

Kingston FIR Publications

Volume 4

Training Manual

By: Maciek Bruzdowicz, Director of Training, Kingston FIR



Table of Contents

- **4.I Record of Revisions**
- **4.ii Table of Contents**
- **4.iii Introduction**
- **4.iV Career Progression**
- **4.V Methods of Training**
- **4.Vi Testing and Grading**

- **4.1 Stage 1 - New Joiner (No Rating) to Ground Controller (S1)**
- 4.1.1 VATCAR Student Rating Advancement Course
- 4.1.2 VATCAR Tower Controller - Student (S1) Rating Advancement Course
- 4.1.3 Kingston Exam 2.1 Basic ATC Phraseology
- 4.1.4 Kingston Exam 2.2 Tower ATC Phraseology
- 4.1.5 Kingston Exam 1.1 Basic Standard Operating Procedures (SOP)
- 4.1.6 Lesson 1.1 (VRC) Configuration Setup
- 4.1.7 Lesson 1.2 (SB) Clearance Delivery and Ground Control
- 4.1.8 Lesson 1.3 (SB) Clearance Delivery and Ground Control
- 4.1.9 Stage 1 Check (SB) Ground Control
- 4.1.10 Privileges Earned
- 4.1.11 Requirements for Advancement to Stage 2

- **4.2 Stage 2 - Ground Controller (S1) to Tower Controller (S1)**
- 4.2.1 Video: Aerodrome Briefing - MKJS/MBJ Sangster Int'l
- 4.2.2 Video: Aerodrome Briefing - MKJP/KIN Manley Int'l
- 4.2.3 Kingston Exam 1.2 Tower Standard Operating Procedures (SOP)
- 4.2.4 Lesson 2.1 (SB) GCM Tower
- 4.2.5 Lesson 2.2 (SB) MBJ Tower
- 4.2.6 Lesson 2.3 (SB) KIN Tower
- 4.2.7 Lesson 2.4 (VRC) Tower
- 4.2.8 Stage 2 Check (SB) Tower
- 4.2.9 Privileges Earned
- 4.2.10 Requirements for Advancement to Stage 3

- **4.3 Stage 3 - Tower Controller (S1) to Junior Approach Controller (S3)**
- 4.3.1 VATCAR TMA Controller - Senior Student (S3) Rating Advancement Course
- 4.3.2 Kingston Exam 2.3 Approach ATC Phraseology
- 4.3.3 Kingston Exam 1.3 Approach Standard Operating Procedures (SOP)
- 4.3.4 Lesson 3.1 (SB) GCM Approach
- 4.3.5 Lesson 3.2 (SB) MBJ Approach
- 4.3.6 Lesson 3.3 (SB) MBJ Approach
- 4.3.7 Lesson 3.4 (VRC) MBJ Approach
- 4.3.8 Stage 3 Check (SB) MBJ Approach
- 4.3.9 Privileges Earned
- 4.3.10 Requirements for Advancement to Stage 4

- **4.4 Stage 4 - Junior Approach Controller (S3) to Senior Approach Controller (S3)**
- 4.4.1 Lesson 4.1 (SB) KIN Approach
- 4.4.2 Lesson 4.2 (VRC) KIN Approach
- 4.4.3 Stage 4 Pre-Check KIN Approach
- 4.4.4 Privileges Earned
- 4.4.5 Lesson 4.3 (SB) /MBJ Approach High Density
- 4.4.6 Stage 4 Check MBJ High Density Fly-In Simulation
- 4.4.7 Privileges Earned
- 4.4.8 Requirements for Advancement to Stage 5

- **4.5 Stage 5 - Senior Approach Controller (S3) to Junior Centre Controller (C1)**
- 4.5.1 VATCAR Enroute Controller - Controller (C1) Rating Advancement Course
- 4.5.2 Kingston Exam 2.4 Centre ATC Phraseology
- 4.5.3 Kingston Exam 1.4 Centre Standard Operating Procedures (SOP)
- 4.5.4 Lesson 5.1 (SB) Overflights
- 4.5.5 Lesson 5.2 (SB) Primary Aerodromes
- 4.5.6 Lesson 5.3 (SB) Secondary Aerodromes
- 4.5.7 Lesson 5.4 (VRC) Setup and Practice
- 4.5.8 Stage 5 Check (SB) Centre
- 4.5.9 Privileges Earned
- 4.5.10 Requirements for Advancement to Stage 6

- **4.6 Stage 6 - Junior Centre Controller (C1) to Senior Centre Controller (C1)**
- 4.6.1 Kingston Exam 5.1 Senior Centre Controller
- 4.6.2 Lesson 6.1 (SB) High Density Centre Ops
- 4.6.3 Lesson 6.2 (VRC) Fly-in Lesson
- 4.6.4 Lesson 6.3 (SB) High Density Centre Ops
- 4.6.5 Stage 6 Check (SB) Centre High Density Ops / Fly-in Simulation
- 4.6.6 Privileges Earned
- 4.6.7 Requirements for Advancement to Stage 7

- **4.7 Stage 7 - Senior Centre Controller (C1) to Master Centre Controller (C1/C3)**
- 4.7.1 Kingston Exam 5.2 Master Centre Controller
- 4.7.2 Privileges Earned
- 4.7.3 Requirements for Advancement to Stage 8

- **4.8 Stage 8 - Master Centre Controller (C1/C3) to Instructor (I1)**
- 4.8.1 Kingston Exam 5.2 Instructor
- 4.8.2 Lesson 8.1 (SB) Introduction to SweatBox
- 4.8.3 Lesson 8.2 (SB) Principles of Instructing
- 4.8.4 Lesson 8.3 (VRC) Instruction on VRC
- 4.8.5 Stage 8 Check (SB)
- 4.8.6 Privileges Earned

- **4.9 Visiting Controller Training**
- 4.9.1 Visiting with a Student (S1) Rating and less than 30 hrs experience
- 4.9.2 Visiting with a Student (S1) Rating and more than 30hrs experience
- 4.9.3 Visiting with a Sr. Student (S3) Rating and less than 30hrs experience on APP
- 4.9.4 Visiting with a Sr. Student (S3) Rating and more than 30hrs experience on APP
- 4.9.5 Visiting with a Controller (C1) Rating and less than 50hrs experience on CTR
- 4.9.6 Visiting with a Controller (C1) Rating and more than 50hrs experience on CTR
- 4.9.7 Visiting with a Sr. Controller (C3) or Instructor (I1) Rating

- **4.10 Transferring Controller Training**
- 4.10.1 Transferring with a Student (S1) Rating and less than 30 hrs experience
- 4.10.2 Transferring with a Student (S1) Rating and more than 30hrs experience
- 4.10.3 Transferring with a Sr. Student (S3) Rating and less than 30hrs experience on APP
- 4.10.4 Transferring with a Sr. Student (S3) Rating and more than 30hrs experience on APP
- 4.10.5 Transferring with a Controller (C1) Rating and less than 50hrs experience on CTR
- 4.10.6 Transferring with a Controller (C1) Rating and more than 50hrs experience on CTR
- 4.10.7 Transferring with a Sr. Controller (C3) or Instructor (I1) Rating
- 4.10.7 Transferring with real life ATC experience

- **4.11 Recurrent Training**
- 4.11.1 Introduction to Recurrent Training

- Table 4.1 Training File

(Intentionally Left Blank)

4.iii Introduction

The purpose of Vol. 4 Training Manual is to outline the training and testing requirements for career progression within Kingston FIR. It is designed for use by students, seasoned controllers and instructors alike.

The student can use this manual to keep track of their career progression, and next steps required for advancement. Each topic describes how to prepare for a given lesson, check, or exam. Completion standards are also provided, so that the student knows what level of competence is required. Requirements for advancement to the next Stage are also explained.

Controllers can view their recurrent training requirements and prepare for their semi-annual recurrent training and testing. Controllers transferring to Kingston FIR from other regions, as well as visiting controllers will find information on integration into the Kingston FIR standards and positions.

An instructor can use this manual to prepare for lessons, and answer student's questions.

