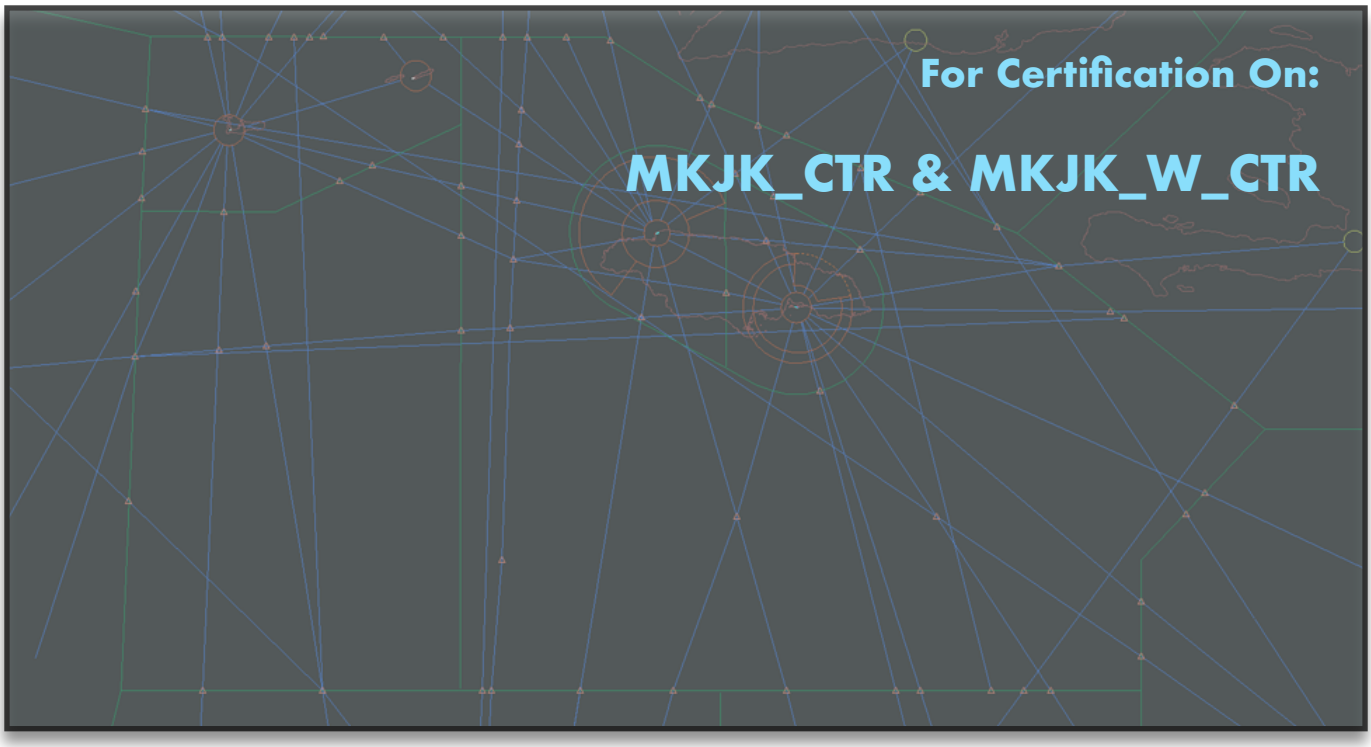
VATSIM's Kingston FIR
Standard Operating Procedures Vol. III
Operations Manual *(OPMAN)*
Kingston ACC



Synthesized By Gray Taylor
Edited By Njeri Carroo
Compiled By Maurice Johnson

1. Introduction

1.1 Training Director's Greeting & Change Log

Dear Kingston FIR Controller,

Welcome to our Kingston ACC (Area Control) Operations Manual (SOP #3). Together with the Jamaica OPMAN (#1) and Cayman Islands OPMAN (#3), this manual forms one third of the official SOPs for the Kingston FIR. As such, this document, along with the other Operational Manuals, is an authoritative source on procedures and phraseologies for all Kingston FIR controllers.

This particular OPMAN covers all current and aspiring C1 controllers. This volume will serve as the reference material for any instructor or mentor training a student on CTR in the Kingston FIR. Mastery of this material is the goal for a trainee.

Not one OPMAN nor the entire SOP suite can cover every scenario one will encounter on VATSIM. However, once one masters the standards of his positions, it becomes easier to compromise and improvise the way an excellent controller does.

Until the Kingston FIR hires its next Instructor, all inquiries and questions related to the content of this document should be directed to the Training Director (training@kingston.vatcar.org) or in their absence, VATCAR3.

Your humble servant,

Gray Taylor
Kingston FIR (Virtual)

Table 1A: Document Change Log

JAN 1 2018	- Added Change Log - Various grammatical, spelling, and semantical corrections
MAR 9 2018	- Amended Kingston Radar frequency - Various grammatical, spelling, and semantical corrections
APR 5 2018	- New FIR logo added - Reflected procedural changes concurrent with the 1807 AIRAC cycle

1.2 Table of Contents

1. Introduction

2. Universal Standards & Services

3. Area Radar (CTR) Control

1.3 Significance

This OPMAN is an operational document approved by VATCAR3 (or higher) per divisional policy. As such, this document (along with SOP Volumes 2 and 3) have supremacy over all other network policy documents covering the same content. VATCAR training documents (used to study for Rating advancement exams) might contain operational and phraseological guidelines which somewhat contradict those of the OPMAN(s). If there is a phraseological or operational scenario NOT covered by one of our OPMs, controllers should defer first to the VATCAR training documents and then to the real-world ICAO documents (if not first clarified by a Kingston FIR Staff member).

1.4 Functions and Usages

1.4.1 Structure

The chapters of this volume consist of 3 elements:

a) Operational and phraseological standards
b) Tables and figures, labeled by chapter and sequence
c) Examples (see 1.4.2), individually titled, with:
    a) Flight Plans and/or...
    b) Phraseological content (dialogues and monologues)

1.4.2 Flight Plan (Example) Legend

Figure 1B: Flight Plan (Example) Legend

CALLSIGN - FLIGHT RULES		A/C WEIGHT/TYPE/EQUIP.
AAL959 - IFR		**B738/L**
CITYPAIR	**CFL**	**Filed Route**
KMIA - SCEL	310	EONNS2 EONNS A509 URSUS UL780 DAGUD OSUPA
DEP APT - ARR APT	**CRUISE**	**ROUTING**

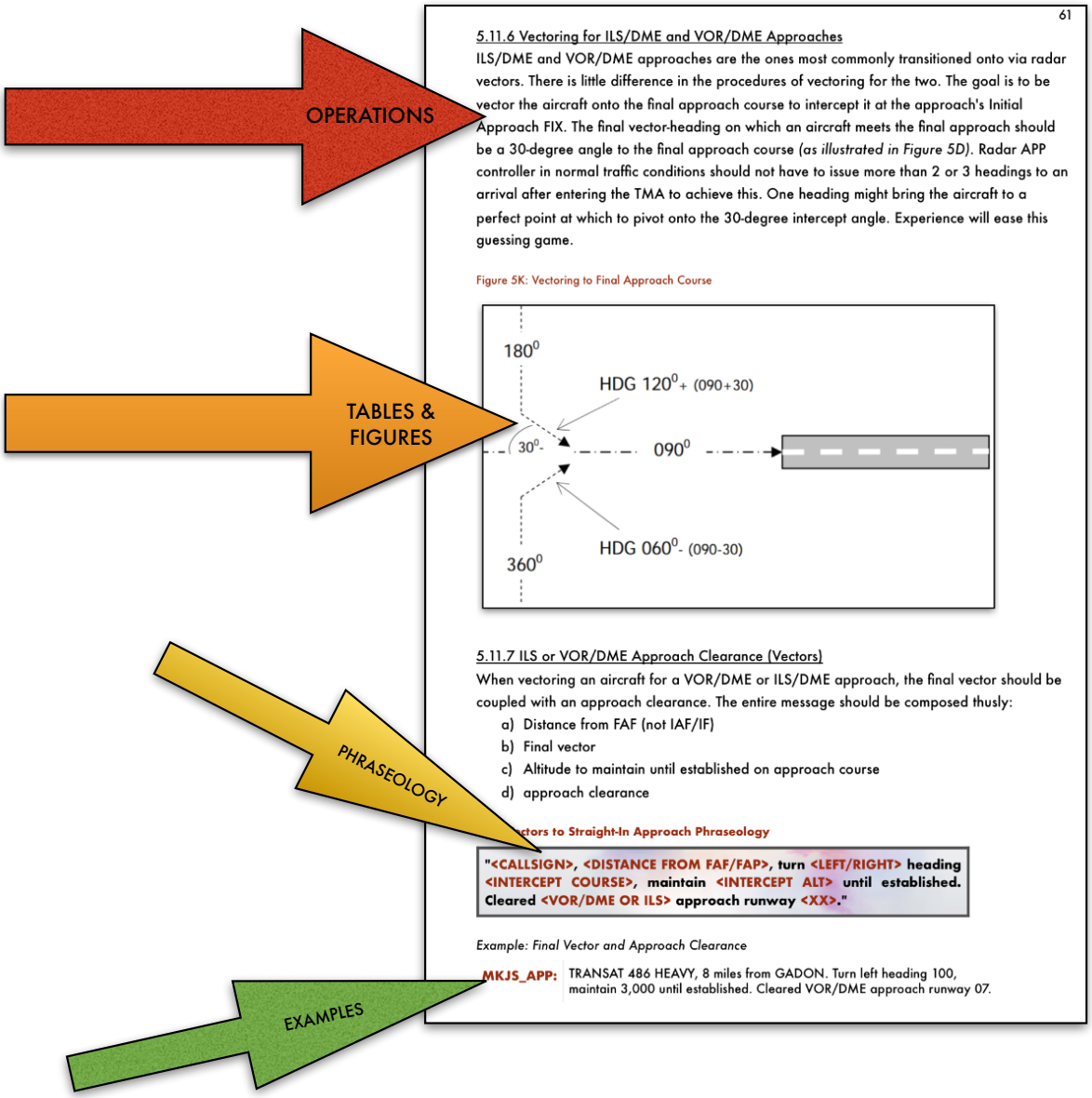
1.4.3 Example Notes

Please keep the following minutiae in mind regarding these example flight plans and accompanying dialogue:

