VATSIM CENTRAL AMERICA - VATCA

MPZL_CTR / FIR & MPTO
Standard Operating Procedures

RECORD OF CHANGE

Modified by	Version / Date	Modification
Patrick Gligo	1.0 / Jul-21-2020	Initial Release
Greg Waid	2.0 / Feb-01-2023	New Format & minor updates

TOCUMEN (MPTO) SOPs

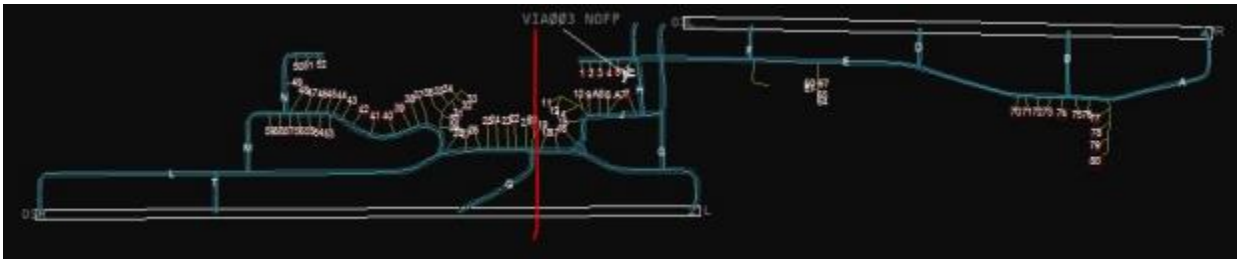
Clearance Delivery

Clearances

● All RNAV departures are assigned one of the following SIDs: OREPI(1B/1A), SIMAN(2B/2A), EGETA(2B/2A), or RNP 03L/RNP03R.
● SIDs containing 2A are for 03R, SIDs containing 2B are for 03L.
● Non-RNAVs are to expect radar vectors to their initial fix or airway.
● Regardless of departure procedure or runway, an initial altitude of 5,000 is always assigned.
● If departing from 21L or 21R (coordinate with the controller above if online before assigning 21L or 21R when not in the 21s config) aircraft are to be told to expect radar vectors to their initial fix or airway.
● Departure frequency will always be Panama Approach (119.700 is the primary frequency). In case of an Approach/Departure sector split (MPTO_APP & MPTO_DEP). Departure frequency will be 119.200. If Panama Approach is not online, departure frequency will be whichever Panama Control is controlling the Panama TMA (133.000 if only MPZL_CTR is online).
● VFR Departures are to be cleared a direction of flight, given a squawk code and uponreadback a runway to expect.

Runway Assignment

● Runways are assigned depending on position on the ground and workload.
● As a general rule, due to traffic flow in a 03L/03R configuration, aircraft on stand to the left of taxiway Q go to 03R, and to the right of Q go to 03L.
● If the 21s Config is in use, all departures are to expect 21L.



Examples of Clearances

● COPA480, cleared to Bogota via the EGETA2A departure, initial altitude 5000, departure frequency is (depends on who is online) and squawk 0155.
● After readback is received, either push at your discretion or call for push is given (See Ground Control Section) and the runway they can expect.

Ground Control

Pushback Procedures

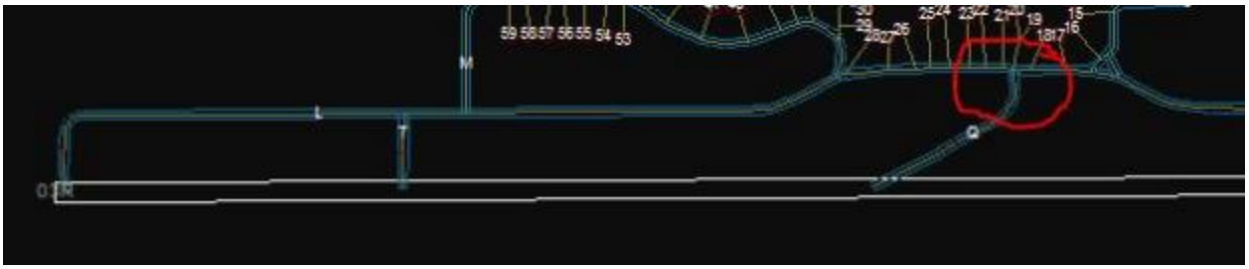
● Aircraft pushing onto taxiways A, E, L and J are to be told to report when ready to push after their IFR clearance readback.
● Aircraft pushing into any other taxiways can be told to push at their discretion if workload permits.