4.iV Career Progression

The career progression at Kingston FIR has been divided into Stages. Each Stage usually contains written exams, both mandated by VATCAR, as well as those tailored for Kingston FIR. In addition a student can expect lessons with an instructor or mentor behind the scope. A Stage is a unit of training and usually ends with a Stage Check that enables the student to work a new position within Kingston FIR. After completion of a Stage, there may be special requirements that must be met, before a subsequent stage is attempted.

The stage system ensures that a high quality of training is provided, and that the Kingston FIR remains its reputation for providing top quality virtual ATC services on VATSIM. The use of the stage systems also created a clear path of career progression, which fosters continued education and keeps the trainee interested.

4.V Methods of Training

Kingston FIR Training Department uses a multifaceted approach. There are various training methods used:

- Kingston FIR Publications
 - Vol. 1 Standard Operating Procedures (SOP) Manual
 - Vol. 2 ATC Phraseology Manual
 - Vol. 3 Desktop Quick Reference Chart
 - Vol. 4 Training Manual
- VATCAR Advancement Courses
- Kingston Computer Based Written Exams: Multiple Choice, Matching, T/F, Essay questions
- Videos
- Lessons (SB): Instruction given using SweatBox ATC Simulation software
- Lessons (VRC): Over the shoulder instruction given using VRC software
- Checks (SB): Checks given using SweatBox software with synthetic traffic
- Checks (VRC) Checks given using VRC software with real traffic

4.Vi Testing and Grading and Completion Standards

Students must complete each item in a Stage, in addition to a Stage Check. Failure to complete an item results in additional training, and a second attempt. If an item is failed for a second time, a meeting with FIR Chief, his Assistant, and Director of Training will be scheduled to review further options.

The following are completion standards for various events:

- Kingston Computer Based Written Exams: 80%
- VATCAR Advancement Courses: as per VATCAR policy
- Videos: View. Knowledge tested via written exam
- Lessons (SB): Completion Standards listed in the lesson plan
- Lessons (VRC): Completion Standards listed in the lesson plan in addition to specified required minimum traffic volume
- Checks (SB): Completion Standards listed
- Checks (VRC) Completion Standards listed in addition to specified required minimum traffic volume

(Intentionally Left Blank)

4.1 Stage 1 - New Joiner (No Rating) to Ground Controller (S1)

4.1.1 VATCAR Student Rating Advancement Course

a. Purpose: The Student Rating Advancement Course is designed to initiate VATCAR members with a rating of Pilot/Observer in their Online Air Traffic Control career.

b. What Is It: This course covers in depth the Basic ATC and Ground ATC Study Guides and the use of the VRC software for Clearance Delivery and Ground Control ATC Service.

c. How to Prepare: Study the VATCAR Basic ATC and Ground ATC Study Guides

d. Completion Standards: Pass the Course

4.1.2 VATCAR Tower Controller - Student (S1) Rating Advancement Course

a. Purpose: The Tower Course is designed to initiate VATCAR members in their Online Air Traffic Control career.

b. What Is It: This course covers in depth the Tower ATC Study Guide and the use of the VRC software.

c. How to Prepare: Study the VATCAR Tower ATC Study Guide.

d. Completion Standards: Pass the Course. After successfully completing this course you should contact your Director of Training in order to meet the local competency check requirements prior to being awarded the Student Rating (S1) which will allow you to begin providing online ATC services within VATCAR and start your lessons.

4.1.3 Kingston Exam 2.1 Basic ATC Phraseology

a. Purpose: To learn the basics of proper ATC communication. Including choice of words, message composition, readback requirements, callsigns, and ATC facilities within Kingston FIR. In addition emergency communications and conflict resolution are covered.

b. What Is It: Multiple choice, matching and fill in the blank questions

c. How to Prepare: Study sections 2.1, 2.5 and 2.6 of the Vol. 2 ATC Phraseology Manual.

d. Completion Standards: A score of 80% is required to pass.

4.1.4 Kingston Exam 2.2 Tower ATC Phraseology

a. Purpose: To learn the principles of Tower communications. Including ATIS recording, clearance delivery, ground movement, takeoff and landing instructions, handling of VFR flights, helicopters and arrivals as well as coordination with approach control.

b. What Is It: Multiple choice, true or false and essay questions

c. How to Prepare: Study sections 2.1 and 2.2 of the Vol. 2 ATC Phraseology Manual

d. Completion Standards: A score of 80% is required to pass. Note, essay questions are not graded automatically, and your score will not take into account these questions until they are manually graded by an administrator.

4.1.5 Kingston Exam 1.1 Basic Standard Operating Procedures (SOP)

a. Purpose: To learn the basic SOPs under which Kingston FIR operates. These include rules of conduct, position descriptions, restrictions and policies, currency requirements, leave of absence and career progression.

In addition, knowledge of SOPs that are applicable to Ground Control, including LOAs (Letter of Agreements) will be tested.

b. What Is It: Multiple choice questions.

c. How to Prepare: Study sections 1.1 of the Vol. 1 Standard Operating Procedures (SOP) Manual and parts of 1.2 that relates to Ground Control. Also study the airport layout as depicted in the airport diagrams.

d. Completion Standards: A score of 80% is required to pass.

4.1.6 Lesson 1.1 (VRC) Configuration Setup

a. Objective: To ensure the configuration of the student's VRC software is satisfactory, and the student has basic working knowledge of VRC software.

b. Location: MBJ/KIN/GCM

c. Schedule: 15min

d. Materials: VRC Configuration Checklist

e. Prior Prep:

- The student should follow the VRC Configuration Checklist to set up their software.
- Self-study of the VRC manual should be completed prior to this lesson.

f. Elements:

- Session profile created for each position
- General settings configuration
- Comms panel configured for each position
- Weather panel configuration
- Radar mode selection
- Correct View selection
- Testing of the intercom and radio check
- Flight strip bay use
- Question/ Answer session regarding VRC features

g. Common Errors:

- Students configured VRC wrong
- Students not familiar with VRC

h. Instructor Actions: Verify student's software matches the VRC Configuration Checklist, check students microphone speakers with a radio check and an intercom call, verify the

student has basic knowledge of VRC through questions, including pulling up flight strips, amending flight plans, selecting frequencies, zooming in and out, panning, working with weather panels.

I. Completion Standards: Student's have a properly configured VRC and is able to connect to a position and transmit and receive on the radio and intercom. Student has a working knowledge of the VRC functions, and can operate the software with minimal coaching from the instructor.

4.1.7 Lesson 1.2 (SB) Clearance Delivery and Ground Control

a. Objective: To introduce the student to principles of clearance delivery and ground control. The emphasis is on correct phraseology and sequence of events. Introduction to MBJ

b. Location: MBJ

c. Schedule: 20min

d. Materials: MBJ Airport Diagram

e. Prior Prep:

- Study Section 2.1 Basic Communications and 1.2
- Proficient in Section 2.2.2 and 2.2.3 of the ATC Phraseology Manual
- Review and familiarise yourself with the airport Diagram for MBJ Sangster Int'l Airport. The student should have the airport diagram printed for the lesson.

f. Elements:

- Sangster layout
- Flight Strip pull up/ auto-add
- Flight Strip review
- Altitude assignment, Squawk assignment
- Clearance Issuance
- Readback confirmation
- QNH and Expected Runway
- Push and start clearance
- Taxi instructions

g. Common Errors:

- Students not utilizing standard phraseology
- Students get confused with the sequence of events
- Students forget to assign squawk code/ initial altitude
- Students forget to issue correct QNH setting

h. Instructor Actions: Demonstrate a sample ATC-pilot exchange from the initial call for clearance, to taxi. Demonstrate squawk auto-assignment with the F9 key and initial altitude assignment (14000) with the F8 key.

Then allow the student to practice the clearance delivery/ ground control position with the simulated departing aircraft. Only correct flight strips will be used in this scenario, and instructors should not make intentional mistakes, so that the correct process is taught to the student.

I. Completion Standards: Students should be able to pull up an review a flight strip, assign squawk and altitude, issue the clearance, receive readback, issue QNH and runway assignment, clear for push, start and taxi. Only minor mistakes may occur.

