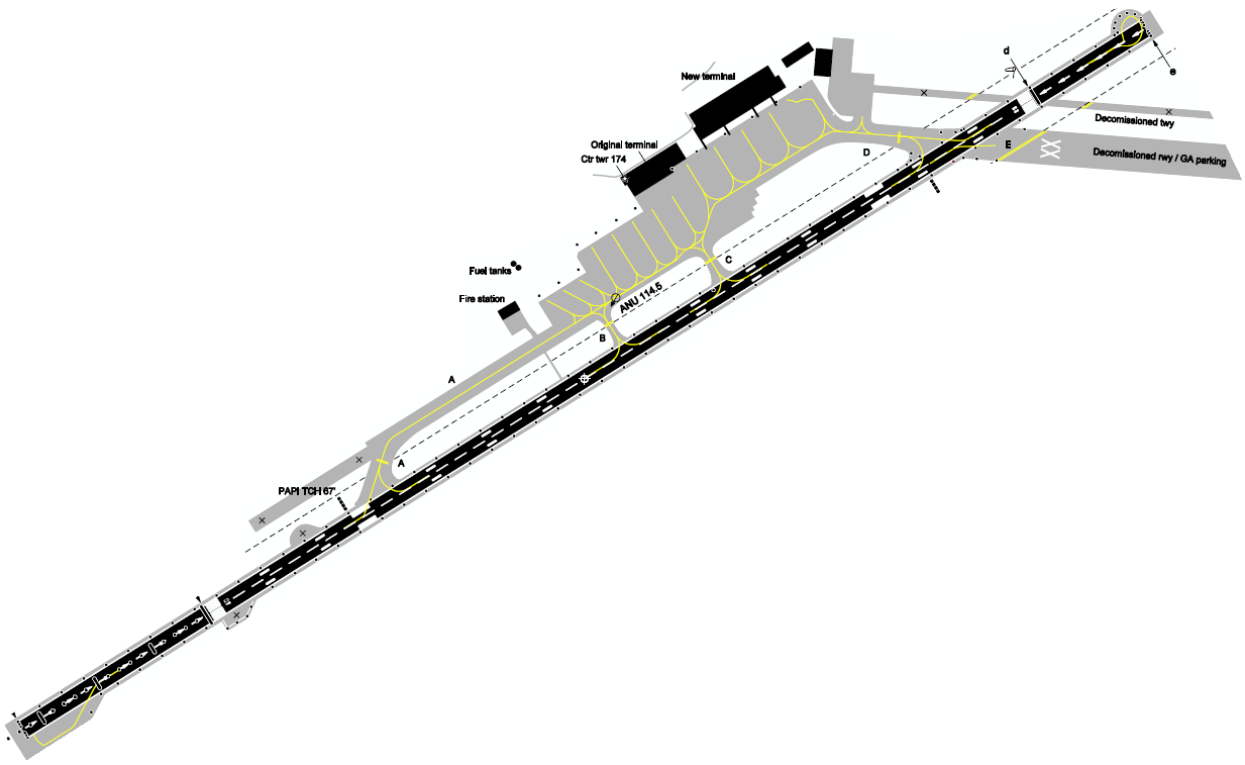
1-3 VFR DEPARTURES

Flights operating within the V.C Bird CTR in accordance with Visual Flight Rules are initially restricted to a maximum of 2000ft AMSL.

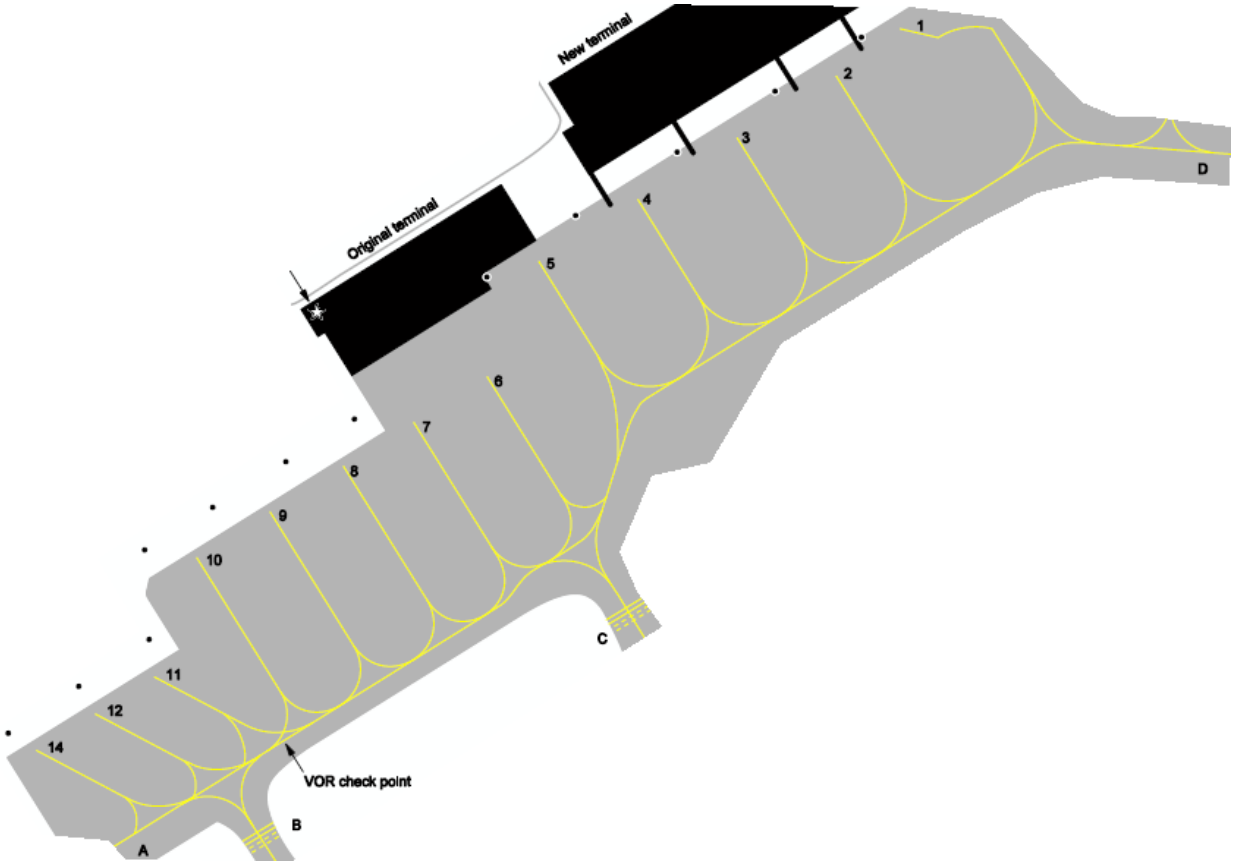
1-4 GROUND MOVEMENT

Taxiway A is restricted to aircraft with max take-off weight of 65,000lbs (29,484kg) or less, and wing span of 100’ (30m) or less. (ERJ, CRJ, ATR, General Aviation etc.)

Ground Diagram:



Parking Gates:



1-5 AERODROME CONTROL

V.C Bird tower is responsible for the active runways and traffic operating within V.C Bird Control Zone. Despite the CTR vertical limits being 3000ft, tower is responsible for flights from SFC to FL040.

V.C Bird CTR lateral limits is represented by the dashed magenta lines in the image below.

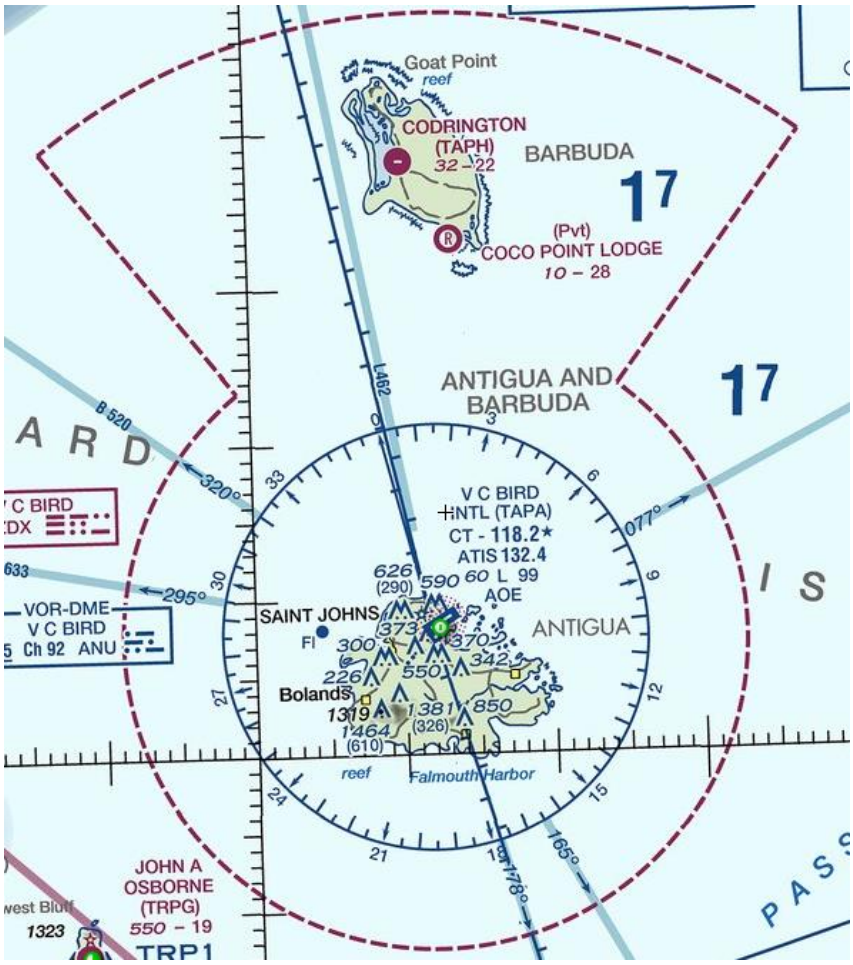


Image Source: SkyVector

1-6 NOISE ABATEMENT

All aircraft departing RWY07 will climb to 500 ft after take-off and immediately initiate a left or right turn, depending upon destination, at a bank angle of at least 15 degrees in order to avoid passage directly over Long Island.