- An "A" in the CFL (cruise flight level) represents an altitude ("A075" = 7,500 ft)
- Some dialogue sections in these examples may end or begin abruptly out of context. This is to shorten the document and make sure examples and phraseological content only apply to their particular section. These abrupt beginnings and ends will not muddy your understanding but only save you reading time.
- Some examples consist ONLY of a flight plan or ONLY of a dialogue, when the other is inconsequential to the concept being explained

1.4.4 Document Legend

Figure 1C: OPMAN Legend



2. Universal Standards & Services

2.1 Phonetic Alphabet

Table 2A: Phonetic Alphabet

LETTER	PHONETIC EQUIVALENT	PRONOUNCED AS
A	ALFA	Al fah
B	BRAVO	BRAH voh
C	CHARLIE	CHAR lee
D	DELTA	DELL tah
E	ECHO	ECK oh
F	FOXTROT	FOKS trot
G	GOLF	GOLF
H	HOTEL	hoh TELL
I	INDIA	IN dee ah
J	JULIETT	JEW lee ett
K	KILO	KEY loh
L	LIMA	LEE mah
M	MIKE	MIKE
N	NOVEMBER	no VEM ber
O	OSCAR	OSS cah
P	PAPA	pah PAH
Q	QUEBEC	keh BECK
R	ROMEO	ROW me oh
S	SIERRA	see AIR rah
T	TANGO	TANG oh
U	UNIFORM	YOU nee form
V	VICTOR	VIK tah
W	WHISKEY	WISS key
X	XRAY	ECKS RAY
Y	YANKEE	YANG key
Z	ZULU	ZOO loo

2.2 Speech Technique

Correct enunciation of words, spoken at a uniform rate in a voice pitched somewhat higher than normal but preserving the rhythm or ordinary conversation will do much to assist satisfactory reception of mechanically reproduced speech. Microphones and handsets are directionally functioning and controllers should therefore speak directly into them. To avoid clipped transmission, particularly where the transmitter is remotely located, it is important to depress the transmit switch fully before speech is commenced and to avoid returning it before the transmission is completed. Controllers should endeavor to use clear concise sentences devoid of such obvious faults as hesitation.

2.3 Basic Terminology

The phraseology in this Appendix is based on the standards and recommended practices contained in ICAO Annex 10, Volume 2, and ICAO PANS-ATM, Document 4444..

Table 2B: Aircraft Callsign Transmissions

Callsign	Transmitted As
AVA238	AVIANCA TWO THREE EIGHT
CAY792	CAYMAN SEVEN NINER TWO

Table 2C: Flight Level & Altitude Transmission

Flight Level/Altitude	Transmitted As
FL180	FLIGHT LEVEL ONE EIGHT ZERO
FL400	FLIGHT LEVEL FOUR ZERO ZERO
900 ft	NINER HUNDRED FEET
2,500 ft	TWO THOUSAND FIVE HUNDRED FEET
11,000 ft	ONE ONE THOUSAND FEET

Table 2D: Heading Transmission

Heading	Transmitted As
100 Degrees	HEADING ONE ZERO ZERO
080 Degrees	HEADING ZERO EIGHT ZERO

Table 2E: Wind Direction and Speed Transmission

Wind Condition	Transmitted As
200 Degrees, 25 Knots	WIND TWO ZERO ZERO DEGREES TWO FIVE KNOTS
160 Degrees, 18 Knots Gusting to 30	WIND ONE SIX ZERO DEGREES ONE EIGHT KNOTS GUSTING THREE ZERO

Table 2F: Transponder Code Transmission

Squawk Code	Transmitted As
5100	SQUAWK FIVE ONE ZERO ZERO
6703	SQUAWK SIX SEVEN ZERO TREE

Table 2G: Runway Transmission

Runway	Transmitted As
25	RUNWAY TWO FIVE
30	RUNWAY THREE ZERO

Table 2H: Altimeter Setting Transmission

QNH Setting	Transmitted As
1010	QNH ONE ZERO ONE ZERO
1015	QNH ONE ZERO ONE FIVE

2.4 Radiotelephony ATC Callsigns

Table 2I: Controller Radiotelephony

Positions	Radio Callsigns
Aerodrome Control *Aerodrome TWR* *Aerodrome GND*	*OWEN ROBERTS TOWER* *BRAC TOWER* *MANLEY TOWER* *SANGSTER TOWER* *MANLEY GROUND* *SANGSTER GROUND*
Approach Control *Procedural APP* *Radar APP*	CAYMAN APPROACH MANLEY RADAR SANGSTER RADAR
Area Control *Radar CTR* *Procedural CTR (External)*	*KINGSTON RADAR* *HAVANA CENTER* *CURAÇAO CONTROL* *PORT-AU-PRINCE CONTROL*

2.5 Aircraft Callsigns

Aircraft Callsigns shall be one of the following types:

a) The registration of the aircraft or the aircraft type followed by its registration, examples "*6Y-JGT*", "*CGNCB*", "*Cessna 6Y-JJC*".

b) The approved telephony designator of the operating company followed by the registration of the aircraft, e.g. "*Speedbird GBGDC*", "*Jamaica 6Y-JME*".

c) The approved telephony designator of the operating company followed by trip number, e.g. "*Jamaica 020*".

2.5.1 Abbreviated Callsigns

Once satisfactory two way communication with an aircraft has been established, and provided that no confusion is likely, controllers may abbreviate the callsign, but only to the following extent:

a) The first and the last two characters of the aircraft registration, e.g. *6-GT, C-CB,* or the aircraft type followed by the last two characters of the aircraft registration, example *Cessna JC*.

b) The approved telephony designator of the operating company follow by the last two characters of the aircraft registration, e.g. *Speedbird DC, Jamaica ME*.

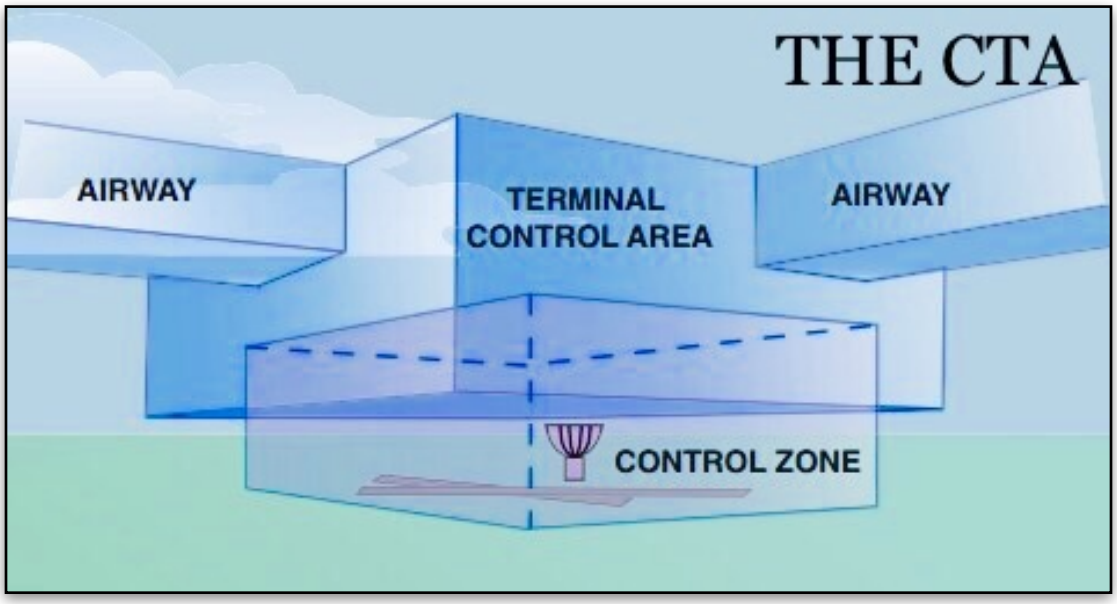
2.5.2 Wake Turbulence Phraseology

Aircraft in the heavy wake turbulence category will include the word "*HEAVY*" or "*SUPER*" as appropriate immediately following their Callsigns, on initial contact with an ATC Unit. The purpose is to enhance the situational awareness of ATC as well as other aircraft.

2.6 Airspaces Concerned

Figure 2J: Airspaces of the Kingston FIR/CTA

- Flight Information Region (FIR)
- **Control Area (CTA/AWY)**
- Terminal Control Area (TMA)
- Control Zone (CTR)
- Aerodrome Traffic Zone (ATZ)
- Traffic Information Zone (TIZ)



2.7 Airspace Classification

The ATS classifications utilized within the Kingston FIR along with the type of flights permitted and the air traffic services provided within them are summarized in *Table 2J*.