4.1.8 Lesson 1.3 (SB) Clearance Delivery and Ground Control

a. Objective: To fine tune the clearance delivery process, introducing flight plan errors, and incorrect readbacks. The emphasis is on spotting cruising altitude errors for direction of flight and catching pilot readback errors. Introduction to KIN

b. Location: KIN

c. Schedule: 20min

d. Materials: KIN Airport Diagram, Enroute Chart

e. Prior Prep:

- Study Section 2.1 Basic Communications and 1.2
- Proficient in Section 2.2.2 and 2.2.3 of the ATC Phraseology Manual
- Review and familiarise yourself with the airport Diagram for KIN Manley Int'l Airport. The student should have the airport diagram printed for the lesson.
- Review and familiarise yourself with the enroute chart for Kingston FIR. The student should have chart printed for the lesson.

f. Elements:

- Manley layout
- Flight Strip review
- Correct Altitude for direction of flight
- Correct routing
- Catching readback errors
- Hold Push, Hold position instructions
- Taxi instructions with 'hold short of'
- VFR clearance delivery and squawk assignment

g. Common Errors:

- Students not utilizing standard phraseology
- Students fail to stop errors during flight plan review
- Students confused with direction of flight, correct altitude
- Students fail to catch incorrect pilot readback

h. Instructor Actions:

Allow the student to practice the clearance delivery/ ground control position with the simulated departing aircraft. Some incorrect flight strips will be used in this scenario, and instructors should make intentional mistakes on the readback. Demonstrate the correct way of dealing with a pilot who files a wrong flight plan, and a pilot who makes a readback error. Minor instructor input if necessary.

i. Completion Standards: Students should be able to pull up an review a flight strip, and correct any mistakes in it. They should notice and correct readback errors. Consistency with spotting errors is required, and only minor errors allowed.

4.1.9 Stage 1 Check (SB) Ground Control

a. Objective: To assess the students ability to handle all phases of clearance delivery and ground control. Students should adhere to standard phraseology as outlined in Section 2.1 and 2.2.2 and 2.2.3 of the ATC Phraseology Manual.

b. Location: MBJ

c. Schedule: 20min

d. Materials: MBJ Airport Diagram, Enroute Chart

e. Prior Prep:

- Study Section 2.1 Basic Communications and 1.2
- Proficient in Section 2.2.2 and 2.2.3 of the ATC Phraseology Manual
- Review and familiarise yourself with the airport Diagram for MBJ Sangster Int'l Airport. The student should have the airport diagram printed for the lesson.
- Review and familiarise yourself with the enroute chart for Kingston FIR. The student should have chart printed for the lesson.
- Review instructor feedback from lesson 1.2 and 1.3
- Printed copy of MBJ Airport Diagram and Enroute Chart

f. Elements:

- Multiple IFR and VFR departures, and arrivals

g. Common Errors:

- Students not utilizing standard phraseology
- Students fail to stop errors during flight plan review
- Students confuse VFR and IFR flight plans
- Students fail to catch incorrect pilot readback
- Students cause undue delay to pilots awaiting clearance

h. Instructor Actions:

Act in the capacity of pilot only, the student must handle the scenario unassisted

i. Completion Standards: Students should handle all scenario traffic in an efficient manner, using standard phraseology and sequence, without instructor assistance. Only minor phraseology errors are allowed. No aircraft should depart with an incorrect flight strip.

4.1.10 Privileges Earned

- Students who completed Stage 1 Check are authorised to work all Ground positions.

4.1.11 Requirements for Advancement to Stage 2

- Completed Stage 1 Syllabus
- Have logged a minimum of two (2) hours on Ground positions in Kingston FIR

(Intentionally Left Blank)

4.2 Stage 2 - Ground Controller (S1) to Tower Controller (S1)

4.2.1 Video: Aerodrome Briefing - MKJS/MBJ Sangster Int'l

Audiovisual presentation on the threats and features of this aerodrome.

4.2.2 Video: Aerodrome Briefing - MKJP/KIN Manley Int'l

Audiovisual presentation on the threats and features of this aerodrome.

4.2.3 Kingston Exam 1.2 Tower Standard Operating Procedures (SOP)

a. Purpose: To learn tower SOPs for the three tower positions in Kingstin FIR. Local knowledge including LOAs (Letter of Agreements), noise abatement, coordination with approach control, terrain features, and satellite aerodrome knowledge will be tested.

b. What Is It: Multiple choice, T/F, and fill in the blank questions.

c. How to Prepare: Study section 1.2 of the Vol. 1 Standard Operating Procedures (SOP) Manual. View the two Aerodrome Briefing videos provided. Study the airport diagrams and approach places for all three primary aerodromes.

d. Completion Standards: A score of 80% is required to pass.

4.2.4 Lesson 2.1 (SB) GCM Tower

a. Objective: To introduce the student to Tower operations. Learn how to record an ATIS. Introduction to GCM.

b. Location: GCM

c. Schedule: 25min

d. Materials: GCM Airport Diagram, Enroute Chart

e. Prior Prep:

- Review Section 1.2, 2.1, 2.2.2 and 2.2.3 of the ATC Phraseology Manual
- Proficient with material in Section 2.2
- Review and familiarise yourself with the airport Diagram for GCM Owen Roberts Int'l Airport. The student should have the airport diagram printed for the lesson.
- Review and familiarise yourself with the enroute chart for Kingston FIR. The student should have chart printed for the lesson.
- Proficient with METAR weather decoding

f. Elements:

- Owen Roberts layout
- METAR decoding
- Active Runway assignement
- ATIS Recording
- Review of clearance delivery
- Backtracking procedures
- Request for release
- Takeoff/ Landing instructions
- Coordination with approach control

g. Common Errors:

- Students not utilizing standard phraseology
- Students do not know how to read METAR weather observation

- Students do not know how to record an ATIS
- Students do not 'own' departing aircraft with F3 key

h. Instructor Actions:

Allow the student to record an ATIS and check for accuracy, content, loudness and clearness. Give tips on how to record and what to include. Check student knowledge of METAR decoding by supplying a few sample METAR observations to decode. Introduce the intricacies of GCM and allow for practice. Instructor should coach the student and point out all mistakes. No unusual situation should be introduced.

i. Completion Standards: Students should be able interpret METAR weather, select the correct active runway, record an ATIS. In addition, student should be able to handle routine departures and arrivals, including backtracking. Only minor mistakes may occur on newly introduced material.

4.2.5 Lesson 2.2 (SB) MBJ Tower

a. Objective: To fine tune Tower operations. Introduction to VFR traffic, circuit work, helicopters, and unusual situations. Introduction to MBJ.

b. Location: MBJ

c. Schedule: 30min

d. Materials: MBJ Airport Diagram, Enroute Chart

e. Prior Prep:

- Review 4.2.1 Video
- Proficient with material in Section 1.2, 2.1 and 2.2
- Review Section 2.6
- Review the airport Diagram for MBJ Sangster Int'l Airport.
- Review the enroute chart for Kingston FIR.
- Proficient with METAR weather decoding

f. Elements:

- Sangster layout and terrain features
- VFR reporting points in the immediate airport vicinity
- Noise abatement procedures
- VFR departures
- VFR aircraft remaining in the circuit
- Takeoff/ Landing instructions
- Coordination with approach control

g. Common Errors:

- Students not utilizing standard phraseology
- Students loose track of VFR aircraft
- Students fail to adhere to noise abatement procedures
- Students confuse VFR and IFR traffic rules
- Students do not 'own' departing aircraft with F3 key

h. Instructor Actions:

Allow the student to record an ATIS. Run the scenario with minimal pausing. Correct nonstandard phraseology. Make sure flights are controlled according to SOPs. Check for terrain awareness and familiarity with the airport environment.

i. Completion Standards: Students should be able interpret METAR weather, select the correct active runway, record an ATIS, handle IFR and VFR traffic with efficiency and proficiency. Only minor mistakes may occur on newly introduced material. Elements of ground control and clearance delivery should be fully mastered.