Taxiflows

● Up to the controller's discretion.
● QNH is to always be given on initial taxi instructions.

Recommendations

● The intersection of taxiway Q and L is to be always left clear for traffic arriving on 03R, if it is blocked expect arriving traffic to exit 03R at the end where L starts.

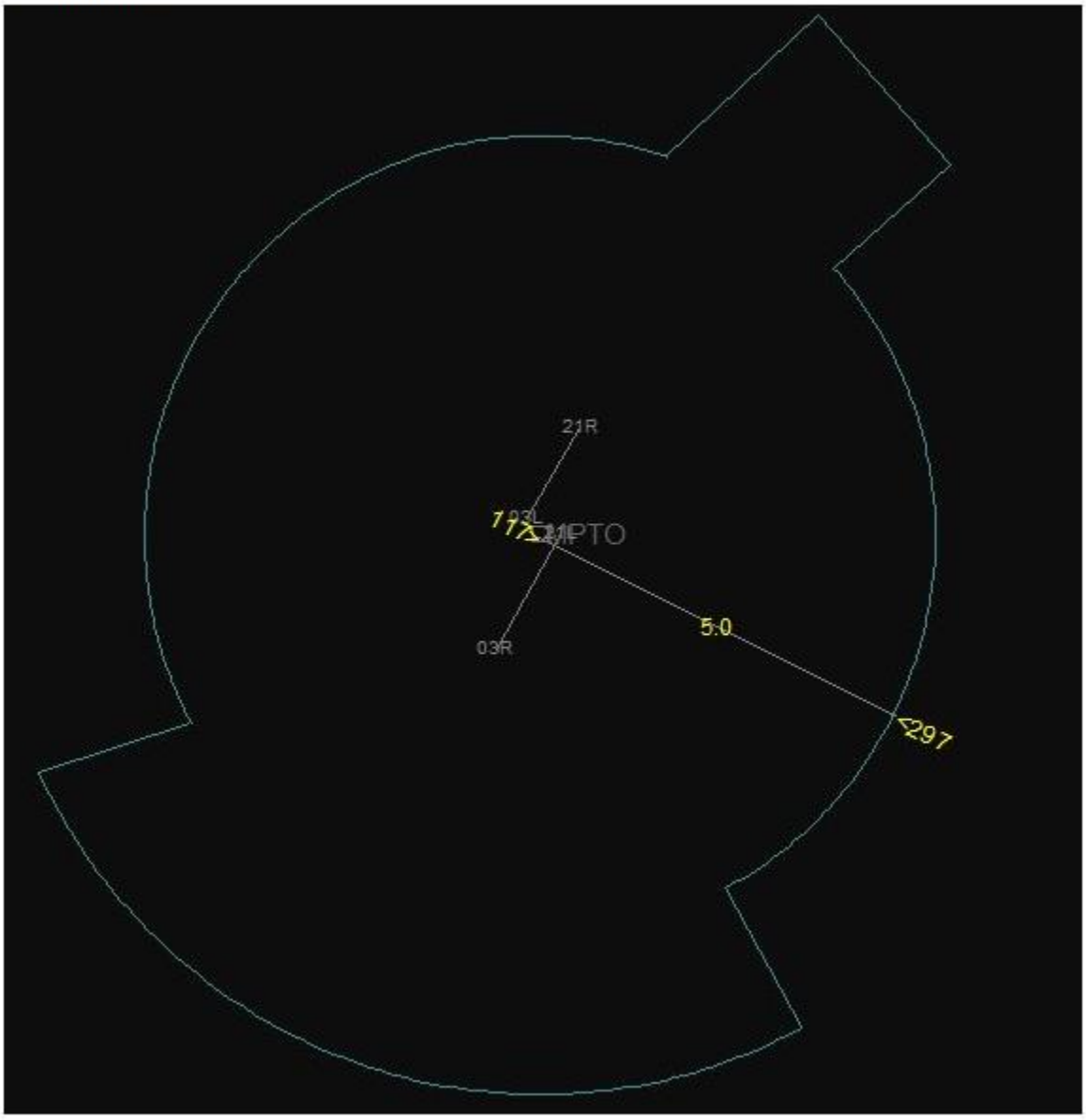


Example of taxi instructions:

● COPA480 taxi to holding point 03R via L, QNH1010.