Table 2K: ATS Airspace Classification

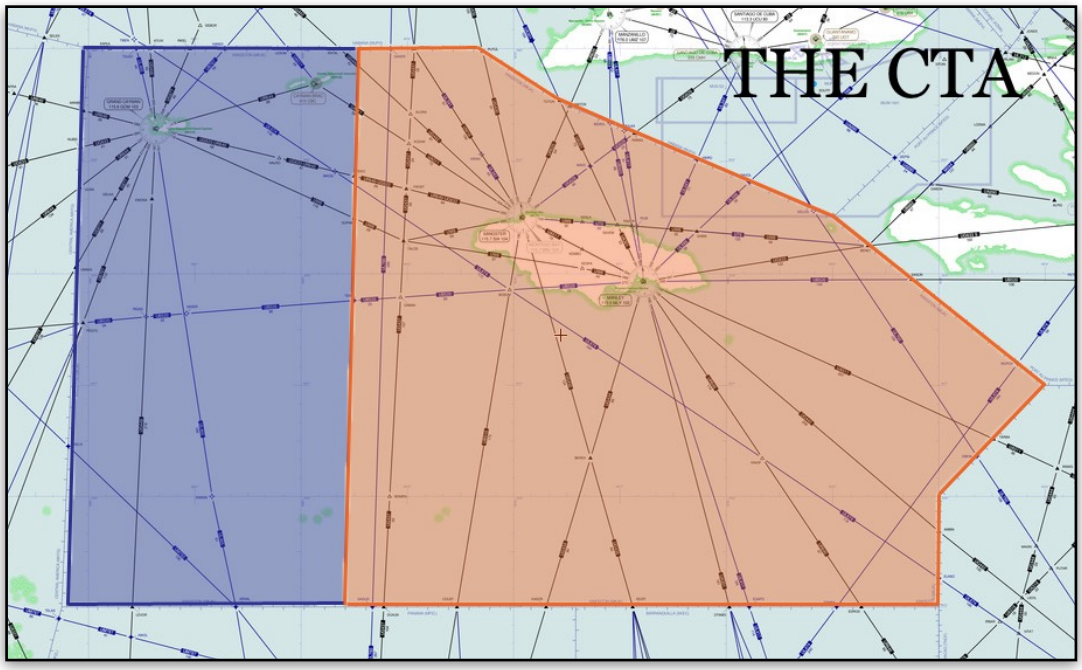
Class	Rules	Requirements	Services Provided
A	IFR	a) Obtain ATC clearance before entry b) Comply with ATC instructions	a) Separate all aircraft from each other b) Provide Flight Information to all aircraft
D	IFR & VFR	a) Obtain ATC clearance before entry b) Comply with ATC instructions	a) Separate IFR flights from other IFR flights b) Pass traffic information to IFR flights on VFR flights and give traffic avoidance advice based on Radar. c) Pass traffic information to VFR flights on IFR flights and other VFR flights
E	IFR & VFR	a) IFR flights to obtain ATC clearance before entry b) Comply with ATC instructions c) VFR flights do not require clearance	a) Separate IFR flights from other IFR flights b) Pass traffic information, as far as practicable, to IFR on VFR flights c) Pass traffic information on all flights, as far as practicable, to VFR flights that are in radio contact
G	✖	a) No Clearance Required	a) Provide flight information service to VFR flights upon request

2.8 Airspace Division

2.8.1 The Kingston FIR (CTA)

The divisions of the Kingston CTA airspace are illustrated and described in *Figure 2K:*

Figure 2K: Kingston FIR/CTA and subordinate Airspaces



Sector	Owner	Airspace
Kingston CTA (East, Combined)	MKJK_CTR	Class E: Outside ATS Route Airspace
Kingston CTA (West Sector)	MKJK_W_CTR	Class A: Along ATS Route Airspace

2.8.2 Kingston CTA Enroute Airspace

The "Kingston CTA" refers to all controlled airspace in the Kingston FIR outside of the underlying TMAs and CTRs. In other words: Area (CTR)'s airspace. Outside and above those terminal airspaces, the entirety of the Kingston FIR is Class A in all ATS route segment areas. Outside the ATS route structures, the entire FIR is Class E airspace. Regardless of whether an aircraft is on a route or not, if they are IFR, they must be in contact with Kingston.

2.8.3 Staffing of West Radar

MKJK_CTR (East Radar) shall have possession of the Kingston CTA West Sector whenever West Radar is offline. West Radar shall only be manned when all lower APP and TWR positions are staffed, or in special circumstances as directed by the FIR staff. Both East Radar and West Radar should identify simply as "Kingston Radar" at all times. In the unlikely event that West Radar is staffed and Cayman Approach is not, West Radar will provide top-down services in the Cayman TMA.

2.9 Separation

The objective of separation methods and minima is to provide each aircraft with a volume of protective airspace, which moves along with the aircraft in flight and into which other aircraft are not permitted to penetrate.

2.9.1 Types of Separation

a) Vertical

b) Horizontal... (Longitudinal and lateral including Radar Surveillance)

2.9.2 Provisions for Separation

Vertical or horizontal separation minima shall be provided between:

a) all flights in Class A airspace;

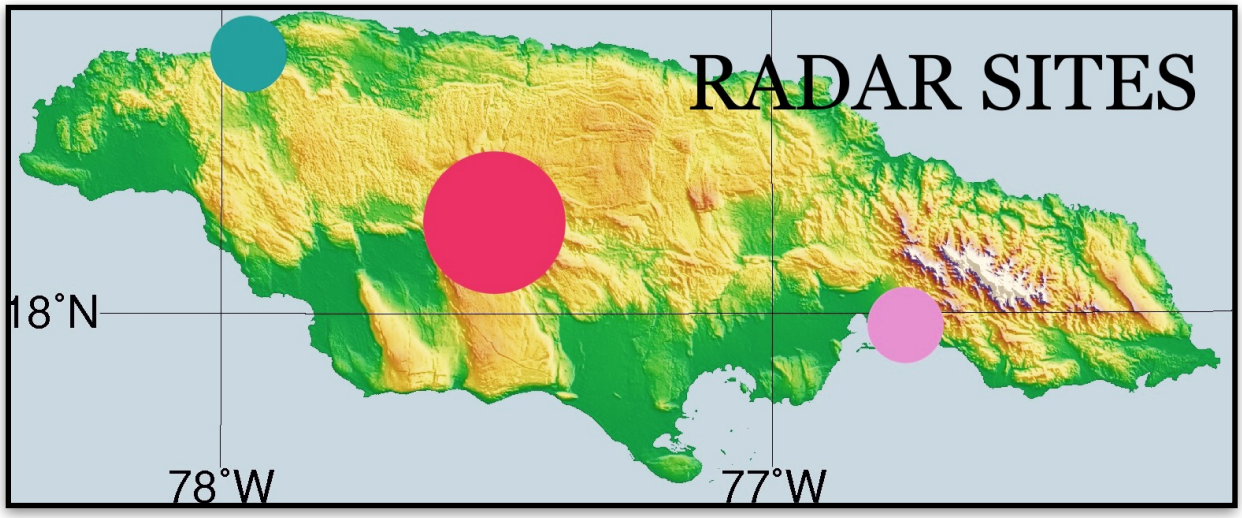
b) IFR flights in Class D and E airspace;

c) IFR flights and special VFR flights

2.10 Radar Sites

The real-world Radar installations listed in *Figure 2L* are part of our simulation:

Figure 2L: Radar Sites, Jamaica



Montego Bay: N18°30'22.0 - W77°54'80.0

Kingston: N17°56'13.0 - W76°47'25.0

Mt. Denham: N18°13'32.8 - W77°32'04.6

2.11 Transition Altitude/Level

In the Kingston FIR, altitude up to 17,000 ft AMSL are referred to in thousands of feet of altitude. Altitude 18,000 feet AMSL or higher are referred to in flight levels. See Section 2.3 for specific terminology.

2.12 Time

UTC and the 24-hour clock is to be used at all times. Example, *0130Z*, or 1:30 GMT. When speaking a time value, normally only the minutes of the hour are required; each figure being pronounced separately. However, if there is any possibility of confusion the full four-figure group is to be spoken.

2.13 Emergencies

Emergencies may only be simulated on VATSIM with the coalescence of the controller. Workload, mood, and pilot behavior may factor into a controller's decision to allow a simulated emergency.

If a pilot declares an emergency, the following steps should be taken.

a) Request that the pilot squawk 7700
b) Request fuel and passenger information
c) Advise emergency aircraft of options available for landing
d) Proceed normally with instructions

Example: Handling of Accepted Emergency

CAY621 - IFR		**B733/L**
CITYPAIR	**CFL**	**Filed Route**
MWCR - MKJS	250	UR640

CAY621:	KINGSTON RADAR, Cayman 621 declaring an emergency. Total loss of hydraulic pressure.
MKJK_CTR:	CAYMAN 621, Kingston Radar, understand declaring emergency. State number of souls onboard and remaining fuel onboard.
CAY621:	Cayman 621 has 58 souls and about 250 minutes fuel onboard.
MKJK_CTR:	CAYMAN 621, roger, the airspace is clear and all runways available. Keep me updated.

If you plan to refuse handling of an emergency:

Example: Refusing an Emergency

CAY621:	KINGSTON RADAR, Cayman 621 declaring an emergency. Total loss of hydraulic pressure.
MKJK_CTR:	CAYMAN 601, Kingston Radar not presently accepting emergency scenarios. Please discontinue emergency simulation or disconnect.

2.16 Equipment Suffixes

All IFR flight plans should include an equipment suffix after the aircraft type. This suffix indicates the navigational and transponder capabilities of the aircraft. The Suffixes are set out below in *Tables 2N*.

Tables 2N: Flight Plan Navigational Equipment Suffixes

Navigation	Transponder	Suffix
DME	Transponder, Mode C	/A
	Transponder, NO Mode C	/B
	NO Transponder	/D
	Transponder, Mode C + RVSM	/W

Navigation	Transponder	Suffix
NO DME	Transponder, NO Mode C	/U
	Transponder, NO Mode C	/T
	NO Transponder	/X

Navigation	Transponder	Suffix
RNAV NO GNSS	Transponder, Mode C	/I
	Transponder, NO Mode C	/C
	NO Transponder	/Y
	Transponder, Mode C + RVSM	/Z

Navigation	Transponder	Suffix
TACAN	Transponder, Mode C	/P
	Transponder, NO Mode C	/N
	NO Transponder	/M

Navigation	Transponder	Suffix
RNAV & GNSS (RNP)	Transponder, Mode C	/G
	Transponder, NO Mode C	/S
	NO Transponder	/V
	Transponder, Mode C + RVSM	/L

3. Area Radar (CTR) Control

3.1 Services Provided

An area control centre normally provides area control services to aircraft operating within its designated control area (CTA). The Kingston Area Control Centre is responsible for the following services which are provided:

a) area control service
b) flight information service
c) radar approach service if subordinate APP offline
d) procedural approach service if MWCR_APP offline
e) aerodrome tower service if subordinate TWR offline
f) aerodrome ground service if subordinate GND offline

3.2 Area of Jurisdiction and Authority

The area of jurisdiction of area control is the Kingston FIR/CTA excluding the airspaces within the lateral and vertical limits of the TMAs except when so delegated in accordance with the online/offline status of those subordinate positions.