4.2.6 Lesson 2.3 (SB) KIN Tower

a. Objective: Mastery of Tower operations. Introduction to KIN.

b. Location: KIN

c. Schedule: 20min

d. Materials: KIN Airport Diagram, Enroute Chart

e. Prior Prep:

- Review 4.2.1 Video
- Proficient with material in Section 1.2, 2.1, 2.2 and 2.6
- Review the airport Diagram for KIN Manley Int'l Airport.
- Review the enroute chart for Kingston FIR.

f. Elements:

- Manley layout and terrain features
- VFR reporting points in the immediate airport vicinity
- Noise abatement procedures
- Tinson Pen traffic
- Coordination with approach control

g. Common Errors:

- Students not utilizing standard phraseology
- Students forget about significant terrain consideration
- Students fail to adhere to noise abatement procedures
- Students confuse VFR and IFR traffic rules

h. Instructor Actions:

Allow the student to record an ATIS. Run the scenario with no pausing. Correct nonstandard phraseology. Make sure flights are controlled according to SOPs. Check for terrain awareness and familiarity with the airport environment.

i. Completion Standards: Students should be able interpret METAR weather, select the correct active runway, record an ATIS, handle IFR and VFR traffic with efficiency and proficiency. Students should be aware of terrain considerations, and coordinate expeditiously with approach. Minimal instructor input is expected.

4.2.7 Lesson 2.4 (VRC) Tower

a. Objective: To put acquired knowledge into practice with real pilots. The student should be able to handle the traffic with proficiency, despite unscripted situations that real traffic may present.

b. Location: Whichever one has traffic.

c. Schedule: Minimum 3 aircraft handled.

d. Materials: All Airport Diagrams, Enroute Chart

e. Prior Prep:

- Review 4.2.1 Videos
- Proficient with material in Section 1.2, 2.1, 2.2 and 2.6
- Review all airport diagrams.
- Review the enroute chart for Kingston FIR.
- Proficient with METAR weather decoding

f. Elements:

- Handle at least 3 aircraft

g. Common Errors:

- Students not utilizing standard phraseology
- Students can't hear voice
- Students confused by flight plans filed with errors
- Students don't read the remarks section of the flight plan

h. Instructor Actions:

Allow the student to record an ATIS. Solicit traffic if there isn't any. Be ready to override the student on the active frequency. Give pointers.

i. Completion Standards: Student should be able to handle the traffic with minimal instructor input.

4.2.8 Stage 2 Check (SB) Tower

a. Objective: To assess the students ability to handle all phases of tower control. Students should adhere to standard phraseology as outlined in Section 2.1, 2.2 and 2.6 of the ATC Phraseology Manual.

b. Location: KIN

c. Schedule: 30min

d. Materials: KIN Airport Diagram, Enroute Chart

e. Prior Prep:

- Review 4.2.1 Videos
- Proficient with material in Section 1.2, 2.1, 2.2 and 2.6
- Review all airport diagrams.
- Review the enroute chart for Kingston FIR.
- Proficient with METAR weather decoding

f. Elements:

- Multiple IFR and VFR departures, and arrivals

g. Common Errors:

- Students not utilizing standard phraseology
- Students confused by flight plans filed with errors
- Students don't read the remarks section of the flight plan

h. Instructor Actions:

Act in the capacity of pilot only, the student must handle the scenario unassisted

i. Completion Standards: Students should handle all scenario traffic in an efficient manner, using standard phraseology and sequence, without instructor assistance. Only minor phraseology errors are allowed. No aircraft should incur undue delay.

4.2.9 Privileges Earned

- Students who pass Stage 2 Check are authorised to work all Tower positions.

4.2.10 Requirements for Advancement to Stage 3

1. Have obtained their Student (S1) Rating in a period of no less than thirty (30) days prior to advancing.
2. Have logged a minimum of ten (10) hours on Tower positions in Kingston FIR

(Intentionally Left Blank)

4.3 Stage 3 - Tower Controller (S1) to Junior Approach Controller (S3)

4.3.1 VATCAR TMA Controller - Senior Student (S3) Rating Advancement Course

- a. Purpose:** Senior Student Rating Advancement Course is designed for VATCAR members who wish to obtain the Senior Student Rating.
- b. What Is It:** This course covers in depth the Approach/ Departure ATC Study Guide and the use of the VRC software.
- c. How to Prepare:** Study the VATCAR App/Dep ATC Study Guide.
- d. Completion Standards:** Pass the Course

4.3.2 Kingston Exam 2.3 Approach ATC Phraseology

- a. Purpose:** To learn standard phraseology required for Approach positions. Including radar identification, SID and STAR use, vectoring and full procedure ILS and non-ILS approaches, VFR aircraft, speed control, holding procedures and traffic pointout.
- b. What Is It:** Multiple choice, T/F, and fill in the blank questions.
- c. How to Prepare:** Study sections 2.3 of the Vol. 2 ATC Phraseology Manual.
- d. Completion Standards:** A score of 80% is required to pass.

4.3.3 Kingston Exam 1.3 Approach Standard Operating Procedures (SOP)

- a. Purpose:** To learn tower SOPs for the three approach positions in Kingstin FIR. Local knowledge including LOAs (Letter of Agreements), SIDs, STARs, Navaids, Approach Procedures, coordination with enroute centre, terrain features including MVA chart, and satellite aerodrome knowledge will be tested.
- b. What Is It:** Multiple choice, T/F, matching and fill in the blank questions.
- c. How to Prepare:** Study section 1.3 of the Vol. 1 Standard Operating Procedures (SOP) Manual as well as all charts and diagrams pertaining to Kingston FIR airspace.
- d. Completion Standards:** A score of 80% is required to pass.

4.3.4 Lesson 3.1 (SB) GCM Approach

- a. Objective:** To introduce the student to approach control. Basics of radar vectoring will be taught and handling of procedural approaches. Introduction to GCM.
- b. Location:** GCM
- c. Schedule:** 20min
- d. Materials:** GCM Airport Diagram, GCM VOR RWY08, MVA Chart, Enroute Chart
- e. Prior Prep:**

- Study all GCM related charts
- Study section 1.3 and 2.3

f. Elements:

- Normal aircraft profile (3:1)
- Radar Vectors for a visual approach (10nm-3000'/ 5nm-1500')
- VOR RWY08 via GCM VOR and via GCM10 Arc
- Approving Tower releases
- Radar identification of departures
- Handoff/ coordination with Centre

g. Common Errors:

- Not utilizing standard phraseology
- Vectoring for a visual either too low or too high on profile
- Failing to monitor aircraft on a full procedure VOR approach
- Handoff to Centre too late
- Forgetting to update temporary altitude with F8

h. Instructor Actions:

Introduce the student to GCM layout and environs. Demonstrate proper positioning for a visual approach for small aircraft, commercial aircraft and heavy aircraft. Demonstrate procedural ATC with a VOR08 approach. Emphasize the need to monitor aircraft according to approach plate under radar. Explain the reasons behind tower's asking for release and possible scenarios for a denied release, or conditional release. Stress the need to handoff to centre before aircraft has to level off at assigned altitude. The scenario has departing aircraft lined up on RWY 08. Ask for release and depart them in sequence. Delete aircraft on short final. This is an approach lesson so we disregard any conflict on the ground. However proper approach procedures need to be stressed.

i. Completion Standards: Students should be able to handle visual approaches and VOR approaches towards the latter part of the lesson. Only occasional prompting from the instructor regarding handoffs.