Local Control

- **Airspace**



- Up to 5000ft AGL.

- **Active Runway Config**

03s Config (Preferred)

Runway	Use
03L	DEP, ARR
03R	DEP, ARR (Preferred arrival runway)

21s Config

Runway	Use
21L	DEP ONLY
21R	ARR ONLY

- Unless the tailwind component is 15 knots or greater, aircraft are to land and depart from runways 03R and 03L. This is because the 03s configuration is preferred, as it is the only one with STARs and ILS available. Airport capacity is at its highest in the 03s configuration.
- An aircraft can be given 21L or 21R for departure upon request whilst in the 03s config as long as traffic permits and it is coordinated with approach (or Control in case approach is offline).
- Due to being the only runway with ILS and being the closest to the passenger terminals, 03R is the preferred runway for arrivals.

Patterns

- **ONLY** right hand patterns on 03R are permitted due to terrain to the north of Tocumen
- Pattern altitude is 1,500.
- If unable to comply with these restrictions, or the controller is not willing due to traffic load, traffic can be sent to MPMG.

Takeoff Clearances

- Aircraft departing runways 03L, 03R without an RNAV departure are to be assigned to fly a heading of 090.
- Aircraft departing 21L or 21R are to be assigned runway heading upon departure.
- Aircraft departing with an RNAV procedure are simply told the winds and cleared for takeoff.
- Unless the controller above states otherwise, departures **do not** need to be released.

OTHER AIRPORTS

Inside of the Panama TMA

Applies to MPMG, MPPA, MPSM and MPEJ

Clearances:

- All departures are to expect radar vectors to initial fix or airway.
- Initial altitudes will be within the Approach (or Control if approach is offline) controller's discretion. If staffing a tower position, ask the controller above for the initial altitude. If no controller is staffing a radar position above, assign 7,000.
- Departure frequency will always be Panama Approach (119.700 is the primary frequency). In case of an Approach/Departure sector split (MPTO_APP & MPTO_DEP) Departure frequency will be 119.200. If Panama Approach is not online, departure frequency will be whichever Panama Control is controlling the Panama TMA (133.000 if only MPZL_CTR is online).

Taxiflows

- Controller's discretion.

Runway Use

- Controller's discretion.
- North ops will always be preferred to fit better with the flow at Tocumen.
- Patterns at MPMG shall be done with Runway 01, right turns at 1,500ft.
- Patterns at MPPA shall be done with Runway 36, left turns at 1,500ft.