3.3 General Responsibilities

Area controllers shall maintain a continuous watch over all flights operating within their designated area and shall issue instructions, information and advice to such flights in order to achieve a safe, orderly and expeditious flow of air traffic .

Area controllers shall coordinate with other area control sectors, adjacent ACCs and approach control units, as required, and shall provide the aforementioned services to aircraft that are:

a) transiting its airspace, from entry until such aircraft have been transferred to another area control sector or adjacent ACC
b) arriving, that have been transferred by another area control sector or adjacent ACC from entry until such flights have been transferred to approach control;
c) departing, that have been transferred by approach control until such flights have been transferred to another area control sector or adjacent ACC

3.4 Relevant Positions

The positions governed by the procedural and phraseological guidelines of this chapter are described below in *Table 3A,* along with specific jurisdictions and parameters:

Table 3A: Aerodrome TWR Positions, Cayman Islands

Position	Callsign	Sector	ID	Frequency
East Radar	**MKJK_CTR**	Kingston CTA *(E)*	**ER**	125.400
West Radar	**MKJK_W_CTR**	Kingston CTA *(W)*	**WR**	128.350

3.5 Systems Used

Where adequate radar coverage exists, EuroScope radar surveillance procedures (just as instructed in Vol. I Jamaica OPMAN) shall be the primary means employed in the provision of Area Radar services within the Kingston FIR/CTA.

3.6 Transponder Codes

The guidelines for assigning Squawk Codes within the Kingston CTA are illustrated in *Table 3B:*

Table 3B: Transponder Code Assignment

Squawk Range	Route
6701 - 6777	International IFR
0701 - 0777	Domestic IFR

3.7 Contact-Me Procedures

An Area Radar controller may send a contact-me message to an incoming aircraft in an uncontrolled adjacent airspace as early as 30 NM from the FIR boundary. If, after 30 minutes, the aircraft has not made some effort to contact the controller, a network SUP should be notified.

3.8 Radar Control

3.8.1 Methods of Radar Identification

Identifying an aircraft by radar requires two conditions to be met:

a) Transponder is set to Mode Charlie (on) instead of standby

b) Data Tag/Flight Plan correlated to the correct radar target

If those conditions are met, any of the following will complete identification, AKA "radar contact":

a) observation of an aircraft's compliance with a discreet squawk code assignment

b) observation of compliance with instruction to squawk "IDENT"

c) by correlating a particular radar position indication (RPI) with an aircraft reporting its position over, or as bearing and distance from, a navigational waypoint (VOR, FIX, NDB, Aerodrome)

d) by receiving the aircraft radar target via handoff from a controller who has previously identified the aircraft.

Radar Identification Phraseology

"<CALLSIGN>, Kingston Radar, radar contact <LEVEL/ALTITUDE>, <DISTANCE> miles from <WAYPOINT>. Welcome aboard."

3.8.2 Types of Separation

There are two types of Radar Separation:

a) Horizontal
b) Vertical

3.8.3 Horizontal Separation Minima

Radar APP control can provide horizontal separation between two aircraft that have been properly identified. The minima for such separation are set forth in *Table* 3C:

Table 3C: Horizontal Radar Separation Minima

Minima	Conditions
5 Miles	Both airplanes are 60 miles or less from a known Radar Site.
10 Miles	Both airplanes are more than 60 miles from a known Radar Site.

3.8.4 Wake turbulence separation

Distance-based wake turbulence separation minima shall be applied to aircraft being provided with radar control service in the approach and departure phase under APP control. These minima are set out in *Table 3D:*

Table 3D: Terminal Wake Turbulence Separation

Sequence	Light	Medium	Heavy
Flying behind SUPER	8 nm	7 nm	6 nm
Flying behind HEAVY	6 nm	5 nm	4 nm
Flying behind MEDIUM	5 nm	–	–

3.8.5 Vertical Separation

Aircraft not horizontally separated shall be vertically separated by assigning different altitudes at least 1,000 feet apart.

3.8.6 Failure of Separation

Area Radar separation fails in one or more of the following instances:

a) two or more aircraft are horizontally in violation of the separation minima laid out in 3.10.1.
b) two or more aircraft unseparated horizontally are less than 1,000 feet from each other vertically

3.8.7 Corrective Action

If Area Radar separation has failed as described in 3.8.5 or appears in danger of failing, one or more of the following actions is recommended:

a) issuance of a Radar Traffic Alert
b) issuance of a vectoring, speed control, or altitude adjustment to create separation

3.8.8 Positive Separation Methods

The Area Radar controller may use the following techniques to enforce separation minima in the terminal environment:

a) Vectors (turns and headings)
b) Altitude assignments
c) Speed control

3.8.9 Turns and Headings (Vectors)

Vectors may be expressed by specifying:

a) a heading to be flown if current heading is not known.. E.g. *"FLY HEADING 050"*
b) a heading to be flown and direction of turn if current heading in known E.g. *"TURN RIGHT HEADING 050"*
c) a direction of turn and number of degrees to be turned E.g. *" TURN RIGHT 10 DEGREES"*

Vectoring Phraseology

"<CALLSIGN>, fly heading <HEADING>."
"<CALLSIGN>, turn <LEFT/RIGHT> heading <HEADING>."
"<CALLSIGN>, turn <LEFT/RIGHT> <XX> degrees."

3.8.10 Speed Control

Speed controls are issued to aircraft in KIAS (Knots Indicated Airspeed) below FL250. Above that level (where the upper routes/airways also begin) such instructions must be converted to Mach Number, a decimal representing the percentage of the speed of sound.

Speed Control Phraseology

"<CALLSIGN>, <REDUCE/INCREASE SPEED>, <XX> knots <OR LESS/ GREATER>."
"<CALLSIGN>, maintain Mach decimal <XX> <OR LESS/GREATER>."

Example: Speed Control (Mach Number)

MKJK_CTR:	COPA 418, maintain Mach decimal 82 or less.

Example: Speed Control (KIAS)

MKJK_CTR:	WESTJET 2702, reduce speed, 300 knots or less.
MKJK_CTR:	C-GAPT, when ready, climb FL380. Report leaving FL360.

Note: Since the enroute Area Radar environment consists mostly of high-level, high speed aircraft in their cruise phase of flight, vertical separation is easily the most efficient way to keep enroute aircraft separated. There will be certain circumstances where you might have to use speed controls to separate two flying partners longitudinally. Vectors are available to an Area Radar controller but there should be almost no reason to use them outside the terminal environment except for urgent evasive instructions

3.8.11 Altitude Adjustments

Altitude adjustments are instructions which regulate the altitude or flight level that an aircraft is permitted to climb or descend to.

Altitude Adjustment Phraseology

"<CALLSIGN>, <CLIMB/DESCEND> <ALTITUDE/FLIGHT LEVEL>."

Example: Altitude Adjustment

MKJK_CTR:	COPA 318, climb FL390.
MKJK_CTR:	SPIRIT WINGS 833, descend 15,000. QNH 1014.

Depending on the situation, an APP controller can append one or both of the following discretionary components to an altitude adjustment/instruction:

a) "When Able", which allows the pilot to begin the climb/descent at the time of their choosing
b) "At pilot's discretion", which allows the pilot total control in his climb/descent gradient

Example: Discretionary Altitude Instructions

MKJK_CTR:	WESTJET 2702, when ready, descend at pilot's discretion to cross KIRAN at 15,000. QNH is 1014.
MKJK_CTR:	LAN CHILE 510, when ready, climb FL380. Report leaving FL360.

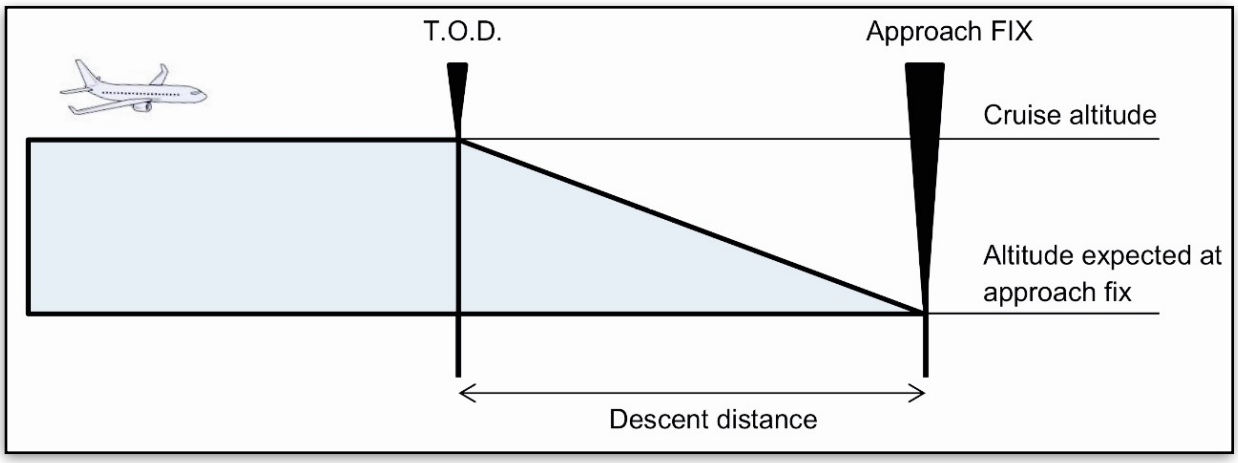
3.9 Descent Planning

Aircraft that will require a descent clearance from Area Radar are almost always destined for one of your underlying Caymanian or Jamaican Aerodromes. Providing a decent clearance with the allele life restrictions is critical to being an effective Area Radar controller.