4.3.5 Lesson 3.2 (SB) MBJ Approach

a. Objective: To continue approach control proficiency. Radar vectoring for ILS will be introduced, along with STAR and SID procedures. Introduction to MBJ.

b. Location: MBJ

c. Schedule: 25min

d. Materials: MBJ Airport Diagram, MBJ ILS RWY07, OMAXI3 STAR, SIDs, MVA Chart, Enroute Chart

e. Prior Prep:

- Study all MBJ related charts
- Study section 1.3 and 2.3

f. Elements:

- Normal aircraft profile (3:1)
- Normal Glideslope profile (318ft per 1nm)
- Radar Vectors for an ILS approach
- MVA considerations
- Speed monitoring and control
- SID and STAR procedures
- Handoff/ coordination with Centre

g. Common Errors:

- Not utilizing standard phraseology
- Vectoring for an ILS either too low or too high on profile

- Failing to monitor aircraft speed
- Turn to intercept the localiser to early or too late
- More than 30 degree intercept angle used
- Heading to intercept parallels the localiser
- Handoff to Centre too late
- Change of routing/ altitude without coordination with centre
- Forgetting to update temporary altitude with F8

h. Instructor Actions:

Introduce the student to MBJ layout and environs. 3000ft at OMAXI, or 1900ft at ANAPA. Standard rate of turn is 3 degrees per second. Stress the importance of monitoring speed, 210kts 15 miles out, 180 joining the Loc. Stress the importance of a 30 degree angle of intercept as being ideal, otherwise the aircraft may overshoot. Use the technique of vectoring aircraft arriving from the north for Lucea Harbour and turning them over the coast for Omaxi. Bring in an aircraft at 230 knots to join the localiser to demonstrate the importance of speed control (delete aircraft after).

i. Completion Standards: Students should be fairly proficient at vectoring for an ILS approach. Should develop a feel for timing the turns to intercept the localiser towards the end of the lesson. Students understand the SID and STAR procedures and why they were established. Coordination and handoffs to Tower/ Centre come naturally.

4.3.6 Lesson 3.3 (SB) MBJ Approach

a. Objective: To master radar vectoring for an ILS approach, and to introduce VFR aircraft, Satellite aerodrome handling and holding procedures.

b. Location: MBJ

c. Schedule: 30min

d. Materials: MBJ Airport Diagram, MBJ ILS RWY07, SIDs and STARs, MVA Chart, Enroute Chart

e. Prior Prep:

- Study all MBJ related charts
- Study section 1.3 and 2.3

f. Elements:

- Normal Glideslope profile (318ft per 1nm)
- Radar Vectors for an ILS approach
- MVA considerations
- Speed monitoring and control
- VFR aircraft
- VFR reporting points in Sangster TMA
- Negril Aerodrome
- Handoff/ coordination with Tower regarding VFR traffic
- Handoff/ coordination with Centre, establishing 'in-trail' separation guidelines
- Holding as published
- Holding as instructed
- Clearance out of holding

g. Common Errors:

- Not utilizing standard phraseology
- Vectoring for an ILS either too low or too high on profile
- Failing to monitor aircraft speed
- Turn to intercept the localiser to early or too late
- Not knowing VFR reporting points
- Holding aircraft when traffic volume doesn't warrant it
- Too much spacing between arriving aircraft

- Aircraft vectored too far out of the way
- Aircraft vectored below the MVA
- Forgetting to update temporary altitude with F8

h. Instructor Actions:

Reiterate point from lesson 3.2 Continue fine tuning the students radar vectoring skills. Introduce realistic distractions and stress the need to prioritize actions and instructions. Use VFR reporting points to get the Student accustomed to recognizing them. Create a need for holding and practice holding both at Omaxi, as well as TMA boundry points. Teach separation techniques for Negril VFR traffic and ILS07 traffic. Suggest the use of position reporting of VFR aircraft to remind the student while they are busy with IFR aircraft.

i. Completion Standards: Students should be proficient at vectoring for an ILS approach. Should develop a feel for timing the turns to intercept the localiser. Coordination and handoffs to Tower/ Centre come naturally. Students can handle VFR aircraft. Holding procedures understood.

4.3.7 Lesson 3.4 (VRC) MBJ Approach

a. Objective: To apply techniques learned in the SweatBox in an unscripted environment with real pilots.

b. Location: MBJ

c. Schedule: Minimum 3 arrivals and 1 departure handled

d. Materials: All MBJ Charts, MVA Chart, Enroute Chart

e. Prior Prep:

- Study all MBJ related charts
- Study section 1.3 and 2.3

f. Elements:

- As required by the situation

g. Common Errors:

- Not utilizing standard phraseology
- Vectoring for an ILS either too low or too high on profile
- Failing to monitor aircraft speed
- Turn to intercept the localiser too early or too late
- Aircraft vectored below the MVA
- Forgetting to update temporary altitude with F8

h. Instructor Actions:

Monitor the student as they provide ATC services. Intervene only if required. Take notes, and email a lesson summary to the student.

i. Completion Standards: Students should handle real world traffic without instructor intervention.

4.3.8 Stage 3 Check (SB) MBJ Approach Control

a. Objective: To assess the students ability to handle all phases of approach control. Students should adhere to standard phraseology as outlined in Section 2.1, 2.3 and 2.6 of the ATC Phraseology Manual and 1.3 of the SOP Manual.

b. Location: MBJ

c. Schedule: 30min

d. Materials: All MBJ Charts, MVA Chart, Enroute Chart

e. Prior Prep:

- Proficient with material in Section 1.3, 2.1, 2.3 and 2.6

f. Elements:

- Multiple IFR and VFR departures, and arrivals

g. Common Errors:

- Not utilizing standard phraseology
- Late handoffs
- Bad radar vectors resulting in go arounds
- Forgetting to update temporary altitude with F8

h. Instructor Actions:

Act in the capacity of pilot only, the student must handle the scenario unassisted

i. Completion Standards: Students should handle all scenario traffic in an efficient manner, using standard phraseology and sequence, without instructor assistance. Only minor phraseology errors are allowed. No aircraft should incur undue delay or be forced to perform a go around.

4.3.9 Privileges Earned

- Students who pass Stage 3 Check are authorised to work MBJ & GCM Approach.

4.3.10 Requirements for Advancement to Stage 4

- Have logged a minimum of ten (10) hours on Approach positions in Kingston FIR

(Intentionally Left Blank)

4.4 Stage 4 - Junior Approach Controller (S3) to Senior Approach Controller (S3)

4.4.1 Lesson 4.1 (SB) KIN Approach

a. Objective: To master previously learned approach techniques. Introduction to KIN and its many satellite aerodromes. Emphasis is on terrain awareness in the most challenging sector of Kingston FIR. Visual, ILS, VOR, and NDB approaches will be covered.

b. Location: KIN

c. Schedule: 35min

d. Materials: All KIN Charts, MVA Chart, VFR Sectional Chart, Enroute Chart

e. Prior Prep:

- Study all KIN related charts
- Study section 1.3 and 2.3
- Study the MVA Chart, and the VFR Sectional Chart noting terrain features

f. Elements:

- Radar Vectors visual approach
- Radar Vectors for an ILS and VOR approach
- SID/STAR
- VOR and NDB approach full procedure
- VFR aircraft
- VFR reporting points in Manley TMA
- Helicopter traffic to/from Newcastle, Jamaica House, Up Park Camp, UWee
- Ken Jones Aerodrome
- Boscobel Aerodrome
- Tinson Pen Aerodrome

g. Common Errors:

- Not utilizing standard phraseology
- Aircraft vectored below the MVA
- Not knowing VFR reporting points
- Turn to intercept the localiser too early or too late
- RWY12 Departing aircraft given a left turnout
- Failure to catch an aircraft CFIT (Controlled Flight Into Terrain)
- Failure to correct a VFR flight plan from north coast with a filed altitude that will not clear terrain
- Failure to prevent Tinson Pen interference with Manley arrivals
- Forgetting to update temporary altitude with F8

h. Instructor Actions:

The main objective of this lesson is to stress the terrain considerations of this sector. To demonstrate, after departure RWY12, turn without clearance left HDG360, 250kts, Rate of climb 1000fpm. The aircraft will hit terrain in 4 min if the student does not catch the error. VFR aircraft should use VFR reporting points to instill them in the students mind. Make sure the student is aware of the minimum acceptable VFR altitude for flight from Ken Jones to Kingston. Correct phraseology where necessary.

i. Completion Standards: Students should have an appreciation for the effects of terrain on operations in the Manley TMA. They should be aware of the minimum altitudes for mountain crossing and strictly adhere to the MVA chart when issuing altitude assignments. ILS, VOR and NDB approaches should not cause confusion and should be handled without any

problems.