Outside of the Panama TMA

Applies to MPDA, MPBO. All other fields are uncontrolled

Clearances

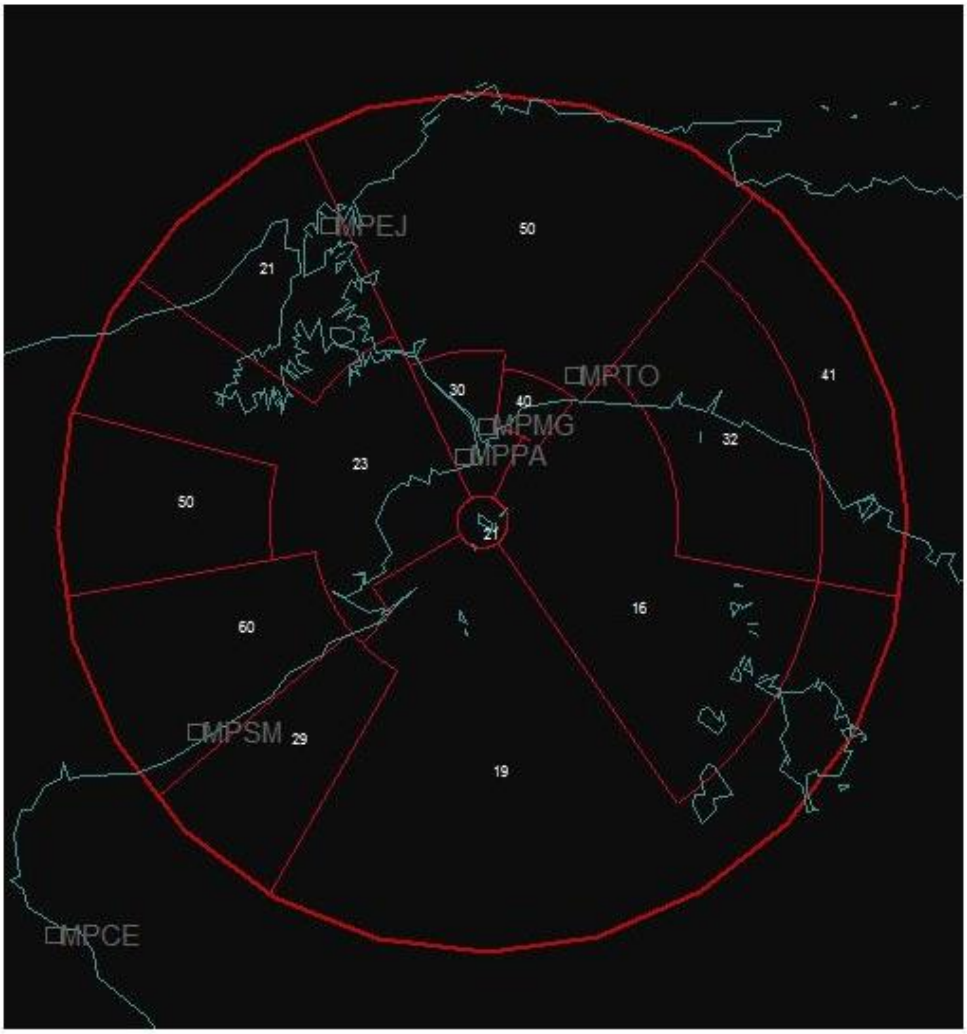
- All departures are to expect radar vectors to initial fix or airway.
- Initial altitudes are to be coordinated with Panama Control, if they are not online, assume an initial altitude of 15,000 for all airports.
- Departure frequency will always be 133.000 (Panama Control) no matter what sector splits Control has going.

Taxiflows & Runway Use

- Controller's discretion.
- RWY 04 is the preferred active at MPDA.

PANAMA APPROACH

Airspace & Responsibilities



- The Panama Approach airspace is defined as a circle with a 50nm radius around the TBG VOR going from SFC to 14,500 when no controller below is online.
- Provides top-down coverage for MPTO, MPMG, MPPA, MPSM and MPEJ.

Tocumen Arrivals

Prefered Approaches

RUNWAY	APPROACH TYPE	APP. TRANSITION FIX
03R	ILS Y	IRUSO, NELEX, BOBUD
03R	ILS	TBG
03L	VOR DME	TUM, ESDOM
21R	RNAV (GNSS)	USANI, UGIBA, MUDEN
21R	RNP Z	TC105, ISUMI, TC110, ROBUD, UREMO, AKRIN

All arrivals will enter via one of the STARs and will be descending via the published altitudes.

● Aircraft expecting the ILSY03R should be cleared for the approach via BOBUD, IRUSO or NELEX if the STAR ends at one of these fixes, if not they can expect vectors.

● Aircraft expecting the VOR DME 03L can be cleared for the approach at TUM or ESDOM, or given radar vectors to intercept the final approach.

Runway Assignment

● Due to 03L being the closest to the cargo ramp, it is highly recommended that all cargo aircraft be told to expect the RNAV 03L, this will shorten taxi once on the ground and reduce workload if no one is controlling local facilities at MPTO.

● 03R should be the primary arrival runway in the 03s config.

● 21R should be the only arrival runway in the 21s config.

Control Handoffs

- All arriving aircraft to MPTO should be given an initial descent altitude of 15,000ft.