3.9.1 Top-of-Descent (TOD)

The Top-of-Descent (TOD) is a point at which to begin a descent from the enroute cruise level to meet an initial Approach FIX altitude expectation. The TOD is calculated by the pilot's flight management system (FMS) for maximum economy.

Figure 3E: Top-of-Descent (TOD) Parameters



3.9.2 Start-of-Descent (SOD)

The Start-of-Descent (SOD) is a point calculated by ATC to provide a rough parallel to the pilot's likely TOD point. The equation to get an aircraft's SOD should factor in the charted altitude at the IF (Initial FIX) for the approach in use and a standard 3-degree descent angle. The result you get will be the distance (NM) from the IF that should roughly mark the time for descent.

Figure 3F: Start-of-Descent (SOD) Calculation

$$D\ (NM) = \frac{(CRZ\ ALT - IF\ ALT)/100}{DESCENT\ ANGLE\ (3°)}$$

Note: Area Radar control should issue an aircraft's initial descent clearance (see 3.8.11) no fewer than 15 NM prior to reaching the SOD point calculated. This should account for the variation between our procedurally generated calculation and the dynamically generated TOD.

3.9 Handling of Jamaica TMA Arrivals

3.9.1 Standard Services

Area Radar's job is to transition arrivals to underlying aerodrome a from the enroute phase of flight to the terminal (arrival phase). This involves supplying the following services:

a) Radar Separation services
b) Flight information services (arrival aerodrome WX, traffic, etc.)
c) Initial descent and transfer to Radar Approach

Jamaica TMA Transfer Phraseology

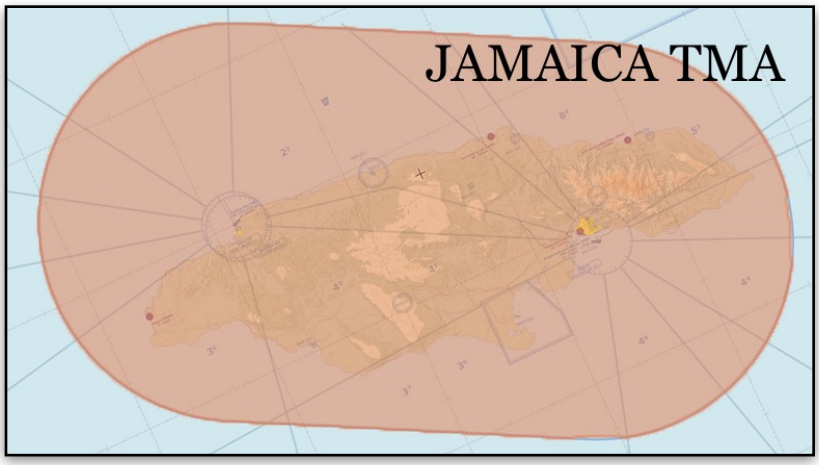
"<CALLSIGN>, contact <MANLEY/SANGSTER> radar on <FREQUENCY>."

3.9.2 Coordination with Approach Radar

Coordination between Area Radar (MKJK_CTR) and the underlying Radar Approach (MKJP_APP, MKJS__APP) units comprises the following elements:

a) TCP (Transfer-of-Control Point): The TCP between Area and Approach Radar shall be the TMA boundary FIX in the concerned flight plan, OR, if a flight plan routes direct to the FIR boundary or airport, the TCP shall be the TMA boundary at the point at which the aircraft crosses it. Neither Area nor Approach Radar may clear an aircraft to a waypoint inside the other's airspace without approval through EuroScope.
b) TCA (Transfer-of-Control Altitude): The TCA between Area and Approach Radar shall, by default, be **15,000** for Arrivals to Jamaica and **14,000** for Departures. This can be coordinated on an individual basis if necessary.
   - Area Radar should hand off arrivals to Approach Radar roughly 20 nm from the TCP/ boundary.
   - Approach Radar should hand off departures to Area Radar roughly 4,000 ft prior to the TCA in their climb, or 10 nm from the TCP/boundary.

Figure 3E: Jamaica TMA Transitions



Note: Unless circumstances demand a special arrangement, there should be no need for coordination between Area Radar and Approach Radar beyond the aforementioned client-side methods (TCA/TCP). Estimate Reports are not necessary in either direction.

Example: Manley Arrivals

BWA415 - IFR		**B738/L**
CITYPAIR	**CFL**	**Filed Route**
MYNN - MKJP	290	ZQA B503 ENAMO UR625 NEFTU UL417 MLY

BWA415: KINGSTON RADAR, Caribbean Airlines 415 is 25 north of BEMOL at level 330.

MKJK_CTR: CARIBBEAN AIRLINES 415, Kingston Radar, good afternoon. Reset transponder, squawk 6740.

MKJK_CTR: CARIBBEAN AIRLINES 415, radar contact FL330, 20 miles north of BEMOL. Descend 15,000, best rate down. Manley QNH 1012.

BWA415: 1012, leaving 330 for 15,000, Caribbean Airlines 415.

MKJK_CTR: CARIBBEAN AIRLINES 415, contact Manley Radar, 120.6.

Example: Sangster Arrivals

SWA1042 - IFR		**B737/L**
CITYPAIR	**CFL**	**Filed Route**
KMDW - MKJS	370	URSUS UG430 PUTUL G430 SEKAM SIA

SWA1042: KINGSTON RADAR, Southwest 1042 is 25 north of PUTUL at level 370.

MKJK_CTR: SOUTHWEST 1042, Kingston Radar, good afternoon. Reset transponder, squawk 6721.

SWA1042: Roger, 6721 in the box, 1042.

MKJK_CTR: SOUTHWEST 1042, radar contact FL370, 20 miles north of PUTUL. When ready, descend pilots discretion to cross SEKAM at 15,000. Report leaving 370.

SWA1042: When ready down to 150 by SEKAM, our discretion. I'll call you leaving FL370, 1042.

SWA1042: Southwest 1042, leaving FL370.

MKJK_CTR: SOUTHWEST 1042 roger, QNH 1012, Sangster Information alpha is current.

MKJK_CTR: SOUTHWEST 1042, contact Sangster Radar, 120.8. Good day.

3.9.3 Sequencing Successive Arrivals

If successive arrivals via the same approximate area are inbound to Jamaica from enroute airspace, the following conditions are expected to exist before CTR hands them off to Radar APP:

a) 10 Miles-In-Trail Spacing: Though 5 miles is the absolute minimum horizontal separation, successive arrivals should be spaced out (as best possible) to roughly 10 miles, in trail of one another, before handoff to APP.
b) Clearance to 15,000 or negotiated TCA
c) Airspace restriction of 300 KIAS imposed before handoff.

Example: Sangster Arrival (Successive)

SWA1042 - IFR		**B737/L**
CITYPAIR	**CFL**	**Filed Route**
KMDW - MKJS	370	URSUS UL780 TASNO UM221 NIBEO L341 SIA

DAL861 - IFR		**A320/L**
CITYPAIR	**CFL**	**Filed Route**
KATL - MKJS	330	DHP A509 URSUS UL780 TASNO UM221 NIBEO L341 SIA

SWA1042:	KINGSTON RADAR, Southwest 1042, 10 miles north of NIBEO, level 370.
MKJK_CTR:	SOUTHWEST 1042, Kingston Radar, good day.
DAL861:	KINGSTON RADAR, Delta 861 is 20 north of NIBEO, FL330.
MKJK_CTR:	DELTA 861, Kingston Radar, welcome aboard.
MKJK_CTR:	SOUTHWEST 1042, when ready, descent pilots discretion to cross SEKAM at 15,000. Sangster QNH 1013, report leaving FL370.
SWA1042:	When ready down to 15 at SEKAM, call leaving 370, 1042.
SWA1042:	Southwest 1042 leaving 370 for 15,000.
MKJK_CTR:	SOUTHWEST 1042, roger.
MKJK_CTR:	DELTA 861, descend at pilots discretion to cross SEKAM at 15,000. QNH is 1013.
DAL861:	My discretion down to 15 at SEKAM, Delta 861.
MKJK_CTR:	Southwest 1042, contact Sangster Radar on 120.8.
MKJK_CTR:	DELTA 861, reduce speed to 300 knots, contact Sangster Radar on 120.8.

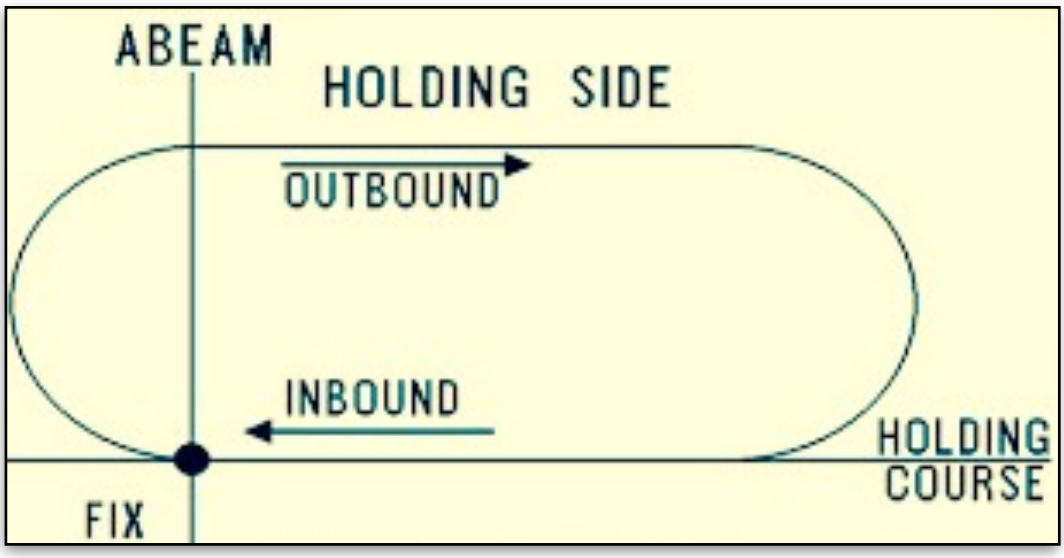
3.9.3 Handling of an Over-Congested TMA

If the Area Radar or Approach Radar controller deems the TMA too congested, Area Radsr should begin using holding patterns to limit the inflow of traffic. These holding patterns should be assigned at the TCP boundary points along the TMA boundary. Such waypoints have no published holding procedures, so any such clearance must be complete.