Aircraft proceeding on a northerly track should initially maintain a heading not more easterly than 027 degrees until north of a bearing of 072 degrees from the 'ZDX' NDB.

Aircraft proceeding on a southerly track may continue with course intercept provided the requirement for **'all aircraft departing RWY07'** has been achieved.

1-7 VFR HOLDING POSITIONS

In order to avoid conflicts with aircraft within V.C Bird traffic circuit, the following positions are established for the holding of VFR aircraft during periods of congestion:

DIRECTION OF APPROACH	HOLDING POSITION	RUNWAY IN USE	VOR/DME FIX
NORTH, WEST	PRICKLY PEAR ISLAND COAST	07/25	310ANU3.0
SOUTH, SOUTHWEST	POTWORKS DAM	07	157ANU4.0
SOUTH, SOUTHWEST	PELICAN ISLAND	25	120ANU5.5

1-8 V.C BIRD APPROACH

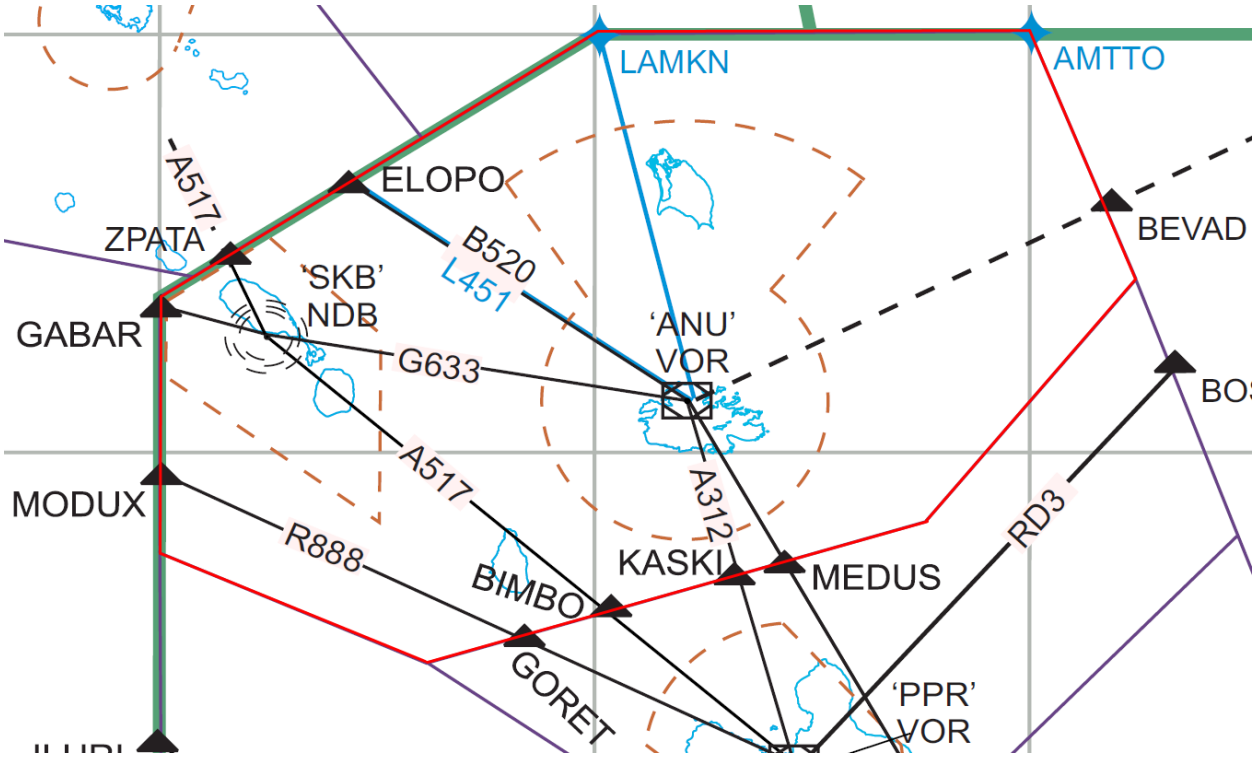
V.C Bird Approach (TAPA_APP) is responsible for providing ATC services to aircraft operating in the V.C Bird TMA.

The transfer of control point between the approach and center controllers will be (departures) reaching FL240 and/or at the lateral boundaries of the TMA or (arrivals) reaching FL250 and/or at the lateral boundaries of V.C Bird TMA.

See TTZP-ZSU Letter of Agreement for TCP with San Juan CERAP.

V.C BIRD TERMINAL CONTROL AREA	
VERTICAL LIMIT	**AIRSPACE**
3000ft – FL195	CLASS E
FL195 – FL245	CLASS A

Airspace Dimensions:



CHAPTER 2: BRADSHAW CTR

2-1 AERODROME SPECIFICATIONS: ROBERT L. BRADSHAW (TKPK)

AIRSPACE (ATZ)	CLASS E
ELEVATION	168 FT
LATERAL DIMENSION	2.5 NM
VERTICAL DIMENSION	SFC – 2000 FT AAL
PATTERN ALTITUDE	1500 FT AGL
TRANSITION ALTITUDE	5000 FT AGL
STANDARD FLOW	EAST

VANCE W. AMORY (TKPN):

AIRSPACE (ATZ)	CLASS D
ELEVATION	25 FT
LATERAL DIMENSION	1.5 NM
VERTICAL DIMENSION	SFC – 2000 FT AAL
PATTERN ALTITUDE	1000 FT AGL
TRANSITION ALTITUDE	5000 FT AGL
STANDARD FLOW	EAST

2-2 OPERATIONAL POSITIONS

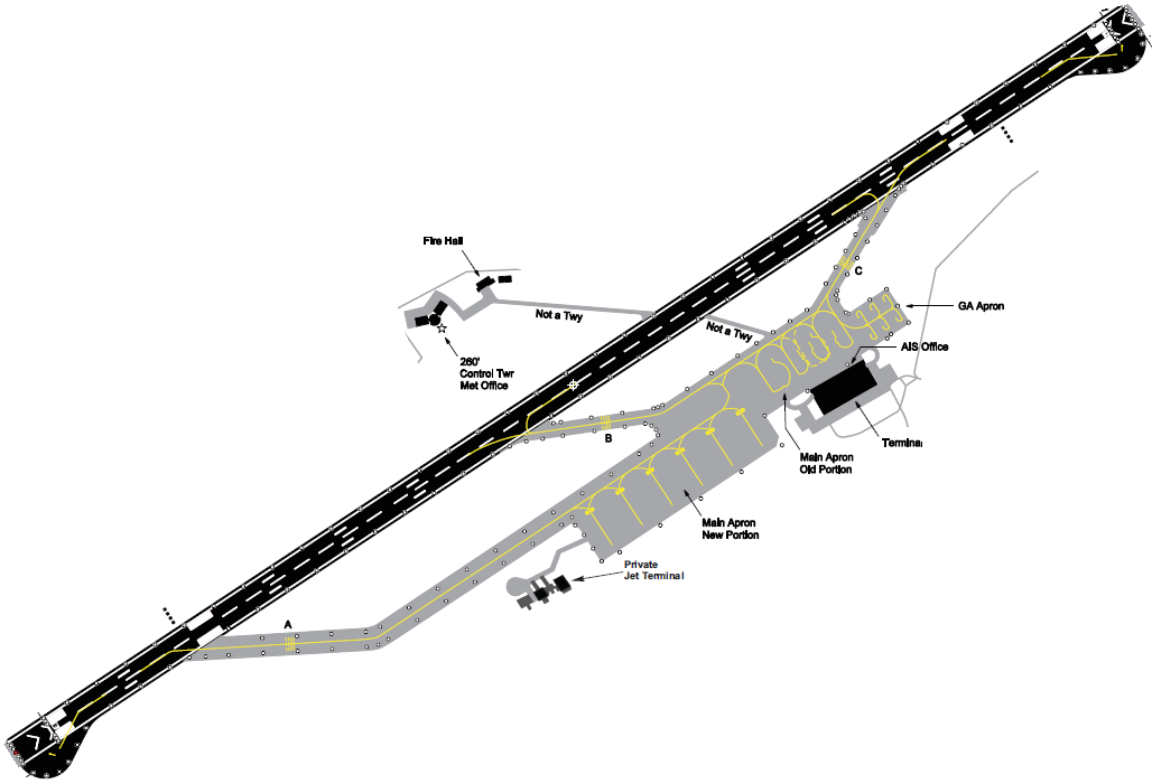
POSITION	IDENTIFIER	FREQUENCY
TKPK_GND	BRADSHAW GROUND	121.900
TKPN_GND	AMORY GROUND	121.600
TKPK_TWR	BRADSHAW TOWER	118.300
TKPN_TWR	AMORY TOWER	120.500
TKPK_APP	BRADSHAW APPROACH	119.600