● Expect all aircraft descending via STARs to be handed off between 18,000ft and 16,000ft.

● If an aircraft is not on a standardized arrival procedure, Panama Control shall notify before handing it off to the next controller.

Tocumen Departures

SIDs

SID	DIRECTION
SIMAN2A/2B	NORTH/NORTHWEST
EGETA2A/2B	NORTH/NORTHEAST
RWY 03L RNP	EAST
RWY 03R RNP	EAST

● All aircraft departing on a SID will converge at the fix of the same name as the SID itself
(ex. SIMAN2A & SIMAN2B will fly to SIMAN).
● All departures will be climbing to an initial altitude of 5,000ft.
● Usually, departures are instructed to climb to an altitude of 18,000, after passing 4,000ft, traffic permitting.

Departures During 21s Configuration

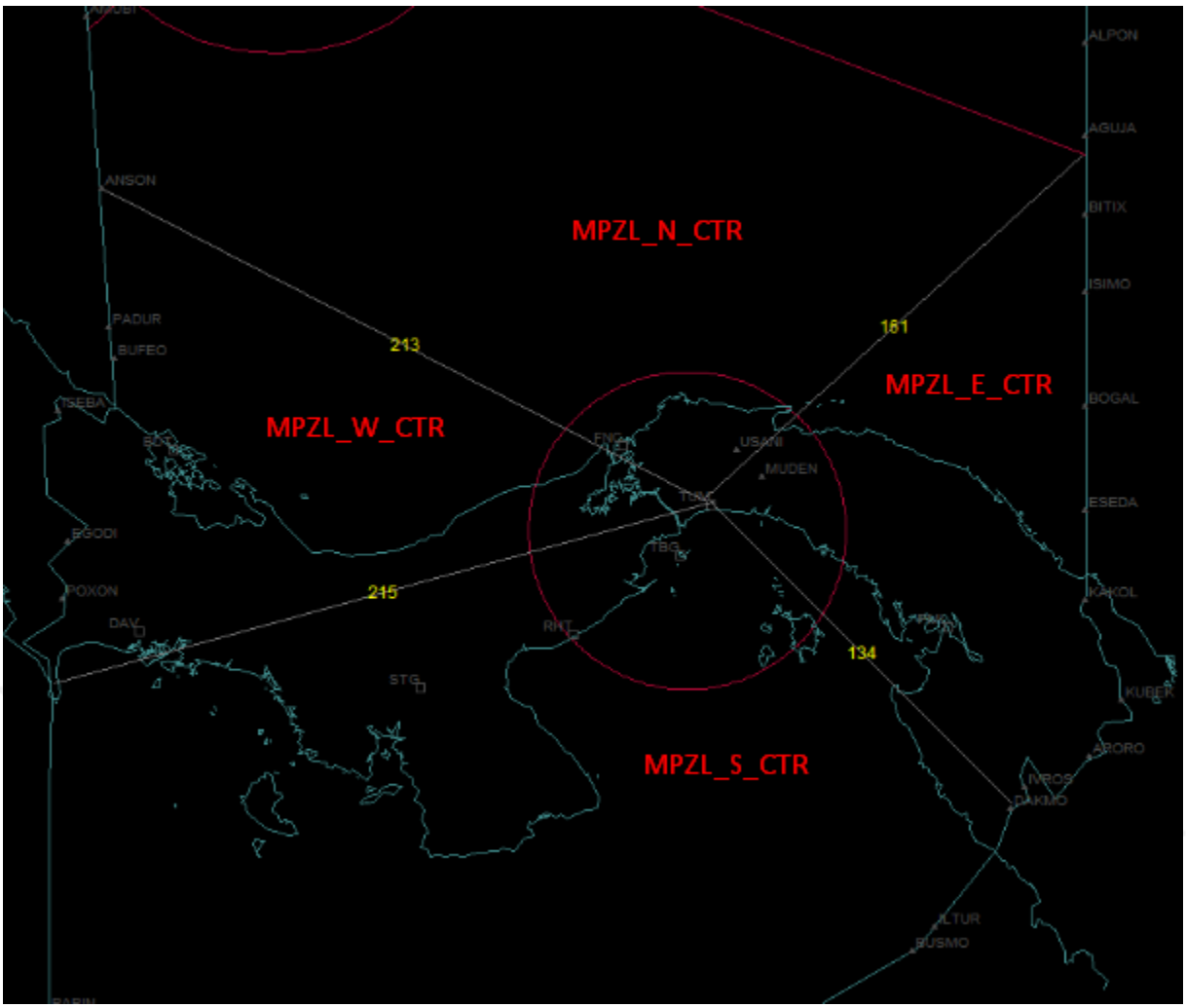
● Runways 21L and 21R do not have published SIDs, so all departures from these runways are instructed to fly runway heading on departure and have an initial assigned altitude of 5,000, they will expect vectors on course.