Holding Phraseology

> **"<CALLSIGN>, proceed direct <FIX> and hold. Inbound course <COURSE>. <LEFT/RIGHT> hand turns. <DISTANCE> outbound legs."**

Figure 3H: Anatomy of a Holding Pattern



Example: Pilot Without Charts/FMC (Hold at MARAG)

MKJK_CTR:	GREENHEART 273, ready to copy holding instructions?
FJM273:	Ready to copy, Greenheart 273.
MKJK_CTR:	GREENHEART 273, proceed direct MARAG and hold: inbound course 350 degrees, left hand turns, 4 miles outbound leg.
FJM273:	Direct MARAG, holding inbound course 350, left turns, 4 mile outbound leg, 273.

3.10 Handling of Arrivals to the Cayman Islands

3.10.1 Standard Services

Area Radar's job is to transition arrivals to underlying aerodrome a from the enroute phase of flight to the terminal (arrival phase). This involves supplying the following services:

a) Radar Separation services

b) Initial descent and transfer to Procedural Approach Control

Cayman TMA Transfer Phraseology

"<CALLSIGN>, you are entering procedural airspace. Radar services terminated, contact Cayman Approach, 120.2."
"<CALLSIGN>, you are entering procedural airspace. Radar services terminated. Remain on this frequency and report <POINT>."

3.10.2 Coordinating with Cayman Approach

The following is a summation of standard Coordination protocols between Area Radar (MKJK_CTR) and the subsidiary Procedural Approach (MWCR_APP) unit:

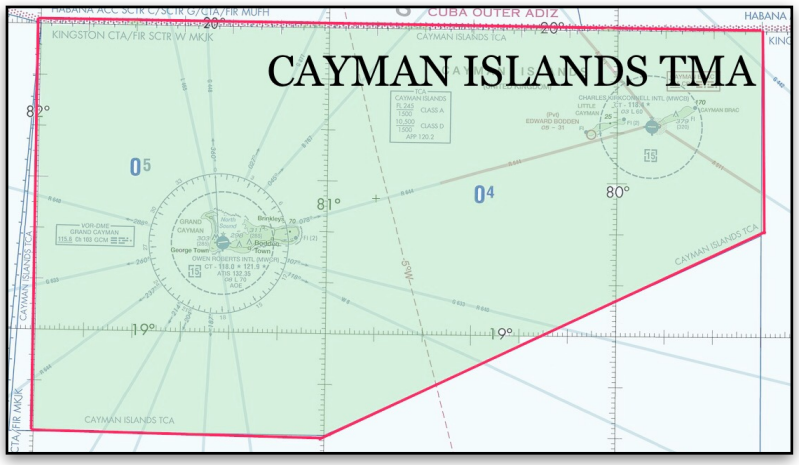
a) TCP (Transfer-of-Control Point): The TCP between Area Radar and Cayman Procedural Approach shall be the TMA boundary FIX in the concerned flight plan.

b) TCA (Transfer-of-Control Altitude): The Standard TCA between Cayman Approach and Area Radar for aircraft departing the Cayman Islands is the aircraft's cruise altitude/level. Arriving TCAs are documented in *Table 3I*.

Table 3I: Optimal TCA Levels, Cayman Islands TMA Arrivals

Destination	TCPs (Boundary FIXes)	TCA
MWCR	NALRO • MATIS	FL240
	ALOBO • EMONA • MATIS • LEROL • DELKA	10,000 ft
	KANEX • RIKEL • ATUVI • TULEV • KARUL	11,000 ft
	NUBIS • MAMBI • ULISA	11,000 ft
MWCB	LESOM • KATAL	7,000 ft

Figure 3J: Cayman Islands TMA Transitions



All aircraft transiting between Cayman Approach and Area Radar should be pointed out by the original controller at least 20 minutes before his estimated boundary crossing using the procedural handoff estimate detailed below. CTR should hand off an aircraft bound for the Cayman TMA at least 25 miles before the TCP/boundary.

3.10.2 Handoff Estimate Reports

Handoff Estimate Reports should be sent by Area Radar for all aircraft bound for Cayman Approach (MWCR_APP), and contain the following elements:

1. Callsign
2. AC Type
3. TCP (Transfer-of-Control Point)
4. Flight Level/Altitude
5. ETA TCP

☎️ *Example: Cayman Approach Handoff Estimate*

MKJK_CTR:	CAY620 B733 **NALRO** FL240 0434Z

Example: Handling of an Owen Roberts Arrival

CAY620 - IFR		**B733/L**
CITYPAIR	**CFL**	**Filed Route**
MKJS - MWCR	260	UR640

CAY620:	KINGSTON RADAR, Cayman 620 is through 10 for 14.
MKJK_CTR:	CAYMAN 620, Kingston Radar, good morning. Climb FL260.

MKJK_CTR:	CAYMAN 620, when ready, descend pilots discretion to cross NALRO at FL240.
CAY620:	240 at NALRO, our discretion, Cayman 620.

MKJK_CTR:	CAYMAN 620, you're entering Procedural airspace. Radar services are terminated. Contact Cayman Approach on 120.2, good day.
CAY620:	120.2, Cayman 620.

3.12.2 Successive Arrivals

If successive arrivals via the same TCP are inbound to the Cayman Islands from Area airspace, the following conditions are expected to exist before CTR hands them off to Cayman Approach:

a) 10 Minutes-In-Trail Spacing: Aircraft bound for the Cayman TMA via the same route or TCP must be separated longitudinally by 10 minutes before handoff to Cayman Approach.
b) A mutually agreed TCA based on logic.
c) Relevant QNH and ATIS status supplied to aircraft.

Example: Successive MWCR Arrivals

N95VS - IFR		**LJ45/L**
CITYPAIR	**CFL**	**Filed Route**
MKJP - MWCR	280	MLY G442 SIA UR640 GCM

CAY620 - IFR		**B733/L**
CITYPAIR	**CFL**	**Filed Route**
MKJS - MWCR	260	UR640

N95VS:	KINGSTON RADAR, Lear 95VS is through 12 for 14,000.
MKJK_CTR:	N95VS, Kingston Radar, climb FL280.
N95VS:	Up to 280, 5VS.
CAY620:	KINGSTON RADAR, Cayman 620 is climbing 11,000 for 14.
MKJK_CTR:	CAYMAN 620, Kingston Radar, climb FL260.
CAY620:	Up to 260, Cayman 620.
MKJK_CTR:	N95VS, report Mach number.
N95VS:	Lear 5VS indicating Mach .58
MKJK_CTR:	LEAR 5VS, roger, maintain Mach .58 or greater until NALRO.
N95VS:	.58 or greater until NALRO, 5VS.
MKJK_CTR:	CAYMAN 620, maintain Mach .56 or less until NALRO.
CAY620:	.56 or less until NALRO, Cayman 620
MKJK_CTR:	N95VS, you're entering Procedural airspace. Radar services terminated, contact Cayman Approach on 120.2.
MKJK_CTR:	CAYMAN 620, you're entering Procedural airspace. Radar services terminated, contact Cayman Approach on 120.2.
CAY620:	Over to 120.2, Cayman 620.

3.11 Handling of Departures from Underlying TMAs

3.13.1 Standard Services

Aircraft that have departed from a Caymanian or Jamaican aerodrome and subsequently enter the control of Area Radar should receive the following Services:

a) Radar Identification, if necessary
b) Climb Clearance to Cruise Altitude/Level
c) Route adjustments for expediency, if practical
d) Radar separation services until transfer to an adjacent control unit or UNICOM

Example: Handling of Sangster Departure

DAL814 - IFR		**A320/L**
CITYPAIR	**CFL**	**Filed Route**
MKJS - KMSP	360	EPSIM ZEUSS DHP J85 TAY MCN J45 ATL J45 BNA ALO KICKR BLUEM3

DAL814:	KINGSTON RADAR, Delta 814 is through 11 for 14.
MKJK_CTR:	DELTA 814, Kingston Radar, good evening. Climb FL360. Proceed direct EPSIM.
DAL814:	Up to 360, Direct EPSIM. Delta 814.

MKJK_CTR:	DELTA 814, contact Havana on 124.55.
DAL814:	124.55 for Delta 814, goodnight.

Example: Handling of Cayman Departure

N352AF - IFR		**GL5T/L**
CITYPAIR	**CFL**	**Filed Route**
MWCR - MTPP	290	NALRO UG633 OTEKO UR640 FROST UG633 SIA UT6 KEBET MAROT

N352AF:	KINGSTON RADAR, Global 2AF is 5 miles from NALRO, through FL250 for 290.
MKJK_CTR:	GLOBAL 352AF, Kingston Radar, good day. Radar contact, climbing through FL260, 3 miles from NALRO. Welcome aboard.
N352AF:	Thank you, N352AF.
MKJK_CTR:	GLOBAL 2AF, report position KEBET.
N352AF:	Will call over KEBET, 2AF.

N352AF:	KINGSTON RADAR, Global 2AF is nearly over KEBET.
MKJK_CTR:	GLOBAL 2AF, radar services terminated. Change to UNICOM 122.8.