4.4.2 Lesson 4.2 (VRC) KIN Approach

a. Objective: To apply techniques learned in the SweatBox in an unscripted environment with real pilots.

b. Location: KIN

c. Schedule: Minimum 2 arrivals and 2 departures

d. Materials: All KIN Charts, MVA Chart, VFR Sectional Chart, Enroute Chart

e. Prior Prep:

- Study all KIN related charts
- Study section 1.3 and 2.3
- Study the MVA Chart, and the VFR Sectional Chart noting terrain features

f. Elements:

- As the situation warrants it

g. Common Errors:

- Not utilizing standard phraseology
- Aircraft vectored below the MVA
- RWY12 Departing aircraft given a left turnout

h. Instructor Actions:

Monitor the student as they provide ATC services. Intervene only if required. Take notes, and email a lesson summary to the student.

i. Completion Standards: Students should handle real world traffic without instructor intervention.

4.4.3 Stage 4 Pre-Check KIN Approach

a. Objective: To assess the students ability to handle all phases of approach control. Students should adhere to standard phraseology as outlined in Section 2.1, 2.3 and 2.6 of the ATC Phraseology Manual and 1.3 of the SOP Manual.

b. Location: KIN

c. Schedule: 20min

d. Materials: All KIN Charts, MVA Chart, Enroute Chart

e. Prior Prep:

- Proficient with material in Section 1.3, 2.1, 2.3 and 2.6

f. Elements:

- Multiple IFR and VFR departures, and arrivals

g. Common Errors:

- Not utilizing standard phraseology
- Late handoffs
- Bad radar vectors resulting in go arounds
- Vectoring below MVA
- Vectoring towards terrain

h. Instructor Actions:

Act in the capacity of pilot only, the student must handle the scenario unassisted

i. Completion Standards: Students should handle all scenario traffic in an efficient manner, using standard phraseology and sequence, without instructor assistance. Only minor phraseology errors are allowed. Students should not forget to update temp. altitudes with F8 key. No aircraft should incur undue delay or be forced to perform a go around. Vectoring an aircraft below MVA automatically fails this check ride.

4.4.4 Privileges Earned

- Students who pass Stage 4 Pre- Check are authorised to work KIN Approach in addition to GCM and MBJ Approach

4.4.5 Lesson 4.3 (SB) MBJ Approach High Density

a. Objective: To expose the student to a high volume of traffic consistent with a large fly-in. This lesson should teach the student to develop and execute a plan of action, to pay attention to detail and standard procedures, and to work traffic in a paced and consistent manner.

b. Location: MBJ

c. Schedule: 25min

d. Materials: All MBJ Charts, MVA Chart, VFR Sectional Chart, Enroute Chart

e. Prior Prep:

- Review Section 2.1, 2.3, 2.6 and 1.3

f. Elements:

- Radar vectors for an ILS approach
- STAR/SID
- Radar vectors for a visual approach
- IFR and VFR traffic
- High traffic volume

g. Common Errors:

- Not utilizing standard phraseology
- Aircraft vectored below the MVA
- Lack of plan
- Not sticking with the plan
- Not following standard SOPs
- Getting overwhelmed
- Unable to recover from errors

h. Instructor Actions:

Demonstrate the need for a plan and give a few examples. Ask the student to formulate a plan. Run the scenario and pause when necessary to re-evaluate the student's plan and confirm that they are executing it. Give pointers on how to work the traffic in a more efficient manner. There should be no pausing towards the end of the scenario. Give feedback at the end.

i. Completion Standards: Students can form and execute a plan of action for any situation. Minimal pausing is required to regroup. Traffic volume handled without undue delay to aircraft.

4.4.6 Stage 4 Check MBJ High Density Fly-In Simulation

a. Objective: To assess the students ability to handle approach control with heavy traffic volume. Students should adhere to standard phraseology as outlined in Section 2.1, 2.3 and 2.6 of the ATC Phraseology Manual and 1.3 of the SOP Manual.

b. Location: MBJ

c. Schedule: 30min

d. Materials: All MBJ Charts, MVA Chart, Enroute Chart

e. Prior Prep:

- Proficient with material in Section 1.3, 2.1, 2.3 and 2.6

f. Elements:

- Multiple IFR and VFR departures, and arrivals

g. Common Errors:

- Not utilizing standard phraseology

- Aircraft vectored below the MVA
- Lack of plan
- Not sticking with the plan
- Not following standard SOPs
- Getting overwhelmed
- Unable to recover from errors

h. Instructor Actions:

Act in the capacity of pilot only, the student must handle the scenario unassisted

i. Completion Standards: Students should handle all scenario traffic in an efficient manner, using standard phraseology and procedures, without instructor assistance. Only minor phraseology errors are allowed. No aircraft should incur undue delay.

4.4.7 Privileges Earned

- Students who pass Stage 4 Check are authorised to work all Approach positions during Fly-Ins

4.4.8 Requirements for Advancement to Stage 5

1. Have obtained their Senior Student (S3) Rating in a period of no less than sixty (60) days prior to advancing.
2. Have logged a minimum of twenty (20) hours on Approach positions in Kingston FIR

(Intentionally Left Blank)

4.5 Stage 5 - Senior Approach Controller (S3) to Junior Centre Controller (C1)

4.5.1 VATCAR Enroute Controller - Controller (C1) Rating Advancement Course

- a. Purpose:** Controller Rating Advancement Course is designed for VATCAR members who wish to obtain the Controller rating.
- b. What Is It:** This course covers in depth the Enroute Centre ATC Study Guide and the use of the VRC software.
- c. How to Prepare:** Study the VATCAR Centre ATC Study Guide.
- d. Completion Standards:** Pass the Course

4.5.2 Kingston Exam 2.4 Centre ATC Phraseology

- a. Purpose:** To learn standard phraseology required for Centre position. Including handling of overflights, transponder reassignment, position reporting, position estimates, relaying of estimates to adjacent FIRs, handling of transition level and supersonic aircraft. Additional items tested include low vs. high altitude speed control, and RVSM compliance.
- b. What Is It:** Multiple choice, T/F, matching and fill in the blank questions.
- c. How to Prepare:** Study sections 2.4 of the Vol. 2 ATC Phraseology Manual.
- d. Completion Standards:** A score of 80% is required to pass.

4.5.3 Kingston Exam 1.4 Centre Standard Operating Procedures (SOP)

- a. Purpose:** To learn the SOPs for the entire Kingstin FIR. Local and international knowledge including LOAs (Letter of Agreements), SIDs, STARs, Nav aids, Airways, RVSM procedures, Approach Procedures, coordination with surrounding enroute centres, and all Kingston FIR facilities, terrain features including MVA chart, and satellite aerodrome knowledge will be tested.
- b. What Is It:** Multiple choice, T/F, matching and fill in the blank questions.
- c. How to Prepare:** Study section 1.4 of the Vol. 1 Standard Operating Procedures (SOP) Manual as well as all charts and diagrams pertaining to Kingston FIR airspace.
- d. Completion Standards:** A score of 80% is required to pass.

4.5.4 Lesson 5.1 (SB) Overflights

a. Objective: To introduce Enroute Centre operations. Focusing on overflights only, associated position reporting and relaying of estimates to adjacent FIRs.

b. Location: CTR

c. Schedule: 20min

d. Materials: Enroute Charts

e. Prior Prep:

- Study all the nav aids and airways on the enroute charts
- Study section 1.4 and 2.4

f. Elements:

- Transponder squawk assigned vs. 2200
- Radar identification after handoff and from Unicom
- Position reporting
- Estimates
- Working out estimates for pilots that can't provide them
- Relay of estimated to adjacent FIRs
- Traffic Pointout
- High altitude speed control

g. Common Errors:

- Not utilizing standard phraseology
- Don't know how to work out estimates
- Traffic pointout in nonstandard format
- Forget traffic pointout

h. Instructor Actions:

Stress the benefit of position reports so that the Centre controller can concentrate on satellite and primary airport traffic. Show how to work out estimates. $(\text{Groundspeed}/60) = \text{miles per minute}$. Use mouse to calculate distance to FIR boundary, then divide by miles per minute and add to current zulu time. Ensure students use the correct format when passing estimated to other FIRs. Stress the importance of correct traffic pointouts in a clear and standard manner so that the aircraft can look for traffic immediately and not get confused.

i. Completion Standards: Students should be familiar with airways and entry/exit point for the FIR. They should solicit estimates from pilots, and in its absence work out their own estimates.