Non-RNAV Departures 03s Configuration

● All departures are assigned a heading of 090 by tower and are climbing to an initial assigned altitude of 5,000ft. They will expect vectors on course.

Control Handoffs

● Aircraft should be climbing to 16,000ft.
● All aircraft should be either on a SID or following their planned route prior to being handed off to Panama Control, if this is not the case then Panama Control shall be notified prior to handoff.
● Handoffs to Panama Control are usually done when an aircraft passes 12,000ft.
● All aircraft are handed off to 133.000, in case of a sector split, refer to the image below:



Satellite Airport Arrivals

● All arrivals flying into a satellite field within the Tocumen TMA (MPEJ, MPMG, MPSM, MPPA) will be vectored to the approach they expect, as none of these airports have STARs.

AIRPORT	PREFERRED RUNWAY	APPROACH TYPE
MPMG	01	RNAV VISUAL RWY 01
MPPA	36	RNP RWY 36 / RNP Z RWY 36 (AR) / RWY 18
MPSM	35	ILS RWY 35 / RNP RWY 35
MPEJ	36	RNP RWY 36

● Using the preferred runways at these airports facilitates traffic flow alongside the Tocumen (MPTO) arrivals.

Control Handoffs

● Control will notify you of all arriving traffic into a satellite field prior to hand off.

Satellite Airport Departures

● Initial altitude unless otherwise coordinated will be 7,000ft.
● All departures expect radar vectors to their initial fix.

Control Handoffs

● All departures must be following their planned route prior to leaving your airspace, if this is not the case then coordinate with Panama Control.

Sector Splitting

● MPTO_APP (primary) is 119.700
● MPTO_DEP is 119.200
● MPTO_APP handles all towered airport responsibilities but should hand off to MPTO_DEP once traffic is airborne.
● Both sectors shall be restricted to the same airspace boundaries.
● Non standard routing (VFR traffic, non RNAV departures, arrivals not on a STAR) shall be briefed between controllers. Otherwise traffic is expected to follow SOPs.
● VFR traffic landing into Tocumen shall talk to MPTO_FSS (Panama Traffic Advisory/Panama Asesoramiento) at all times (if online).

Callsign	Frequency	Distribution/Responsibilities
MPTO_APP	119.700 MHz	Handles all IFR arrivals into the Panama TMA
MPTO_DEP	119.200 MHz	Handles all IFR departures out of the Panama TMA
MPTO_FSS	121.200 MHz	Handles all General Aviation & VFR traffic inside Panama/Tocumen TMA & flight plan amending/approval