Example: Handling of Manley Departure (LOA Handoff)

INC852 - IFR		**GL5T/L**
CITYPAIR	**CFL**	**Filed Route**
MKJP - TNCC	310	MLY G442 AMBIN UG442 ABA A574 PJG

INC852:	KINGSTON RADAR, Insel Air 852 is climbing through 10,000 for 14,000, just passing URMAN.
MKJK_CTR:	INSEL AIR 852, Kingston Radar, good afternoon. Climb FL310.
INC852:	Up to 310, Insel Air 852.

MKJK_CTR:	INSEL AIR 852, contact Curaçao on 124.100, goodnight.
INC852:	Going to 124.1, 852.

Example: Handling of Brac Departure (Non-LOA CTR Handoff)

G-OMEA - IFR		**C550/L**
CITYPAIR	**CFL**	**Filed Route**
MWCB - MPTO	320	CBC A511 UG437 DUXUN

G-OMEA:	KINGSTON RADAR, Citation G-OMEA is just past KATAL climbing through 12,000 for FL320.
MKJK_CTR:	CITATION GEA, Kingston Radar, radar contact climbing through 13,000, 2 miles east of KATAL. Welcome.
G-OMEA:	Roger, G-OMEA.

MKJK_CTR:	G-OMEA, radar services are terminated. Contact Panama on 135.9, good day.
G-OMEA:	135.9, G-OMEA.

3.12 Coordination with Adjacent ACCs

3.12.1 Standards

The Kingston FIR shares borders with 6 different neighboring FIRs, 3 of which have actively commissioned LOAs with Kingston. These 3 FIRs are the only ones with which a Kingston Area Radar controller is permitted to perform a regular radar handoff. Aircraft bound from MKJK to on of the other four neighboring FIRs will have their radar services terminated, their sat TAGs dropped (unashamed) and receive only the verbal handoff. All adjacent CTR positions, however, should receive a handoff estimate as per the norm. The parameters of neighboring CTRs reside in *Table 3K*.

Table 3K: Neighboring FIR/CTR/ACC Parameters

Neighboring FIR	Primary Frequency	Handoffs
Havana FIR (MUFH)	124.550	**Radar (LOA)**
Port-Au-Prince FIR (MTEG)	123.700	**Radar (LOA)**
Curaçao FIR (TNCF)	124.100	**Radar (LOA)**
Barranquilla FIR (SKEC)	128.400	Procedural
Panama FIR (MPZL)	133.300	Procedural
CenAmer FIR (MHTG)	124.300	Procedural

3.12.3 Handoff Estimate Reports

Handoff Estimate Reports should be sent by Area Radar for all aircraft bound for neighboring CTR positions. They should contain the following elements:

1. Callsign
2. AC Type
3. Assigned Squawk Code
3. TCP (Transfer-of-Control Point)
4. Flight Level/Altitude
5. ETA TCP

☎️ *Example: MPZL Handoff Estimate (G-OMEA)*

MKJK_CTR:	PANAMA, Kingston, transfer estimate: G-OMEA C550 SQ6714 **DUXUN** FL320 1903Z
MPZL_CTR:	KINGSTON, Panama, copy ETA for G-OMEA. Transfer of control approved.

☎️ *Example: MTEG Handoff Estimate (DCM1492)*

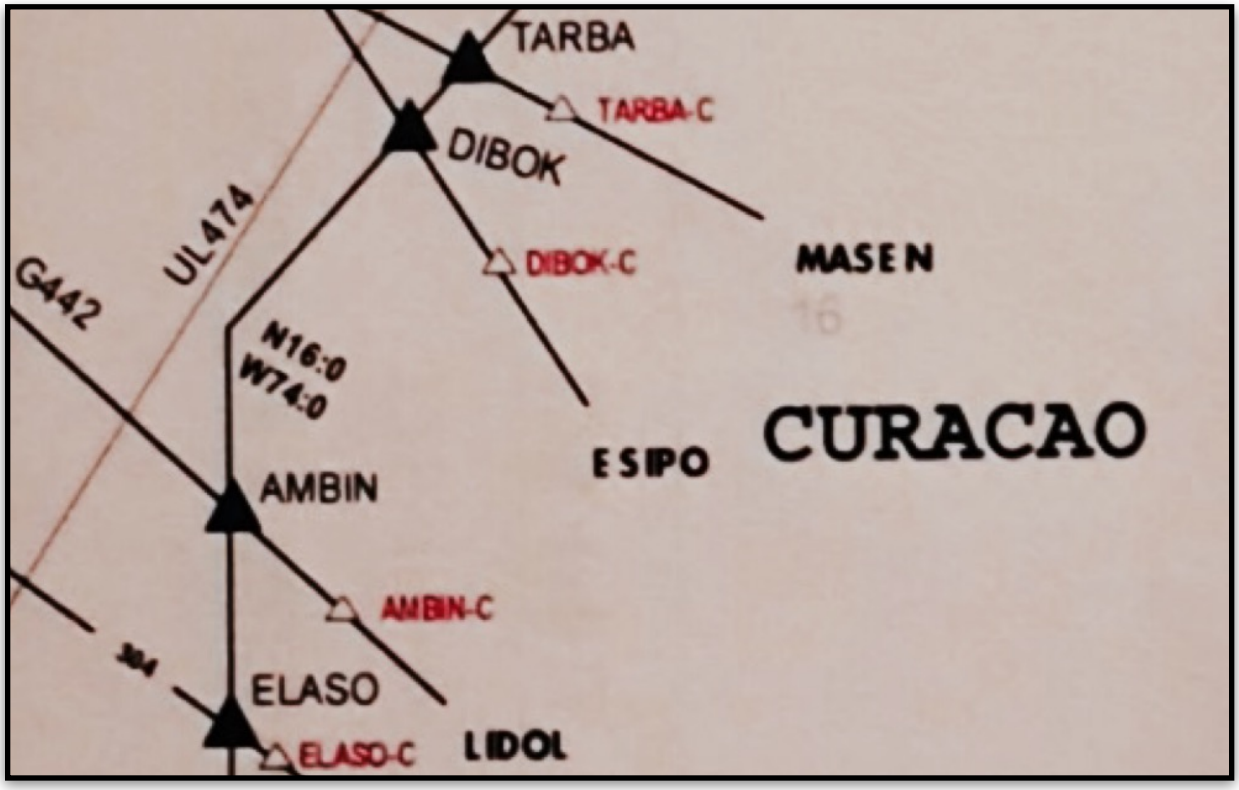
MKJK_CTR:	PORT-AU-PRINCE, Kingston, transfer estimate: DCM1492 C56X SQ6711 **KEBET** FL350 1931Z
MTEG_CTR:	KINGSTON, Port-au-Prince, copy ETA for DCM1492. Transfer of control approved.

3.12.4 Coordination with Curaçao FIR/ACC

As per the MKJK-TNCF LOA, area handoffs from Kingston to Curaçao are initiated at pre-set points which mirror the regular TCPs due to Curacao's limited radar coverage in the northwest corner of their CTA. These points are listed in the LOA and demarcated in the EuroScope files by small blue marks.

Table 3L: Curaçao FIR Artificial TCPs with Coordinates

UA511	UL795	UG442	UL674
TARBA-C	**DIBOK-C**	**AMBIN-C**	**ELASO-C**
N16.25.48.000 *W73.17.14.000*	*N16.05.38.000* *W73.27.21.000*	*N15.29.46.000* *W73.45.15.000*	*N15.11.44.000* *W73.54.12.000*



Note: The above TCPs are being used instead of TARBA, DIBOK, AMBIN, & ELASO in uniformity with real-world procedures. These TCPs are slightly further along their routes in order to reach CURAÇAO's area of radar coverage.

3.13 Handling of Overflights

3.13.1 Standards

An overflight is any aircraft which enters the CTA/FIR from outside and exits the CTA/FIR at another point without the intention of taking off or landing. Such aircraft receive the following services:

a) Enroute Radar Separation
b) Flight Information Services, upon request

Example: Handling of Overflights (1)

AAL959 - IFR		**C56X/L**
CITYPAIR	**CFL**	**Filed Routes**
KMIA - MPTO	370	EONNS A509 URSUS UL780 DAGUD

AAL959:	KINGSTON RADAR, American 959 is 25 north of GONIS at level 370.
MKJK_CTR:	AMERICAN 959, Kingston Radar, good afternoon. Reset transponder, squawk 6721.
AAL959:	Roger, 6721 in the box, American 959.
MKJK_CTR:	AMERICAN 959, radar contact FL370, 15 miles north of GONIS. Welcome aboard.
MKJK_CTR:	AMERICAN 959, radar services are terminated. Change to UNICOM, 122.8. Have a good one.

Example: Handling of Overflights (2)

DCM1492 - IFR		**C56X/L**
CITYPAIR	**CFL**	**Filed Routes**
MHTG - MTPP	350	BTO UR645 ROA UR644 CISNE UB520 MLY UG633 KEBET ETBOD

DCM1492:	KINGSTON RADAR, DotCom 1492 is 15 miles west of PESTO, FL350
MKJK_CTR:	DOTCOM 1492, Kingston Radar, good afternoon. Reset transponder, squawk 6711.
DCM1492:	Roger, 6711 in the box, DotCom 1492.
MKJK_CTR:	DOTCOM 1492, radar contact FL350, 10 miles west of PESTO. Welcome aboard.
DCM1492:	Roger, 1492.
MKJK_CTR:	DOTCOM 1492, contact Port-Au-Prince on 123.7.

3.13.2 Enroute Routing Amendments (Shortcuts)

For aircraft departing or overflying the CTA airspace, Area Radar has the power to offer routing shortcuts if an aircraft's route appears less than optimal.