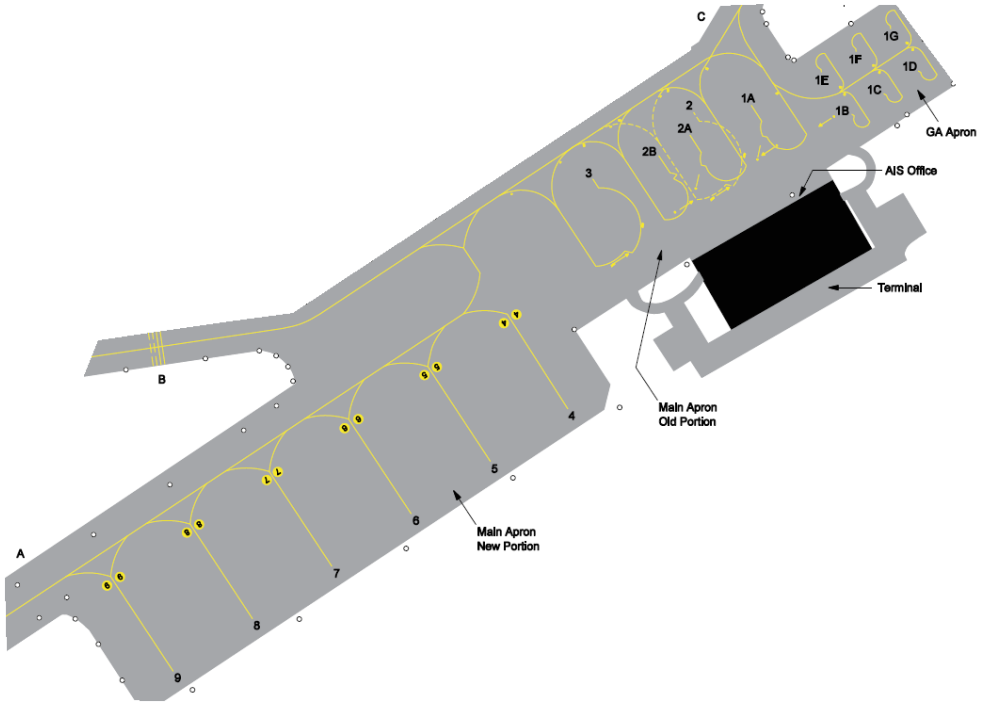
2-3 STANDARD INSTRUMENT DEPARTURES

TKPK		
RUNWAY	**SID (RNAV)**	**TRANSITIONS & DIRECTION OF FLIGHT**
07	KIPUR1	ANASU – SE BOMET – SE ELOPO – NE ZPATA – NW
07	UDGEL1	GABAR – NW
25	DUSUL1	ANASU – SE ANU – E GABAR – NW ZPATA – NW
TKPN		
07	OVISA1	ANASU – SE BOMET – SE GABAR – NW ZPATA – NW

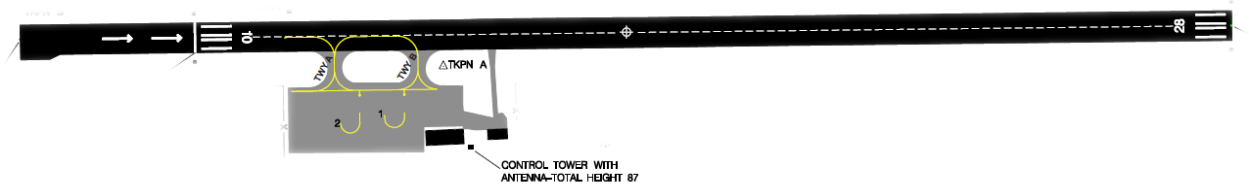
2-4 GROUND DIAGRAMS

TKPK:





TKPN:


10
28
TWY
TWY
△TKPN A
2
1
CONTROL TOWER WITH
ANTENNA-TOTAL HEIGHT 87

2-5 AERODROME CONTROL

Bradshaw tower is responsible for the active runways and traffic operating within the Robert L. Bradshaw ATZ.

Amory tower is responsible for active runways and traffic operating within the Vance W. Amory ATZ.

2-6 TKPK TRAFFIC

RWY07 right hand circuit pattern is preferred due to rapidly rising terrain Northwest through East of the aerodrome.

All aircraft shall maintain at least 1500 feet over towns and built-up areas.

2-7 TKPN TRAFFIC

Caution: Hurricane hill located west of RWY10 displaced threshold and rapidly rising terrain south of the runway.

RWY28 right hand circuit pattern is preferred. (Day-time use only)

2-8 BRADSHAW APPROACH

Bradshaw Approach (TKPK_APP) is responsible for providing ATC services to aircraft operating in the Bradshaw Control Zone.

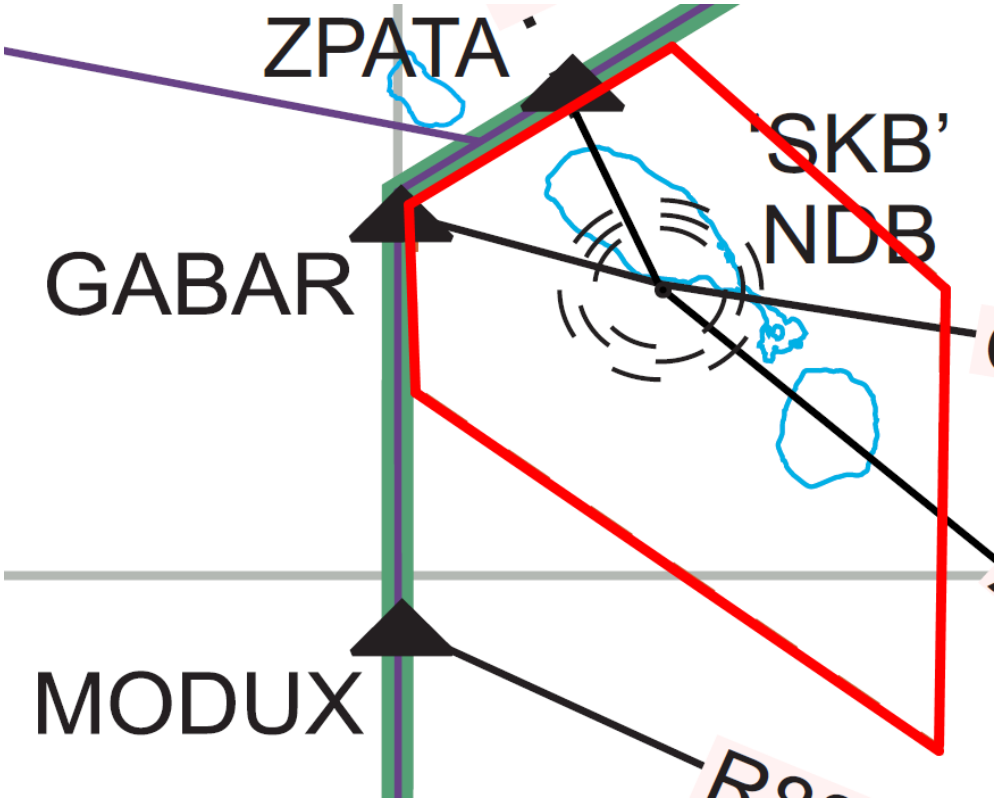
The transfer of control point between Bradshaw approach and V.C Bird approach will be reaching FL065 and/or at the lateral boundaries of the Control Zone.

See TTZP-ZSU Letter of Agreement for TCP with San Juan CERAP.