4.5.5 Lesson 5.2 (SB) Primary Aerodromes

a. Objective: To learn the basics of good cooperation and coordination with the Approach facilities when handling arriving and departing aircraft.

b. Location: CTR

c. Schedule: 20min

d. Materials: All Charts

e. Prior Prep:

- Study all charts
- Study section 1.4 and 2.4

f. Elements:

- In-trail spacing
- Use of SID/STAR
- Timely handoffs
- Descents below transition level
- The use of 3:1 rule of thumb for TOD (Top of Descent)
- Helping pilots maintain the 3:1 profile
- High Altitude vs. Low altitude speed control

- Handling supersonic aircraft

g. Common Errors:

- Not utilizing standard phraseology
- Failure to clear an aircraft for a STAR
- Late Handoffs
- Descent below transition level and QNH not issued
- Aircraft allowed to descend too early and then 'dragging it in'
- Mach number/ IAS given when the other should have been used.

h. Instructor Actions:

The main objective of this lesson is to teach seamless coordination with approach. Stress the importance of proper QNH issued when descent below FL180 is given. Suggest a technique of giving descent to FL240 initially in order to prevent the pilots getting low on the 3:1 profile, and in order to delay the issuance of QNH and a descent to 15000 until there is no conflict with departing aircraft. Teach the student speed control with a Mach number assignment and then 'transition to 290 knots' for example. Make sure supersonic aircraft do not accelerate until clear of the coastline.

i. Completion Standards: Students should give and receive handoffs efficiently and in a timely manner. QNH needs to be given to all aircraft descending below FL180. Students should ensure all aircraft use close to the 3:1 profile when issuing descent clearance. No aircraft should level off for an extended period of time.

4.5.6 Lesson 5.3 (SB) Secondary Aerodromes

a. Objective: Introduction to remaining satellite aerodromes in the Kingston FIR. Students will learn multitasking by handling overflights, arrivals and departures from primary airports in addition to learning about secondary aerodromes in this lesson.

b. Location: CTR

c. Schedule: 20min

d. Materials: All Charts

e. Prior Prep:

- Study all charts
- Study section 1.4 and 2.4

f. Elements:

- Little Cayman
- Cayman Brac
- Negril
- Ken Jones
- Boscobel
- Multitasking
- Overflights

g. Common Errors:

- Not utilizing standard phraseology
- Getting 'lost' while panning the scope
- Forgetting about landing/ departing aircraft
- For getting to hand off overflights
- Not noticing an overflight that has entered the airspace
- Aircraft cleared to an altitude below MVA

h. Instructor Actions:

Introduce new aerodromes to the student. Then run the scenario in real time, if possible reminding the student to remember all the traffic under their control. Then later on observe and only give occasional reminders.

i. Completion Standards: Students should be familiar with the layout of the Cayman satellite

aerodromes. Students should be able to multitask and work traffic in various geographical locations without losing track of any of them.

4.5.7 Lesson 5.4 (VRC) Setup and Practice

a. Objective: To set up the students VRC for Centre operations, and to put into real world practice the techniques learned in the SweatBox.

b. Location: CTR

c. Schedule: Minimum 3 overflights, and 3 dep/arr into Jamaican/Cayman airports

d. Materials: All Charts

e. Prior Prep:

- Study all charts
- Study Vol. 1 and Vol. 2 of the Kingston FIR Publications

f. Elements:

- As the situation warrants it

g. Common Errors:

- Not utilizing standard phraseology
- Other errors associated with other sectors (if under CTR control)

h. Instructor Actions:

Monitor the student as they provide ATC services. Intervene only if required. Take notes, and email a lesson summary to the student.

i. Completion Standards: Students should handle real world traffic without instructor intervention.

4.5.8 Stage 5 Check (SB) Centre

a. Objective: To assess the students ability to handle enroute centre. Students should adhere to standard phraseology as outlined in Vol.2 ATC Phraseology Manual and Vol. 1 SOP Manual.

b. Location: CTR

c. Schedule: 30min

d. Materials: All Charts

e. Prior Prep:

- Proficient with material in Vol. 1 and Vol. 2 of the Kingston FIR Publications

f. Elements:

- Multiple IFR and VFR departures, and arrivals to primary and secondary airfields
- Multiple overflights

g. Common Errors:

- Not utilizing standard phraseology
- Getting 'lost' while panning the scope
- Forgetting about landing/ departing aircraft
- For getting to hand off overflights
- Not noticing an overflight that has entered the airspace
- Aircraft cleared to an altitude below MVA

h. Instructor Actions:

Act in the capacity of pilot only, the student must handle the scenario unassisted

i. Completion Standards: Students should handle all scenario traffic in an efficient manner, using standard phraseology and procedures, without instructor assistance. Phraseology should be proficient. No aircraft should incur undue delay.

4.5.9 Privileges Earned

- Students who pass Stage 5 Check are authorised to work the Centre position during normal conditions. Stage 5 students cannot work Centre during Fly-ins.

4.5.10 Requirements for Advancement to Stage 6

1. Have completed Stage 5 in a period of no less than thirty (30) days prior to advancing.
2. Have logged a minimum of twenty (20) hours on Centre

4.6 Stage 6 - Junior Centre Controller (C1) to Senior Centre Controller (C1)

4.6.1 Kingston Exam 5.1 Senior Centre Controller

- a. Purpose
- b. What Is It
- c. How to Prepare
- d. Completion Standards

4.6.2 Lesson 6.1 (SB) High Density Centre Ops

a. Objective: To expose the student to a high volume of traffic consistent with a large fly-in. This lesson should teach the student to develop and execute a plan of action, to pay attention to detail and standard procedures, and to work traffic in a paced and consistent manner.

b. Location: CTR

c. Schedule: 25min

d. Materials: All charts

e. Prior Prep:

- Proficient with material in Vol. 1 and Vol. 2 of the Kingston FIR Publications

f. Elements:

- Multiple IFR and VFR departures, and arrivals to primary and secondary airfields
- Multiple overflights
- High traffic volume

g. Common Errors:

- Not utilizing standard phraseology
- Aircraft vectored below the MVA
- Lack of plan
- Not sticking with the plan
- Not following standard SOPs
- Getting overwhelmed
- Unable to recover from errors

h. Instructor Actions:

Demonstrate the need for a plan and give a few examples. Ask the student to formulate a plan. Run the scenario and pause when necessary to re-evaluate the student's plan and confirm that they are executing it. Give pointers on how to work the traffic in a more efficient manner. There should be no pausing towards the end of the scenario. Give feedback at the end.

i. Completion Standards: Students can form and execute a plan of action for any situation. Minimal pausing is required to regroup. Traffic volume handled without undue delay to aircraft.

4.6.3 Lesson 6.2 (VRC) Fly-in Lesson

a. Objective: To allow the student to work a Fly-in, under supervision to gain experience in high-density centre operations with realistic pilot skill level and coordination with other sectors.

b. Location: CTR

c. Schedule: Minimum of 10 aircraft should be handled in a Fly-in event

d. Materials: All charts

e. Prior Prep:

- Proficient with material in Vol. 1 and Vol. 2 of the Kingston FIR Publications

f. Elements:

- As required

g. Common Errors:

- Not utilizing standard phraseology
- Aircraft vectored below the MVA
- Lack of plan
- Not sticking with the plan
- Not following standard SOPs
- Getting overwhelmed
- Unable to recover from errors

h. Instructor Actions:

Monitor the student as they provide ATC services. Intervene only if required. Take notes, and email a lesson summary to the student.

i. Completion Standards: Students should handle real world traffic without instructor intervention.