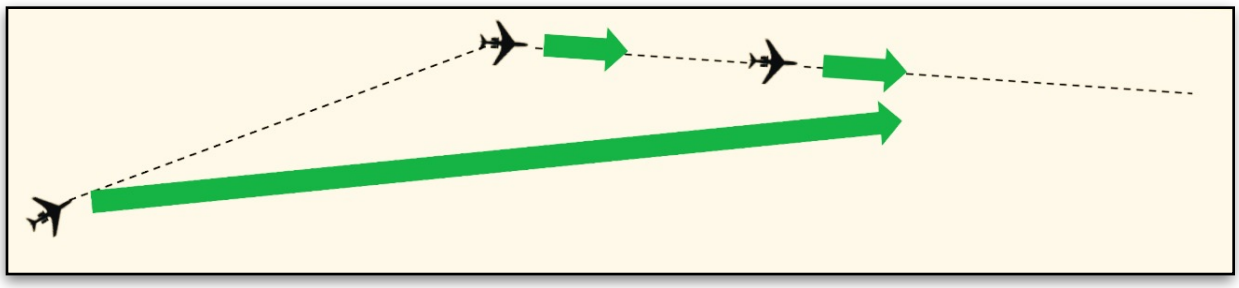
Shortcut Phraseology

> **"<CALLSIGN>, a shortcut is available, direct <WAYPOINT>. Do you accept?."**

Example: Enroute Shortcut

MKJK_CTR:	DOTCOM 1492, a shortcut is available, direct KEBET. Do you accept?
DCM1492:	Roger, will accept direct KEBET, DotCom 1492.
MKJK_CTR:	DOTCOM 1492, roger, proceed direct KEBET.

Figure 3M: Routing Shortcuts



3.13.3 Step Climbs

Some flight plans call for an incremental climb (a "step") up to a more fuel-efficient cruising level. So long as there is no conflict, these are as easy as approving any level change.

Example: Enroute Step Climb

CMP227:	KINGSTON RADAR, Copa 227 requesting scheduled step-climb to FL410.
MKJK_CTR:	COPA 227, approved as requested. Climb FL410.
CMP227:	Roger, climb FL410, Copa 227.

3.13.4 AFK Requests

ACC controllers will often get "AFK", or "Away-From-Keyboard" Requests from overflying pilots who need to leave their session unattended for a few minutes to attend to personal matters without disconnecting from VATSIM. As long as there is no imminent traffic conflict this can always be approved.

Example: AFK Request

CMP227:	KINGSTON RADAR, Copa 227 requesting to step away from the computer briefly.
MKJK_CTR:	COPA 227, approved as requested. Report when back.
CMP227:	We'll call you when we get back, thanks, Copa 227.

3.14 Provision of Top-Down Services

"Top-Down" is a term that refers to Area Radar (CTR)'s control of underlying subordinate APP and TWR airspaces when they are uncontrolled by their proper owner (who is offline).

Example: Manley Arrival (Top-Down)

AJT827 - IFR		**H/B762/L**
CITYPAIR	**CFL**	**Filed Route**
KMIA - MKJP	390	URSUS EMABU MLY

AJT827: KINGSTON RADAR, Amerijet 827 passing FL360, 25 miles northwest of EMABU.

MKJK_CTR: AMERIJET 827, Kingston Radar, squawk 6732.

AJT827: Roger, 6732 in the box, Amerijet 827.

MKJK_CTR: AMERIJET 827, radar contact FL355, 17 miles north of EMABU. Proceed direct KEYNO. Descend at pilot's discretion to 6,000. QNH 1015.

AJT827: Roger, direct KEYNO, down to 6,000 my discretion, 827.

MKJK_CTR: AMERIJET 827 HEAVY, descend 5,000.

AJT827: Down to 5,000, 827 Heavy.

MKJK_CTR: AMERIJET 827 HEAVY, descend and maintain 4,000, at KEYNO, cleared ILS approach runway 12.

AJT827: 4,000 until established, at KEYNO cleared ILS 12 approach, Amerijet 827 heavy.

MKJK_CTR: AMERIJET 827 HEAVY, cleared to land runway 12. Winds 120 degrees, 10 knots.

AJT827: Cleared to land 12, 827.

MKJK_CTR: AMERIJET 827, landed time 34, welcome to Manley, vacate the runway to your left when able, taxi to the gate of your choice, this frequency.

Example: Owen Roberts Arrival (Top-Down)

C-FMPA - IFR		**PC12/G**
CITYPAIR	**CFL**	**Filed Route**
MKJS - MWCR	260	UR640

C-FMPA:	KINGSTON RADAR, Pilatus CPA is through 10,000 for 14,000.
MKJK_CTR:	C-FMPA, Kingston Radar, good morning. Climb FL260.
C-FMPA:	Up to 260, C-FMPA.
MKJK_CTR:	PILATUS CPA, when ready, descend pilots discretion to 1,500.
C-FMPA:	1,500 at our discretion, Pilatus CPA.
MKJK_CTR:	C-FMPA, you're entering Procedural airspace. Radar services are terminated. Remain on this frequency and report 30 DME GCM.
C-FMPA:	Call 30 DME GCM, C-FMPA.
C-FMPA:	30 DME GCM, C-FMPA.
MKJK_CTR:	C-FMPA, roger, next report 15 DME GCM.
C-FMPA:	15 DME GCM, C-FMPA.
MKJK_CTR:	C-FMPA, roger, next report the field in sight or the GCM VOR, whichever comes first.
C-FMPA:	We'll call the field or GCM, C-FMPA.
C-FMPA:	Field in sight, C-FMPA.
MKJK_CTR:	C-FMPA, roger, cleared visual approach runway 08. Join and report right downwind.
C-FMPA:	Established right downwind 08, C-FMPA.
MKJK_CTR:	C-FMPA, cleared to land runway 08. Surface winds 100 degrees, 13 knots.
C-FMPA:	Cleared to land runway 08, C-FMPA.
MKJK_CTR:	C-FMPA, landed time 27, welcome to Owen Roberts, vacate runway via delta when able, remain on this frequency.

Example: Airport-to-Airport (Top-Down)

PEG28 - IFR		**BE9L/G**
CITYPAIR	**CFL**	**Filed Route**
MKJS - MWCB	180	A511

PEG28: KINGSTON RADAR, PegJet 28 is on the ground at Sangster, request IFR clearance to the Brac.

MKJK_CTR: PEGJET 28, Kingston Radar, good day: Clearance is to the Brac airport via the A511. Climb and maintain 5000. After departure expect radar vectors NUBOX. Squawk 0704.

PEG28: Cleared to the Brac as filed, up to 5000, radar vectors, squawk 0704, PegJet 28.

MKJK_CTR: PEGJET 28, readback is correct. Sangster QNH is 1013, runway 07 in use. Call me for Taxi.

PEG28: KINGSTON RADAR, PegJet 28 request taxi 07.

MKJK_CTR: PEGJET 28, taxi via alpha, holding point runway 07.

PEG28: Alpha to holding point 07, PegJet 28.

PEG28: PegJet 28 is ready to go, holding on alpha.

MKJK_CTR: PEGJET 28, after departure turn left heading 030. Winds 080 degrees 9 knots. Runway 07, cleared for takeoff.

PEG28: Heading 030, cleared for takeoff 07, PegJet 28.

MKJK_CTR: PEGJET 28, airborne 13, radar contact climbing through 1,000. Turn left heading 300, climb FL180, proceed direct NUBOX when able. Resume own navigation.

PEG28: Left 300 direct NUBOX, up to FL180, own navigation, PegJet 28.

MKJK_CTR: PEGJET 28, Brac QNH is 1012. When ready, at pilot's discretion, descend to cross BETAR at 7,000.

PEG28: 1012, when ready down to cross BETAR at 7, PegJet 28.

MKJK_CTR: PEGJET 28, you're entering procedural airspace. Radar services are terminated. Remain on this frequency and descend and maintain 1,500.

PEG28: Remain this frequency and descend 1,500, PegJet 28.

MKJK_CTR: Report the field in sight or the CBC NDB, whichever comes first.

PEG28: We'll call the field or CBC, whichever comes first, PegJet 28.

PEG28: PegJet 28 has the Brac aerodrome in sight.

MKJK_CTR: PEGJET 28, cleared visual approach runway 09. Join and report right downwind.

PEG28: Cleared visual 09, join and report the right downwind, PegJet 28.

PEG28: PegJet 28 is right downwind 09.

MKJK_CTR: PEGJET 28, surface winds 090 degrees 10 knots. Runway 09, cleared to land.

PEG28: Cleared to land 09, PegJet 28.

MKJK_CTR: PEGJET 28, landed time 35, welcome to the Brac. Exit left when able, taxi via alpha to the ramp.

Example: Sangster Arrival (Top-Down)

DAL317 - IFR		**B739/L**
CITYPAIR	**CFL**	**Filed Route**
KATL - MKJS	350	VRSTY2 MCN AMG CRG OMN URSUS GONIS UW10 SIA

DAL317: KINGSTON RADAR, Delta 317 is level at 340, 20 miles from GONIS.

MKJK_CTR: DELTA 317, Kingston Radar, good morning. Proceed direct LENAR. Descend at pilot's discretion to 3,000. QNH 1015.

DAL317: Roger, direct LENAR, down to 3,000 my discretion, 317.

MKJK_CTR: DELTA 317, Sangster Airport information Alpha is now current. Expect VOR/DME approach runway 07.

DAL317: Delta 317 has Alpha, expecting VOR/DME 07.

MKJK_CTR: DELTA 317, maintain 3,000 until established, at LENAR, cleared VOR/DME approach runway 07.

DAL317: 3,000 until established, at LENAR cleared VOR/DME 07 approach, Delta 317.

MKJK_CTR: DELTA 317, cleared to land runway 07. Winds 080 degrees, 10 knots.

DAL317: Cleared to land 07, Delta 317.

MKJK_CTR: DELTA 317, landed time 21, welcome to Sangster, vacate the runway to your right when able, taxi to the gate of your choice via Alpha, remain on this frequency.