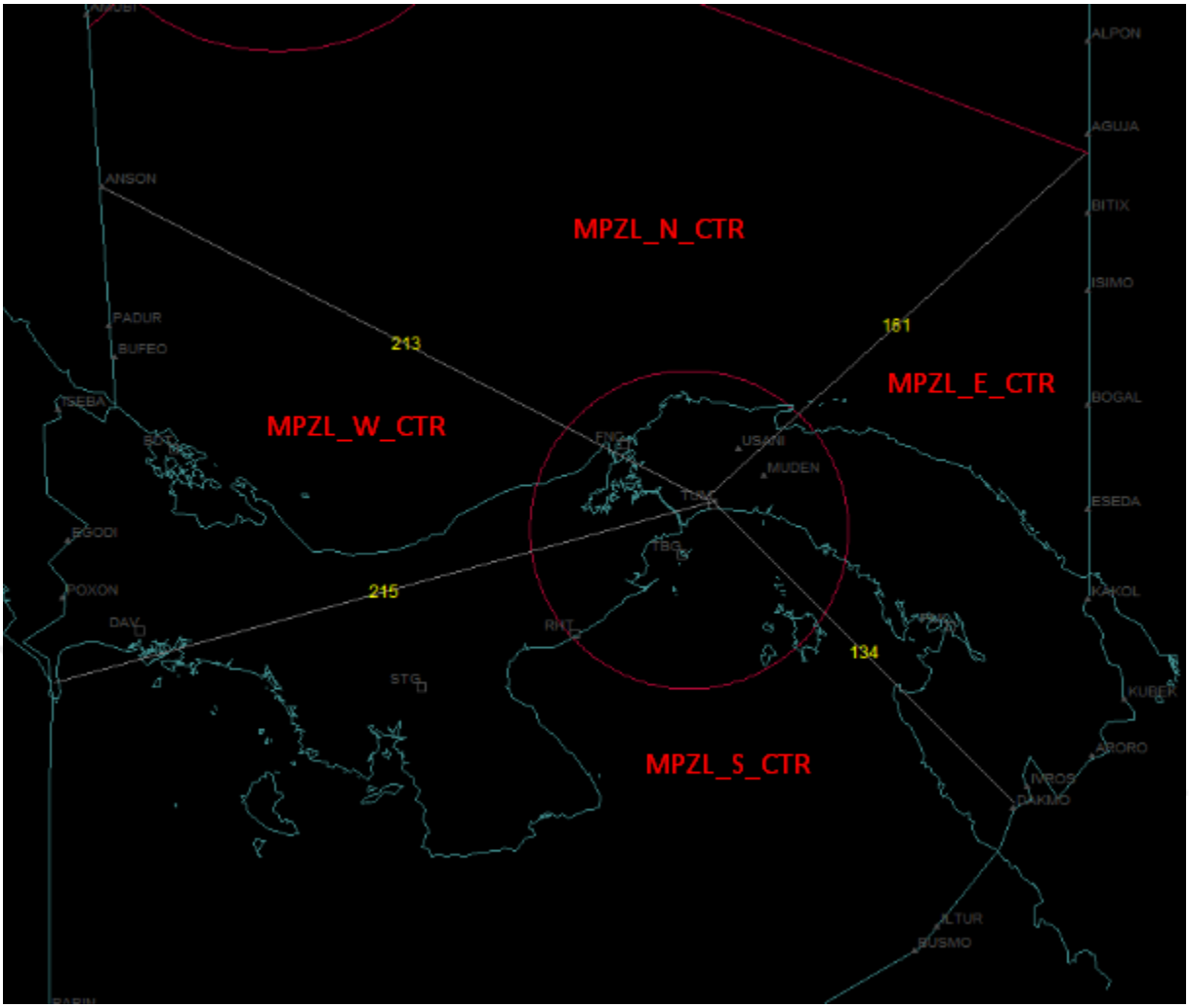
PANAMA CONTROL

Airspace & Responsibilities

● Panama Control is bordered to the north by Kingston Radar, to the east by Barranquilla and Bogota Control, to the south also by Bogota Control and to the west by Cenamer.
● Panama Control does NOT cover the San Andres (SKSP) TMA. (See San Andres TMA section).
● Panama Control provides top-down coverage to all controlled airfields within Panamanian Airspace.
● Panama Control (as in the real world as well) provides Approach services to airports outside of the Tocumen TMA (MPDA, MPBO).
● Class F airspace airspace is anything under 10,000ft outside of a CTR, or TMA. In Class F airspace ATC is still provided to IFR traffic but not to VFR traffic unless the VFR traffic requests it.