2-8 BRADSHAW APPROACH PT.2

BRADSHAW CONTROL ZONE	
AIRSPACE	**VERTICAL LIMIT**
CLASS E	SFC – FL065

Airspace Dimensions:



CHAPTER 3: ARGYLE TMA

3-1 AERODROME SPECIFICATIONS – ARGYLE (TVSA)

AIRSPACE (ATZ)	CLASS D
ELEVATION	136 FT
LATERAL DIMENSION	2 NM
VERTICAL DIMENSION	2000 FT AAL
PATTERN ALTITUDE	1000 FT AAL
TRANSITION ALTITUDE	5200 FT
STANDARD FLOW	NORTH

J.F MITCHELL (TVSB)

AIRSPACE (ATZ)	CLASS G
ELEVATION	15 FT
LATERAL DIMENSION	2 NM
VERTICAL DIMENSION	2000 FT AAL
PATTERN ALTITUDE	1000 FT AAL
TRANSITION ALTITUDE	4200 FT
STANDARD FLOW	EAST

CANOUAN (TVSC)

AIRSPACE (ATZ)	CLASS G
ELEVATION	16 FT
LATERAL DIMENSION	2 NM
VERTICAL DIMENSION	2000 FT AAL
PATTERN ALTITUDE	1000 FT AAL
TRANSITION ALTITUDE	4200 FT
STANDARD FLOW	EAST

UNION ISLAND (TVSU)

AIRSPACE (ATZ)	CLASS G
ELEVATION	16 FT
LATERAL DIMENSION	2 NM
VERTICAL DIMENSION	2000 FT AAL
PATTERN ALTITUDE	1000 FT AAL
TRANSITION ALTITUDE	4200 FT
STANDARD FLOW	EAST

MUSTIQUE (TVSM) – UNCONTROLLED

AIRSPACE (ATZ)	**CLASS G**
ELEVATION	**9 FT**
LATERAL DIMENSION	**2 NM**
VERTICAL DIMENSION	**2000 FT AAL**
PATTERN ALTITUDE	**1000 FT AAL**
TRANSITION ALTITUDE	**4200 FT**
STANDARD FLOW	**EAST**

3-2 OPERATIONAL POSITIONS

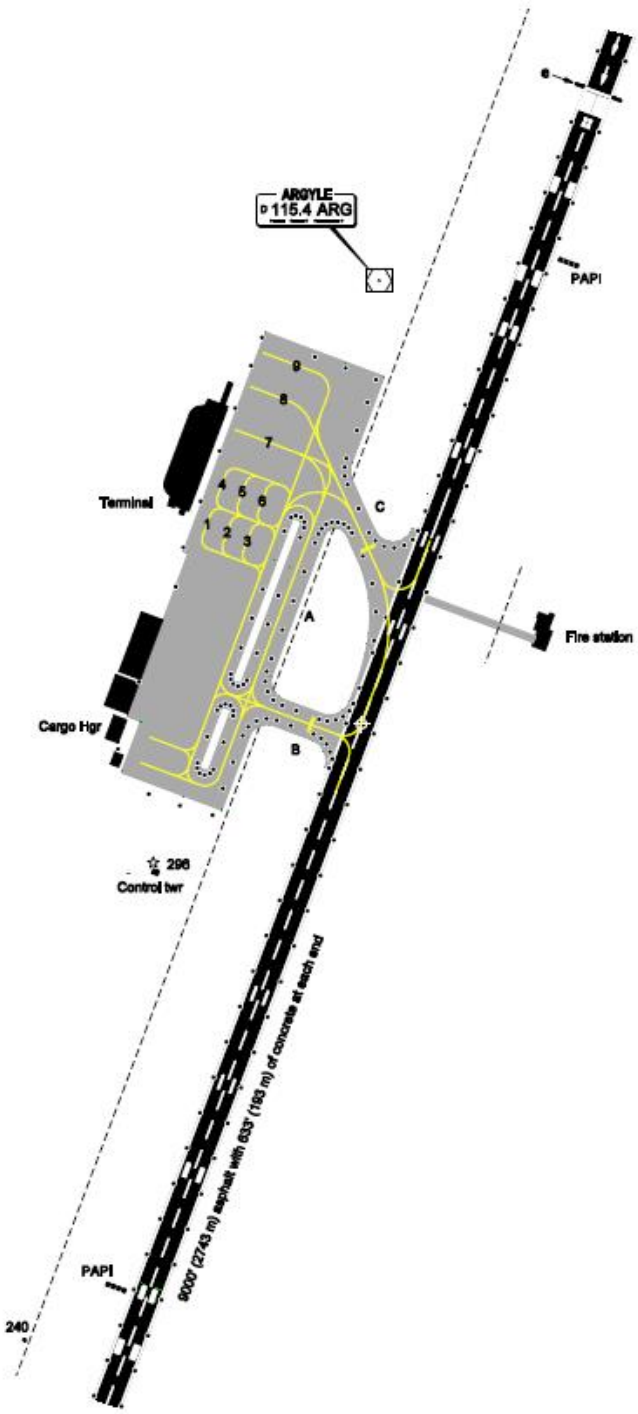
POSITION	IDENTIFIER	FREQUENCY
TVSA_GND	ARGYLE GROUND	121.900
TVSC_GND	CANOUAN GROUND	121.600
TVSA_TWR	ARGYLE TOWER	118.800
TVSC_TWR	CANOUAN TOWER	118.050
TVSB_TWR	J.F MITCHELL TOWER	118.450
TVSU_TWR	UNION ISLAND TOWER	122.800
TVSA_APP	ARGYLE APPROACH	120.800
TVSA_ATIS	ATIS	132.550

3-3 STANDARD INSTRUMENT DEPARTURES

ARGYLE RNAV SIDS		
RUNWAY	**SID**	**DIRECTION**
22	BNEPL	NE
	GOTER	E
	LENAL	W
	LIDOG	NW
	RESAS	SW
04	BNEP1A	NE
	GOTE1A	E
	LENA1A	W
	LIDO1A	NW
	RESA1A	SW

3-4 GROUND DIAGRAM

TVSA:



ARG is a VOR station but is not yet operational.

3-5 AERODROME CONTROL

Argyle tower is responsible for the active runways and traffic operating within the Argyle ATZ.

J.F Mitchell tower is responsible for active runways and traffic operating within the J.F Mitchell ATZ.

Canouan tower is responsible for active runways and traffic operating within the Canouan ATZ.

Union Island tower is responsible for active runways and traffic operating within the Union Island ATZ.

No Aerodrome control service is provided in Mustique ATZ.

Due to high terrain at TVSA, circling to land WEST of RWY is not authorized. Right hand traffic pattern for RWY 04 & left-hand traffic pattern for RWY 22 is preferred.

3-6 ARGYLE APPROACH

Argyle Approach (TVSA_APP) is responsible for providing ATC services to aircraft operating in the Argyle CTR & TMA.

The transfer of control point between the approach and center controllers will be (departures) reaching FL130 and/or at the lateral boundaries of the TMA or (arrivals) reaching FL140 and/or at the lateral boundaries of Argyle TMA.

Aircraft departing and arriving at airports in the Grenadines islands shall maintain two radio communication with Argyle APP.

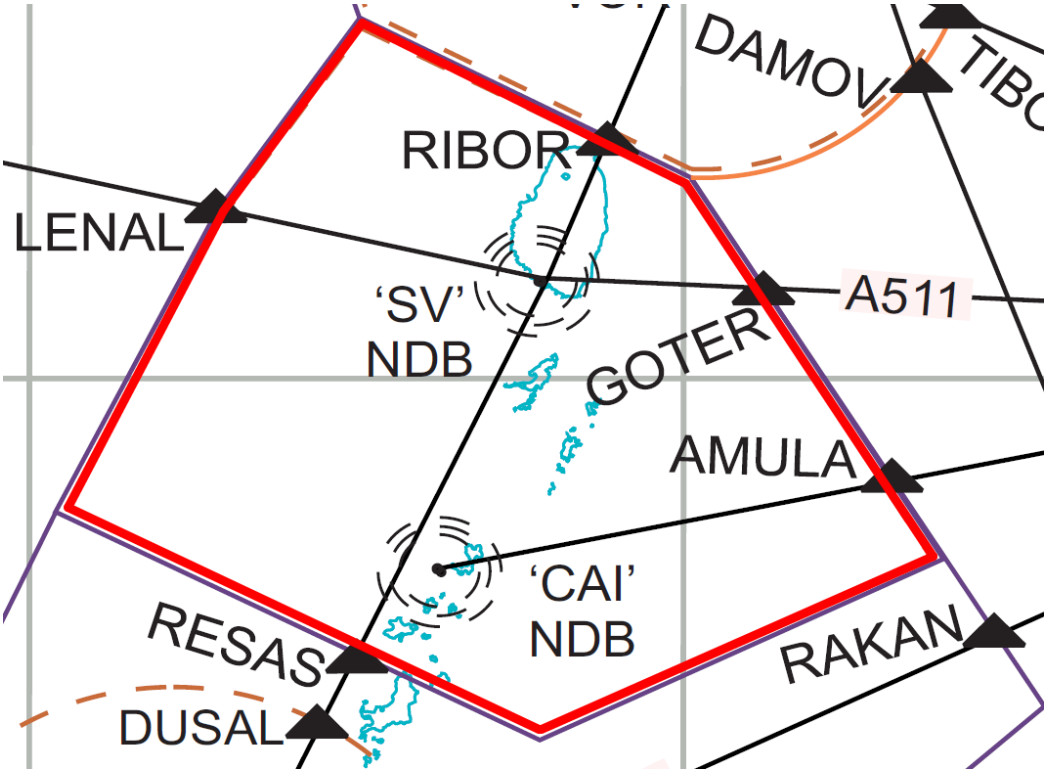
Minimum descent altitude for the island of St. Vincent is 5200 ft in the north, and 4200 ft in the south.