4.6.4 Lesson 6.3 (SB) High Density Centre Ops

a. Objective: To consolidate the lessons learned at the Fly-in event in the previous lesson.

b. Location: CTR

c. Schedule: 25min

d. Materials: All charts

e. Prior Prep:

- Proficient with material in Vol. 1 and Vol. 2 of the Kingston FIR Publications

f. Elements:

- Multiple IFR and VFR departures, and arrivals to primary and secondary airfields
- Multiple overflights
- High traffic volume

g. Common Errors:

- Not utilizing standard phraseology
- Aircraft vectored below the MVA
- Lack of plan
- Not sticking with the plan
- Not following standard SOPs
- Getting overwhelmed
- Unable to recover from errors

h. Instructor Actions:

Review the lessons learned during the fly in. Give feedback waht could have been done better. If necessary, Re-create certain situations at the end of this scenario for the student's benefit. Avoid pausing the simulation. Give feedback at the end.

i. Completion Standards: Students can handle high density centre operations without instructor assistance. They can recover from minor errors. No major phraseology, procedural, or SOP errors are committed. Student can be recommended for the Stage 6 Check.

4.6.5 Stage 6 Check (SB) Centre High Density Ops / Fly-in Simulation

a. Objective: To assess the students ability to handle high density enroute centre operations. Students should adhere to standard phraseology as outlined in Vol.2 ATC Phraseology

Manual and Vol. 1 SOP Manual.

b. Location: CTR

c. Schedule: 30min

d. Materials: All Charts

e. Prior Prep:

- Proficient with material in Vol. 1 and Vol. 2 of the Kingston FIR Publications

f. Elements:

- Multiple IFR and VFR departures, and arrivals to primary and secondary airfields
- Multiple overflights

g. Common Errors:

- Only minor errors should be occurring at this stage.

h. Instructor Actions:

Act in the capacity of pilot only, the student must handle the scenario unassisted

i. Completion Standards: Students should handle all scenario traffic in an efficient manner, using standard phraseology and procedures, without instructor assistance. Phraseology and SOPs should be mastered. No aircraft should incur undue delay or go around. No aircraft shall be vectored below the MVA.

4.6.6 Privileges Earned

- Students who pass Stage 5 Check are authorised to work the Centre position including during Fly-ins.

4.6.7 Requirements for Advancement to Stage 7

1. Have joined Kingston FIR in a period of no less than one (1) year prior to advancing.
2. Have logged a minimum of one hundred (100) hours on Centre
3. Have been active and maintained a good report with other FIR members.

(Intentionally Left Blank)

4.7 Stage 7 - Senior Centre Controller (C1) to Master Centre Controller (C1/C3)

4.7.1 Kingston Exam 5.2 Master Centre Controller

4.7.2 Privileges Earned

- Senior Controller (C3) Rating

4.7.3 Requirements for Advancement to Stage 8

- Has served in the capacity of mentor
- Demonstrates knowledge and skills needed to conduct classes, provide practical instruction, and has demonstrated the human skills and patience required for such a position. Maintains this classification by serving in an active role as an instructor.
- Requires Recommendation from Director of Training and FIR Chief
- Requires Approval from VATCAR1 and VATCAR2

4.8 Stage 8 - Master Centre Controller (C1/C3) to Instructor (I1)

4.8.1 Kingston Exam 5.2 Instructor

4.8.2 Lesson 8.1 (SB) Introduction to SweatBox

4.8.3 Lesson 8.2 (SB) Principles of Instructing

4.8.4 Lesson 8.3 (VRC) Instruction on VRC

4.8.5 Stage 8 Check (SB)

4.8.6 Privileges Earned

- Instructor (I1) Rating
- Qualification to conduct training and checking in accordance of Kingston FIR Publications Vol. 4 Training Manual using SweatBox (SB) and VRC.

(Intentionally Left Blank)

4.9 Visiting Controller Training

4.9.1 Visiting with a Student (S1) Rating and less than 30 hrs experience

- Enter the Training Programme at the beginning of Stage 1

4.9.2 Visiting with a Student (S1) Rating and more than 30hrs experience

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.1.8
- Enter the Training Programme at the beginning of Stage 2

4.9.3 Visiting with a Sr. Student (S3) Rating and less than 30hrs experience on APP

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.2.1 / 4.2.2 / 4.2.3 / 4.2.8
- Enter the Training Programme at the beginning of Stage 3

4.9.4 Visiting with a Sr. Student (S3) Rating and more than 30hrs experience on APP

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.2.1 / 4.2.2 / 4.2.3 / 4.3.2 / 4.3.3 / 4.3.4 / 4.3.6 / 4.3.8
- Enter the Training Programme at the beginning of Stage 4

4.9.5 Visiting with a Controller (C1) Rating and less than 50hrs experience on CTR

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.2.1 / 4.2.2 / 4.2.3 / 4.3.2 / 4.3.3 / 4.3.4 / 4.3.6 / 4.4.1 / 4.4.4 / 4.4.6
- Enter the Training Programme at the beginning of Stage 5

4.9.6 Visiting with a Controller (C1) Rating and more than 50hrs experience on CTR

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.2.1 / 4.2.2 / 4.2.3 / 4.3.2 / 4.3.3 / 4.3.4 / 4.3.6 / 4.4.1 / 4.4.4 / 4.4.6 / 4.5.2 / 4.5.3 / 4.5.5 / 4.5.6 / 4.5.8
- Enter the Training Programme at the beginning of Stage 6

4.9.7 Visiting with a Sr. Controller (C3) or Instructor (I1) Rating

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.2.1 / 4.2.2 / 4.2.3 / 4.3.2 / 4.3.3 / 4.3.4 / 4.3.6 / 4.4.1 / 4.4.4 / 4.4.6 / 4.5.2 / 4.5.3 / 4.5.5 / 4.5.6 / 4.5.8
- Enter the Training Programme at the beginning of Stage 6

(Intentionally Left Blank)

4.10 Transferring Controller Training

4.10.1 Transferring - Student (S1) Rating and less than 30 hrs experience

- Enter the Training Programme at the beginning of Stage 1

4.10.2 Transferring - Student (S1) Rating and more than 30hrs experience

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.1.8
- Enter the Training Programme at the beginning of Stage 2

4.10.3 Transferring - Sr. Student (S3) Rating and less than 30hrs experience on APP

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.2.1 / 4.2.2 / 4.2.3 / 4.2.8
- Enter the Training Programme at the beginning of Stage 3

4.10.4 Transferring - Sr. Student (S3) Rating and more than 30hrs experience on APP

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.2.1 / 4.2.2 / 4.2.3 / 4.3.2 / 4.3.3 / 4.3.4 / 4.3.6 / 4.3.8
- Enter the Training Programme at the beginning of Stage 4

4.10.5 Transferring - Controller (C1) Rating and less than 50hrs experience on CTR

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.2.1 / 4.2.2 / 4.2.3 / 4.3.2 / 4.3.3 / 4.3.4 / 4.3.6 / 4.4.1 / 4.4.4 / 4.4.6
- Enter the Training Programme at the beginning of Stage 5

4.10.6 Transferring - Controller (C1) Rating and more than 50hrs experience on CTR

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.2.1 / 4.2.2 / 4.2.3 / 4.3.2 / 4.3.3 / 4.3.4 / 4.3.6 / 4.4.1 / 4.4.4 / 4.4.6 / 4.5.2 / 4.5.3 / 4.5.5 / 4.5.6 / 4.5.8
- Enter the Training Programme at the beginning of Stage 6

4.10.7 Transferring - Sr. Controller (C3) or Instructor (I1) Rating

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.2.1 / 4.2.2 / 4.2.3 / 4.3.2 / 4.3.3 / 4.3.4 / 4.3.6 / 4.4.1 / 4.4.4 / 4.4.6 / 4.5.2 / 4.5.3 / 4.5.5 / 4.5.6 / 4.5.8
- Enter the Training Programme at the beginning of Stage 6

4.10.7 Transferring - Real Life ATC experience

- Complete items 4.1.3 / 4.1.4 / 4.1.5 / 4.1.6 / 4.2.1 / 4.2.2 / 4.2.3 / 4.3.2 / 4.3.3 / 4.5.2 / 4.5.3 /
- Jamaican / Caymanian controllers are automatically qualified on the positions they work
- Enter the Training Programme at the beginning of next applicable stage

4.11 Recurrent Training

4.11.1 Introduction to Recurrent Training

All active members of Kingston FIR must undergo recurrent training every 6 months.
All inactive members of Kingston FIR must undergo recurrent training in order to return to active status.

Details of Recurrent Training Programme will be released with Revision 2 of this Manual.

Table 4.1 Training File