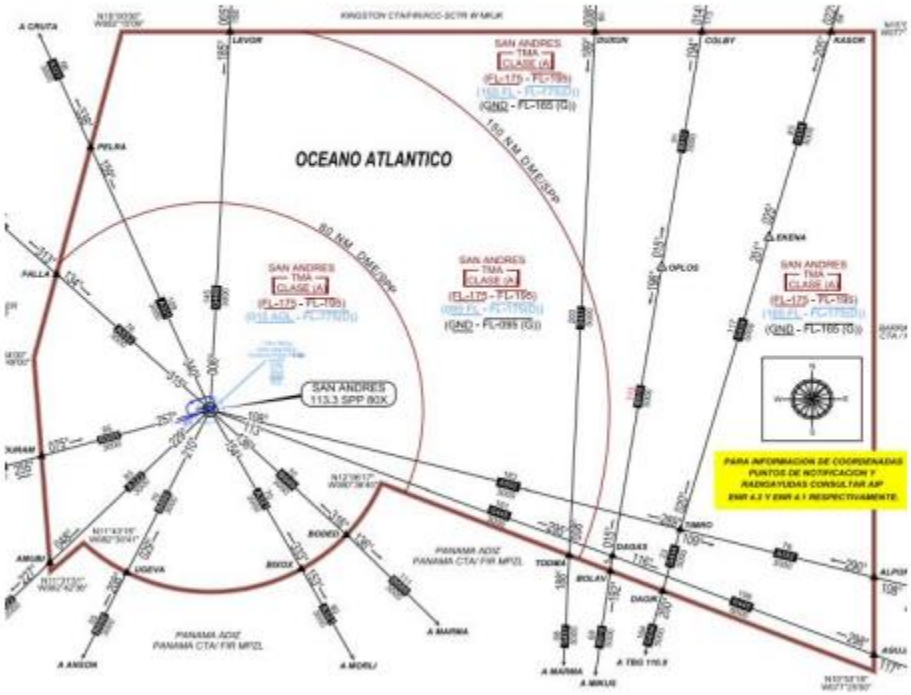
Sector Splitting

North/South


MPZL_N_CTR
MPZL_W_CTR
MPZL_E_CTR
MPZL_S_CTR
213
161
215
134
ALPON
AGUJA
ANSON
BITIX
ISIMO
PADUR
BUFEO
TSEBA
BOGAL
USANI
MUDEN
ESEDA
BGODI
POXON
DAV
RHT
STG
KAKOL
KUBER
ARORO
IMPOS
DAKMO
ALTUR
BUSMO

- The main split configuration for Panama Control is North/South.
- Responsibilities for the Tocumen TMA may be delegated in the following ways if MPTO_APP is not online:
  - South Sector takes control of the TMA

San Andres TMA



● Panama Control does NOT provide services to the San Andres TMA.
● All SKSP arrivals shall be instructed to descend to FL200 (20,000ft), and be given the San Andres altimeter. Once the traffic is passing FL250 send them to unicom or SKSP_APP if online.

- For aircrafts departing San Andres when SKSP_APP is offline, they should contact MPZL_CTR passing through FL230 (23,000ft).

Tocumen Descent Table

STAR	DESCENT INSTRUCTION	RUNWAY(S)	APPROACH TYPE	TRANSITION FIX TO RWY 03R
ARKIN 1	DESCEND VIA	03R & 21R	RNP 03R	MEVID
BUSON 1	DESCEND VIA	03R & 21R	RNP 03R	ROBUD
VALIS 1	DESCEND VIA	03R & 21R	RNP 03R	TC105
ISOKO 1	DESCEND VIA	03L/03R & 21R	ILS Y 03R	BOBUD
OSUPA 1A	DESCEND VIA	21R	RNAV (GNSS) 21R	ONLY RWY 21R
OSUPA 1B	DESCEND VIA	03L / 03R	ILS Y 03R	BOBUD
SIRIL 1	DESCEND VIA	03L / 03R	ILS Y 03R	NELEX
VUMAN 1	DESCEND VIA	03L / 03R	ILS Y 03R	IRUSO
ITEDO 1	DESCEND VIA	03R & 21R	RNP 03R	TC110
SIRIL 2	DESCEND VIA	03R & 21R	RNP 03R	ISUMI

● STARs with RNAV transitions on the ILS Y 03R are the main arrivals used into Tocumen, always try to use these. They are as follows: SIRIL1, OSUPA1B, ISOKO1 and VUMAN1.
● When issuing descents, aircraft should be given the arrival, a runway to expect and the QNH.