Minimum descent altitude over southern Grenadine Islands is 2700 ft.

3-6 ARGYLE APPROACH PT.2

ARGYLE CONTROL ZONE	
AIRSPACE	**VERTICAL LIMIT**
CLASS D	SFC – FL055
ARGYLE TERMINAL CONTROL AREA	
CLASS D	FL055 – FL135

Airspace Dimensions:



CHAPTER 4: MAURICE BISHOP TMA

4-1 AERODROME SPECIFICATIONS – MAURICE BISHOP (TGPY)

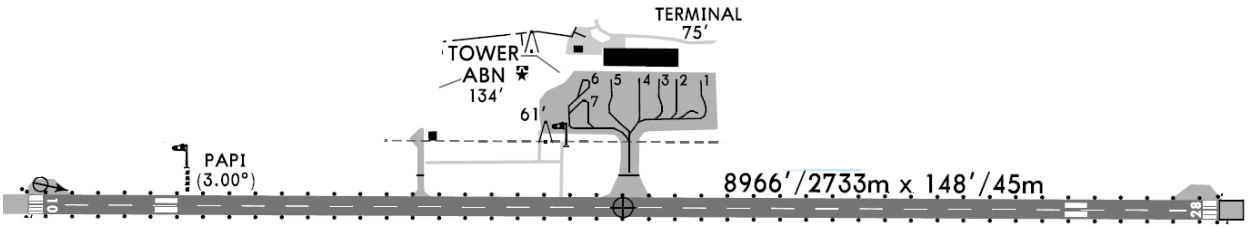
AIRSPACE (CTR)	**CLASS E**
ELEVATION	**45 FT**
LATERAL DIMENSION	**30 NM**
VERTICAL DIMENSION	**SFC – FL055**
PATTERN ALTITUDE	**1000 FT AGL**
TRANSITION ALTITUDE	**4000 FT**
STANDARD FLOW	**EAST**

4-2 OPERATIONAL POSITIONS

POSITION	IDENTIFIER	FREQUENCY
TGPY_GND	MAURICE BISHOP GROUND	121.900
TGPY_TWR	MAURICE BISHOP TOWER	118.900
TGPY_APP	MAURICE BISHOP APPROACH	119.400

4-3 GROUND DIAGRAM

TGPY:



4-4 AERODROME CONTROL

Maurice Bishop tower is responsible for the active runways and traffic operating within the Maurice Bishop CTR.

Departure Procedures:

RWY10 Northbound aircraft shall visually climb on RWY heading to 400 ft, turn right track 120 degrees GND to 2800 ft then on course to track between segments 276 and 095 degrees clockwise.

RWY10 Southbound aircraft shall visually climb on RWY heading to 400 ft, turn right on course to track between segments 096 to 275 degrees clockwise.

Circle to land authorized south of extended centerline RWY10 only.

4-5 MAURICE BISHOP APPROACH

Maurice Bishop Approach (TGPY_APP) is responsible for providing ATC services to aircraft operating in the Maurice Bishop CTR & TMA.

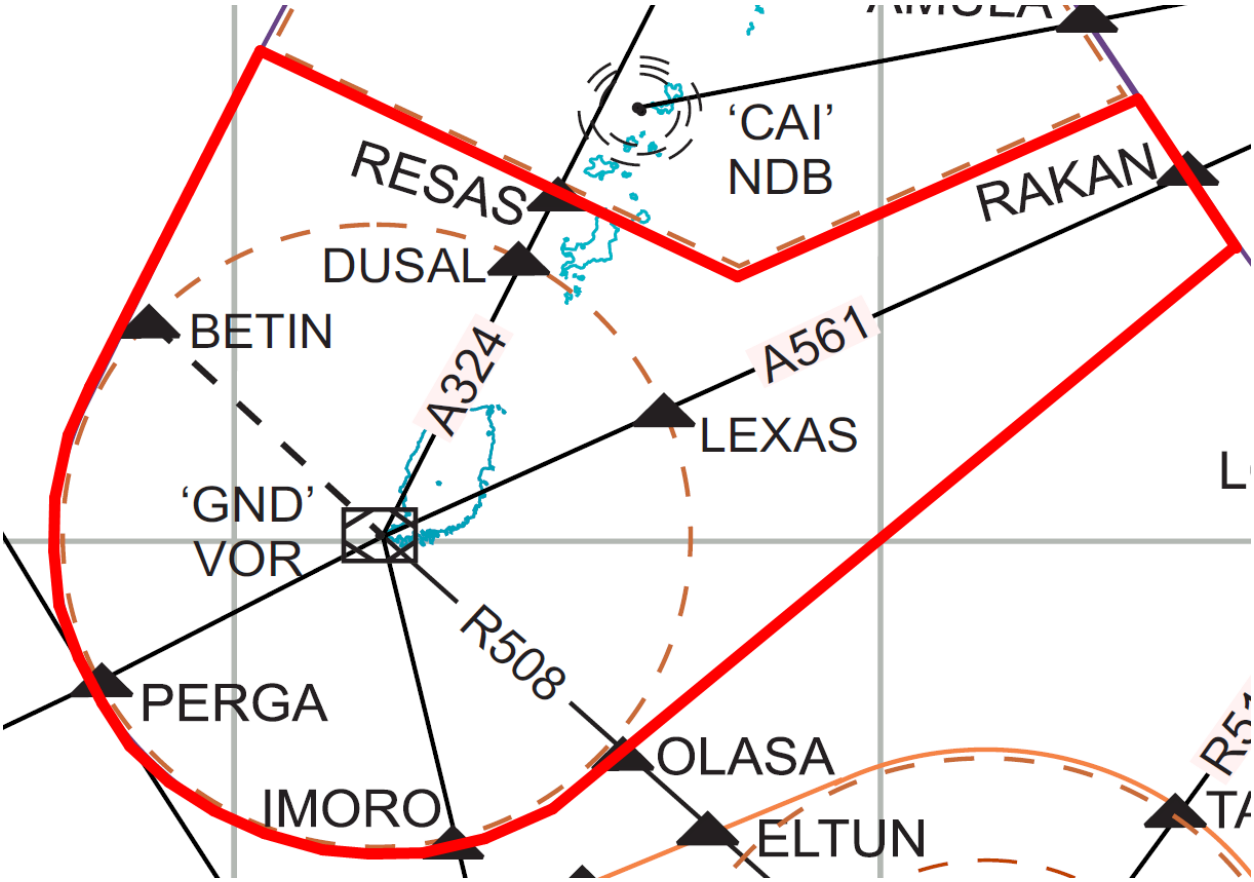
The transfer of control point between the approach and center controllers will be (departures) reaching FL130 and/or at the lateral boundaries of the TMA or (arrivals) reaching FL140 and/or at the lateral boundaries of Argyle TMA.

No aerodrome control service provided at Lauriston airport (TGPZ).

4-5 MAURICE BISHOP APPROACH PT.2

MAURICE BISHOP CONTROL ZONE	
AIRSPACE	**VERTICAL LIMIT**
CLASS E	SFC – FL055
MAURICE BISHOP TERMINAL CONTROL AREA	
CLASS E	3000 FT – FL135

Airspace Dimensions



PIARCO
Flight Information Region

PIARCO CENTRE
STANDARD OPERATING PROCEDURES

TABLE OF CONTENT

CHAPTER 1: GENERAL INFORMATION

1-1 OPERATIONAL POSITIONS

POSITION	IDENTIFIER	FREQUENCY
TTZP_CTR* (COMBINED)	PIARCO RADAR	123.700
TTZP_N_CTR (NORTH SECTOR)	PIARCO RADAR	
TTZP_S_CTR (SOUTH SECTOR)	PIARCO RADAR	125.400
TTZP_E_CTR (EAST SECTOR)	PIARCO RADAR	124.000
TTZP_W_CTR (WEST SECTOR)	PIARCO RADAR	133.100
TTZO_FSS	PIARCO OCEANIC	126.500

1-2 BEACON CODES

NORTH SECTOR	3001 – 3077
SOUTH SECTOR	6001 – 6077

CHAPTER 2: CONTROL AREA

2-1 AIRSPACE

Vertical Specifications:

TTZP CTA (EXCLUDES ALL TMAS)	
LOWER FIR – CLASS G	SFC – FL055
LOWER CONTROL AREA – CLASS E	FL055 – FL195
LOWER CONTROL AREA – CLASS A	FL195 – FL245
UPPER CONTROL AREA – CLASS A	FL245 – UNL

Lateral Specifications:

Piarco FIR is split into 6 different sectors:

N – North Sector

NE – North East Sector

NW – North West Sector

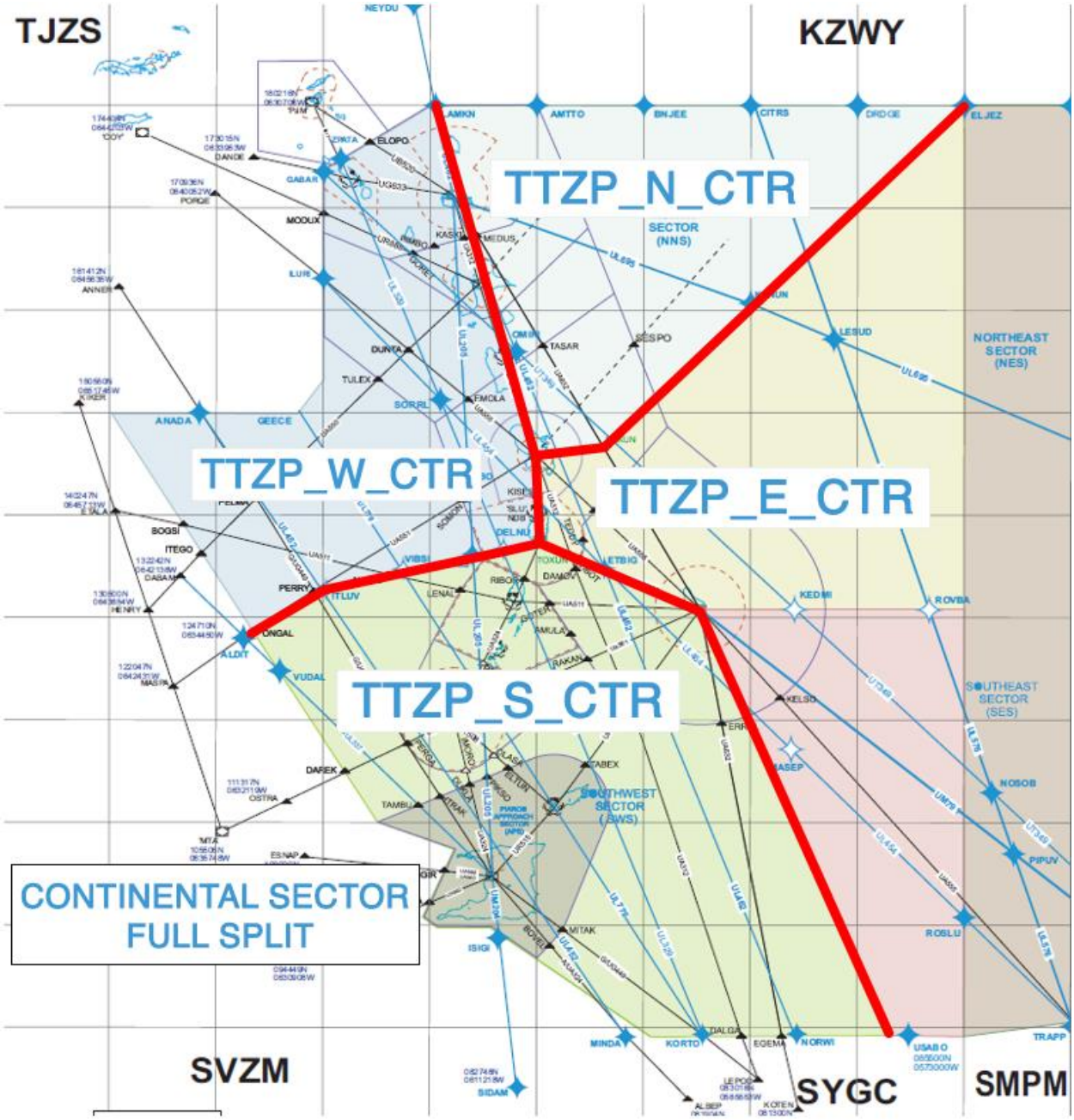
SE – South East Sector

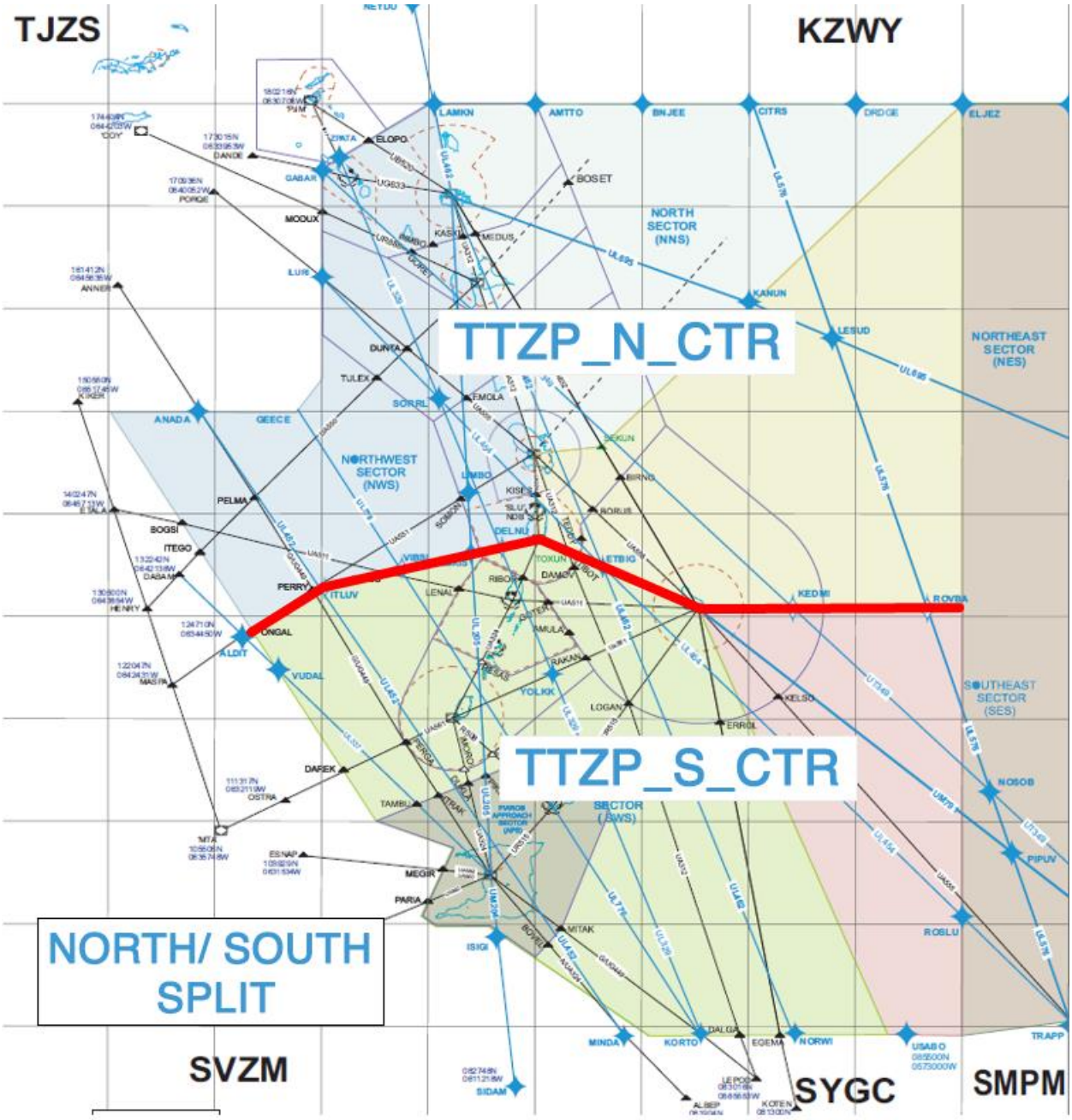
SW – South West Sector

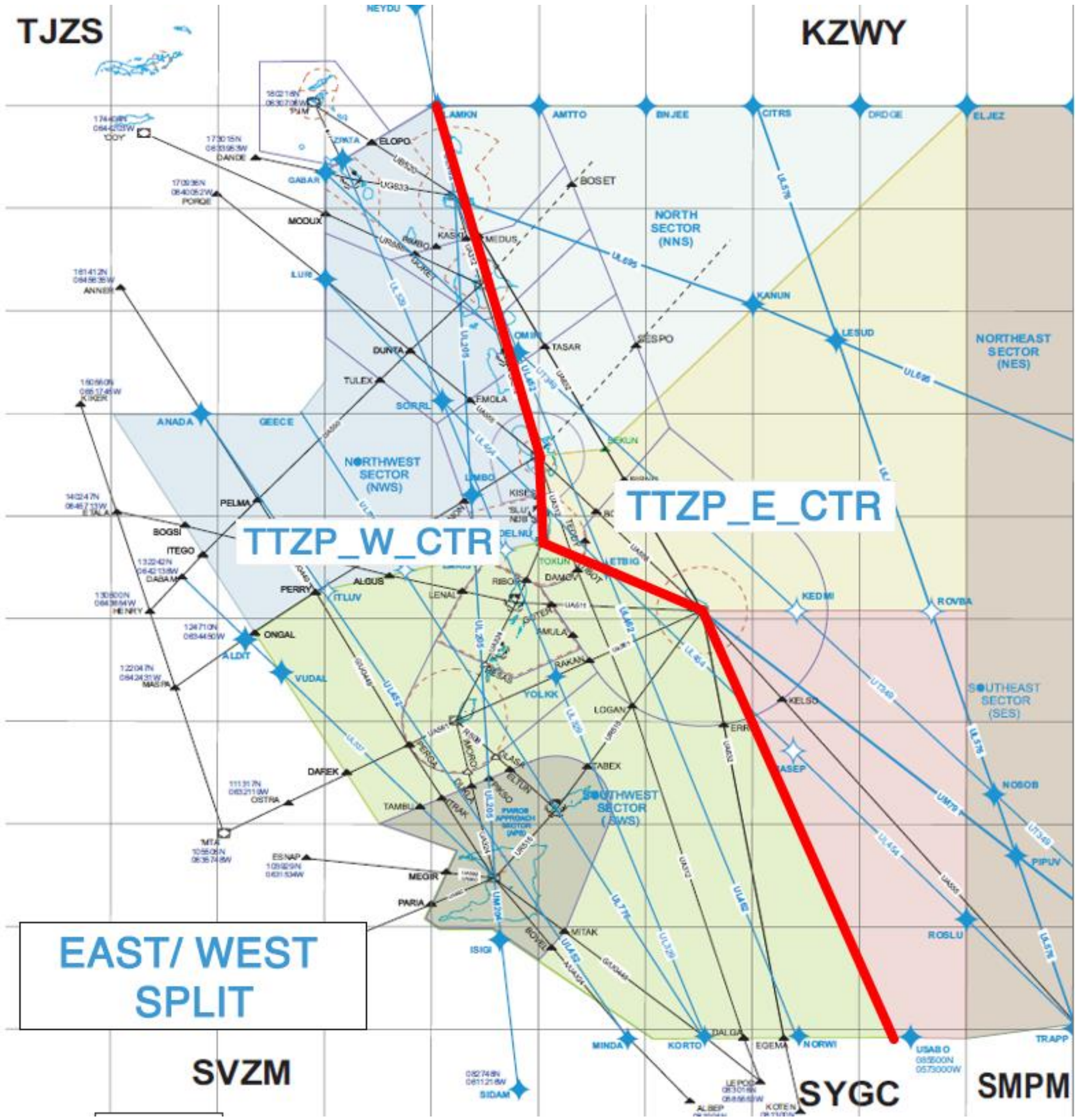
EO – Eastern Oceanic Sector

Traffic levels within the FIR lack the density to simulate the full use of all sectors. In case the FIR becomes congested controllers may split the Area control into five (5) sectors. (North/ South/ East/ West/ Oceanic)

Piarco Radar/ Continental Sector:




TJZS
KZWY
TTZP_N_CTR
TTZP_S_CTR
NORTH/ SOUTH SPLIT
SVZM
SYGC
SMPM
NORTH SECTOR (NNS)
NORTHEAST SECTOR (NES)
NORTHWEST SECTOR (NWS)
SOUTHEAST SECTOR (SES)
SECTOR (SWS)
LAMKN
AMTTO
BNJEE
CITRS
DRDGE
ELJEZ
ZIATA
ELOPO
GABAR
BOSET
MODUX
KASKI
MEDUS
ILUSI
KANUN
LESUD
DUNTA
TULEX
SORRL
FMOLA
ANADA
GEECE
LIMBO
KISIL
BIRNO
BORUS
PELMA
BOGSI
ITEGO
DELNU
TOXUN
LETBIG
PERRY
ITLUV
RIBOS
DAMOV
KEDMI
ROVBA
ONGAL
ALDIT
VUDAL
AMULA
RAKAN
YOLKK
LOGAN
KELSO
ERROL
DAREK
TAMBU
MEGIR
PARIA
MITAK
ISIGI
NOSOB
PIPUV
ROSLU
TRAPP
MINDA
KORTO
DIALGA
EGEMA
NORWI
USABO
SIDAM


TJZS
KZWY
NORTH SECTOR (NNS)
NORTHEAST SECTOR (NES)
NORTHWEST SECTOR (NWS)
TTZP_E_CTR
TTZP_W_CTR
SOUTHEAST SECTOR (SES)
SOUTHWEST SECTOR (SWS)
EAST/ WEST SPLIT
SVZM
SYGC
SMPM

2-2 TRANSFER OF CONTROL

The transfer of control point between Piarco center and adjacent facilities will be upon aircraft reaching the vertical and lateral boundaries of the TMA/FIR.

When an aircraft is being transferred from one ATS authority to another, notify the aircraft that their ATC/radar services are terminated.

Terminal Control Area:

Piarco TMA – Departures FL150 & Arrivals FL160

Adams TMA – Departures FL240 & Arrivals FL250

Martinique TMA – Departures FL240 & Arrivals FL250

Point a Pitre TMA – Departures FL240 & Arrivals FL250

V.C Bird TMA – Departures FL240 & Arrivals FL250

Argyle TMA – Departures FL130 & Arrivals FL140

Maurice Bishop TMA – Departures FL130 & Arrivals FL140

Adjacent FIRs:

KZWY – New York OCA

SVZM – Maiquetia FIR

SYGC – Georgetown FIR

TJZS – San Juan CERAP

CHAPTER 3: SEPARATION OF AIRCRAFT

3-1 VERTICAL SEPARATION MINIMA

Below FL410 – 1000 ft

Above FL410 – 2000 ft

3-2 LATERAL SEPARATION MINIMA

Minimum lateral separation shall be 100 nm between aircraft in the Piarco FIR continental sector & 120 nm between aircraft in the Piarco FIR oceanic sector except the lower minima in Doc. 4444 PANS/ATM (Ch. 5.4) may be applied or further reduced separation where the conditions specified in Ch 5.11 are met.

The lower minima for separation between aircraft within the continental sector is 10–15 NM.

The separation minima between overflights on RNAV5 routes shall be 30 NM lateral spacing.

Where radar is the means of confirming initial aircraft positions and track will diverge until other lateral separation is achieved, additional track separation criteria shall be:

DISTANCE BETWEEN TRACKS	MINIMUM DEGREE DIVERGENCE
5 NM	30°
10 NM	20°
15 NM	15°
20 NM	10°

3-3 LONGITUDINAL SEPARATION MINIMA

Minimum longitudinal separation shall be 15 minutes between aircraft operating below FL200 in the Piarco FIR continental sector and between aircraft operating at all levels in the Piarco FIR oceanic sector.

CHAPTER 4: OCEANIC PROCEDURES

4-1 OVERVIEW

IFR flights entering oceanic airspace are subject to an oceanic clearance and shall provide position reports upon crossing each waypoint during their oceanic route.

Aircraft exiting the Piarco FIR to enter the New York OCA shall request/receive an oceanic clearance from Piarco radar at least 30 minutes prior to reaching the TTZP/KZWY boundary.

4-2 OCEANIC CLEARANCE

Oceanic clearances shall be given in the following format:

[CLEARANCE LIMIT] [ROUTE] [FLIGHT LEVEL] [MACH #]

Phraseology example:

FWI43M: Piarco radar, FWI43M passing FL190 for FL370.

TTZP_CTR: FWI43M, Piarco, radar contact, continue climb FL370 and copy oceanic clearance.

FWI43M: Ready to Copy.

TTZP_CTR: Piarco control clears FWI43M to LFPO via BNJEE 27N055W 34N050W 38N045W 41N040W 43N035W 44N030W 47N020W 48N010W ETIKI then as filed, maintain FL370, mach 0.80.

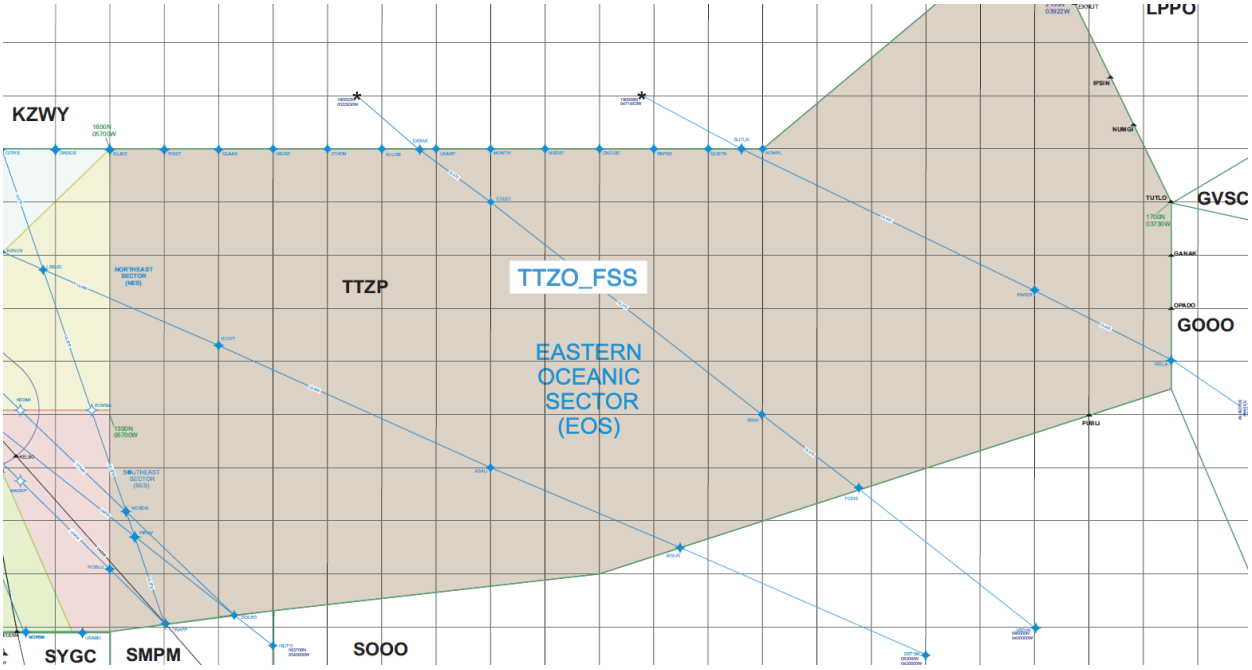
FWI43M: [Reads back clearance]

TTZP_CTR: FWI43M, readback correct, say estimated time to cross BNJEE.

FWI43M: Estimating BNJEE at 0230Z.

TTZP_CTR: FWI43M, roger.

4-3 OCEANIC SECTOR



Communications:

ADS-C (Automatic Dependent Surveillance – Contract) uses systems on board the aircraft to automatically transmit information such as the aircraft's position, altitude, speed, navigational intent & meteorological data which can be sent to one or more specific ATS unit for surveillance and/or route conformance monitoring. ADS-C is used as the primary means of position reporting in Piarco oceanic airspace. All aircraft flying on VATSIM continuously send aircraft position, altitude, and speed data to VATSIM servers which are available to the controller in the ATC client. ADS-C is simulated by using the "assume" function of the Euroscope client.

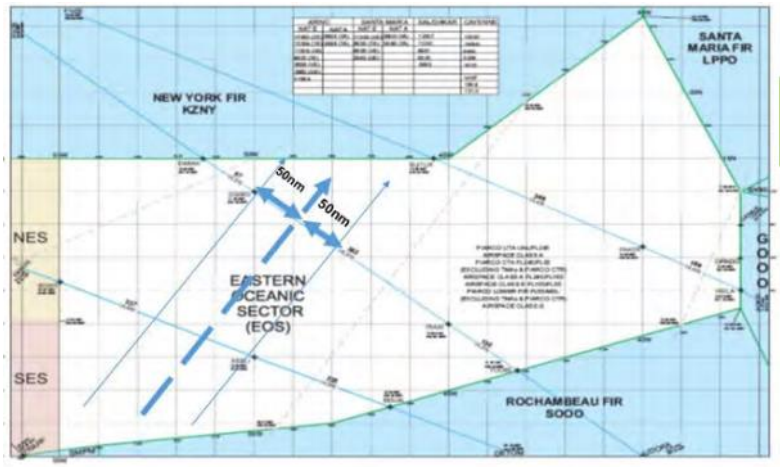
CPDLC (Controller Pilot Data Link Communication) is a two-way data link system by which controllers can transmit messages to an aircraft as an alternative to voice communications. The message is displayed on a flight deck visual display. CPDLC can be simulated via the on-frequency text chat. Piarco FIR does not currently use any alternative software to simulate CPDLC or ADS-C on VATSIM.

Due to limitations of the Euroscope client we are only able to display a VHF primary frequency.

Performance Based Separation Minima:

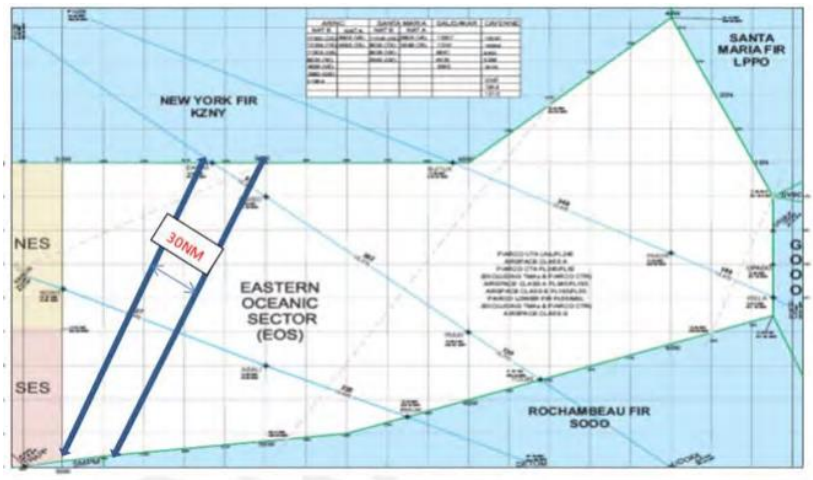
The following separation minima may be used for aircraft cruising, climbing or descending on the same track or crossing tracks provided that the relative angle between the tracks is less than 90 degrees.

SEPARATION MINIMA	REQUIRED NAVIGATION PERFORMANCE	MAX ADS-C REPORTING INTERVAL
50 NM	RNP 10	27 MINUTES
	RNP 4	32 MINUTES
30 NM	RNP 2 OR 4	12 MINUTES
5 MINUTES	RNP 2, 4, OR 10	14 MINUTES



RNAV 10 will enable a reduction from 100nm to 50nm lateral separation *(short term)*

Longitudinal separation shall be:
Fifteen (15) minutes , or
The application of Mach number technique based on time. (ICAO DOC 4444 Section 5.4.2.4).



RNP 4 WILL ENABLE A REDUCTION FROM ***50NM TO 30NM*** LATERAL SEPARATION and ***30NM*** LONGITUDINAL SEPARATION MINIMA

Position Reports:

Pilots shall make position reports using the following format:

[LAST FIX CROSSED] at [TIME CROSSED], [ALTITUDE], [MACH#], estimating [NEXT FIX] at [TIME], [NEXT FIX] thereafter.

Phraseology example:

KLM713: Piarco, KLM713 position.

TTZO_FSS: KLM713, pass your message.

KLM713: 16N050W at 2020Z, FL400, mach .78, estimating 090N054W at 2100Z, TODOL thereafter.

TTZO_FSS: KLM713, [Reads back position report].

Adjacent FIRs:

GOOO – Dakar Oceanic UIR

GVSC – Sal Oceanic FIR

KZWY – New York OCA

LPPO – Santa Maria OCA

SMPM – Paramaribo FIR

SOOO – Cayenne FIR

CHAPTER 5: COORDINATION

5-1 ADJACENT TMAs

For all aircraft departing an airport within the Piarco FIR requesting a final cruising altitude above FL245, the controller providing clearance delivery shall coordinate with Piarco Area Control Centre for push & start and flight level approval.

For aircraft arriving at an airport where radar approach surveillance is provided, the centre controller shall use the ‘transfer’ function on their ATC client at the prescribed transfer of control point (2-2).

Aircraft arriving at an airport where procedural approach control is provided, Piarco Area Control Centre shall coordinate the pilot’s distance, inbound radial, time to cross the TMA boundary/fix & flight level via text chat or discord call and handoff via voice on frequency.

Example 1:

TAPA_GND: Piarco radar, Bird.

TTZP_CTR: Bird, Piarco radar.

TAPA_GND: BAW2157 destination Piarco Int’l via UL205, requesting FL350.

TTZP_CTR: FL350 is approved.

TAPA_GND: copy, thanks.

Example 2:

TTZP_CTR: Argyle, Piarco radar.

TVSA_APP: Piarco, Argyle.

TTZP_CTR: BWA553 is proceeding direct to SV, 130 miles north-west, FL330, and estimating SV at 1730Z, do you have any requests or restrictions?

TVSA_APP: Copy, BWA553, direct to MIXUV and descend to FL060 approved.

TTZP_CTR: Okay, direct MIXUV and FL060.

TVSA_APP: Correct.

5-2 ADJACENT FIRs

Aircraft exiting Piarco FIR to enter other adjacent FIRs shall coordinate as follows:

For handoffs to ATS facilities where radar surveillance is provided, coordinate information relevant to the aircraft's flight plan via text chat or VATCAR discord voice channels. Use the 'transfer' or 'point-out' function on your ATC client before verbally handing off the aircraft to the adjacent area control center.

For handoffs to oceanic and procedural control facilities provide distance, ETA to cross the FIR boundary/fix, speed & flight level.

Example:

TTZP_CTR: San Juan center, Piarco radar.

SJU_CTR: Piarco, San Juan center, go ahead.

TTZP_CTR: AAL1089 estimates ILURI at1935Z, currently 20 miles to the east at FL360.

SJU_CTR: Roger, radar contact.