

Piarco FIR
S3 TMA Controller Training Syllabus
(rev. 3)

Course Objective:

The objective of this syllabus is for the trainee to gain the necessary skills, knowledge, and experience to meet the requirements of the *VATSIM S3 TMA Controller Rating*.

Prerequisites:

1. The trainee must be able to fluently read, speak, and understand the English language.
2. Controllers are required to take and pass, VATCAR's online Senior Student Rating Advancement Course before beginning any Approach/Departure training and to acquire ones S3 rating.
3. Tower controllers are required to staff in 2 different TMAs within the FIR before considering proceeding to the next level. One Procedural and One Radar.

Experience Requirements:

1. Controllers are required to log a minimum of 150 – 250 Hours on Tower before considering proceeding to the next level. (Hours can vary based on the Student's knowledge, learning abilities and Mentor/Trainer).

S3 TMA Controller Training Course:

The S3 Rating is made up of multiple skills requirements including both Radar and Non-Radar TMA control procedures. The syllabus is broken down into four stages containing numerous modules. Each stage must be completed within 30 days. Should a trainee fail to advance their current training stage within the 30-day period, he/she shall be academically-rolled back to the beginning of the previous stage.

Each module contains both an academic and a practical lesson. This presents an integrated training process and will promote easier learning and a more efficient training program. Ideally, the academic lesson will be completed prior to the practical phase. Each lesson will also include a briefing and debriefing period.

Testing Procedures:

A stage exam is included with each stage, testing the student on both the academic and practical training material covered throughout the stage. This exam must be passed with a minimum score of 80%, and reconciled to 100% based on the *Piarco FIR OTS Evaluation Guide*, in order to proceed to the next stage.

It is essential that the objective of each module be accomplished before moving on to the next module.

Required Materials for the S3 TMA Controller Course:

1. Piarco FIR Training and Promotions Policy
2. Vatsim ATC Competency Standards
3. Euroscope User's Manual
4. Euroscope Piarco Sector File (*current*)
5. Assigned TMA Standard Operating Procedures
6. Assigned TMA Instrument Approach Procedures Charts (*current*)
7. Sectional and Enroute Charts for Assigned TMA (*current*)
8. Reusable Writing Surface (*Clear plastic sleeves or Dry-erase Whiteboard*)
9. Dry-Erase Pens

Course Outline/Checklist:

Stage/Module	Hours of Instruction	Date of Completion
Stage 1		
Module 1	2.0	
Module 2	2.0	
Module 3	2.0	
Module 4	2.0	
Stage Check 1	2.0	
Total	10.0	
Stage 2		
Module 1	2.0	
Module 2	2.0	
Module 3	2.0	
Module 4	2.0	
Stage Check 2	2.0	
Total	10.0	
Stage 3		
Module 1	2.0	
Module 2	2.0	
Module 3	2.0	
Module 4	2.0	
Stage Check 3	2.0	
Total	10.0	
Stage 4		
Module 1	2.0	
Module 2	2.0	
Stage Check 4	2.0	
Total	6.0	
Course Total	36.0	

STAGE 1

Module 1

INTRODUCTION TO TMA CONTROL

TIME:

1 hour Academic Instruction; 1 hour Practical Instruction

OBJECTIVE:

To introduce the trainee to the basics of Approach Control

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures; Euroscope Manual

NEW LESSON ITEMS:

1. Euroscope setup for Approach Control
2. Airspace Boundaries
3. Airspace Responsibilities
4. Arriving Aircraft Initial Contact
5. Phraseology

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Adequate knowledge of the airspace to include transition level, transition altitude, MSA, entry/exit points
2. Adequate knowledge of duties/responsibilities
3. He/She is able to launch and use Euroscope with the appropriate settings and options
4. Sufficient phraseology understanding and usage
5. He/She is able to perform an initial contact with aircraft arriving into the airspace of responsibility

Module 2

UNCOORDINATED DEPARTURES

TIME:

1 hour Academic Instruction; 1 hour Practical Instruction

OBJECTIVE:

To teach the trainee how to properly handle Departures without coordination

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual

NEW LESSON ITEMS:

1. Advanced Euroscope functions
2. How to work departing traffic as the TMA controller
3. Phraseology

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Sufficient knowledge of Euroscope functions
2. Is able to work multiple departures from initial call-up to the airspace boundary

Module 3

UNCOORDINATED ARRIVALS (INTRUMENT APPROACHES)

TIME:

1 hour Academic Instruction; 1 hour Practical Instruction

OBJECTIVE:

To teach the trainee how to properly work Arrivals without coordination; flight terminating with an instrument approach

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual

NEW LESSON ITEMS:

1. Radar Vectoring (*if applicable*)
2. Procedural Guidance
3. Descent Planning
4. Traffic Separation
5. Phraseology

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Sufficient knowledge of instrument approach procedures
2. Proficient radar vectoring (*if applicable*)
3. Proficient procedural guidance
4. Proper phraseology
5. Good overall radio discipline

Module 4

UNCOORDINATED ARRIVALS (VISUAL APPROACHES)

TIME:

1 hour Academic Instruction; 1 hour Practical Instruction

OBJECTIVE:

To teach the trainee how to properly work Arrivals without coordination; flight terminating with a visual approach

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual

NEW LESSON ITEMS:

1. Radar Vectoring (*if applicable*)
2. Procedural Guidance; Ground References
3. Traffic Visual Separation; "3, 5, and 7"
4. Phraseology

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Sufficient knowledge of visual approach procedures
2. Proficiency in radar vectoring (*if applicable*)
3. Proficiency in procedural guidance
4. Proper phraseology
5. Vigilance in maintaining proper traffic separation

Module 5

STAGE CHECK

TIME:

0.5 hour Academic Exam; 1.5 hour Practical Exam

OBJECTIVE:

To verify the trainee has mastered the required skills taught during Stage 1

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual

NEW LESSON ITEMS:

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Proper management of Departing and Arriving Traffic at low-volume levels
2. Understanding and proper phraseology usage
3. Sufficient knowledge of the airspace in general

STAGE 2

Module 1

TRAFFIC CONFLICTS

TIME:

1 hour Academic Instruction; 1 hour Practical Instruction

OBJECTIVE:

To teach the trainee various ways of dealing with traffic conflicts, and how to recognize potential conflicts

HOME STUDY:

TMA SOPs; Euroscope Manual; Regional Charts

NEW LESSON ITEMS:

1. Using Euroscope functions for advance conflict warning
2. Spotting potential conflicts with flight plan data
3. Lateral deconfliction
4. Vertical deconfliction
5. Longitudinal deconfliction
6. Visual separations

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Proficiency in early conflict detection
2. Proficiency in active conflict avoidance
3. Proficiency in conflict resolution
4. Ability to visualize from pilot's perspective
5. Proper phraseology

Module 2

TRANSITIONING AIRCRAFT

TIME:

1 hour Academic Instruction; 1 hour Practical Instruction

OBJECTIVE:

For the trainee to learn and understand how to properly work aircraft transiting and departing the airspace

HOME STUDY:

TMA SOPs; Euroscope Manual; Regional Charts

NEW LESSON ITEMS:

1. Coordination with adjoining or higher ATC facility
2. Enroute control procedures
3. Phraseology

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Sufficient knowledge of enroute control procedures
2. Proficiency at coordinating with other ATC facilities
3. Proficiency at maintaining proper aircraft separation

Module 3

FULL AIRSPACE CONTROL (LOW-VOLUME)

TIME:

1 hour Academic Instruction; 1 hour Practical Instruction

OBJECTIVE:

For the trainee to demonstrate his/her ability to work the entire airspace of responsibility with a low-volume traffic level.

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual; Regional Charts

NEW LESSON ITEMS:

1. Coordination with lower ATC facility

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Ability to maintain positive control of all aircraft within his/her airspace
2. Proficiency at coordination with a lower ATC facility like Tower or Ground
3. Proficiency at coordination with a higher ATC facility like Center or an adjoining TMA

Module 4

STAGE CHECK

TIME:

0.5 hour Academic Exam; 1.5 hour Practical Exam

OBJECTIVE:

For the trainee to demonstrate the lessons learned in Stage 2

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual; Regional Charts

NEW LESSON ITEMS:

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Complete and proper control of the airspace at low-volume traffic level
2. Good phraseology
3. Good coordination with higher, lower, and adjoining ATC facilities

STAGE 3

Module 1

DEPARTURES (HIGH-VOLUME)

TIME:

1 hour Academic Instruction; 1 hour Practical Instruction

OBJECTIVE:

For the trainee to demonstrate his/her ability to work a high-volume of departing traffic from initial call-up to boundary handoff

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual; Regional Charts

NEW LESSON ITEMS:

1. Methods to maintain Situational Awareness and Attention to Detail during high traffic loads
2. Maintaining good organizational skills

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Sufficient organizational and forward thinking abilities
2. Ability to depart aircraft in a proficient yet timely manner
3. Adherence to separation minimums
4. Proficiency at conflict avoidance during departure and enroute phases

Module 2

ARRIVALS (HIGH-VOLUME)

TIME:

1 hour Academic Instruction; 1 hour Practical Instruction

OBJECTIVE:

For the trainee to demonstrate his/her ability to work a high-volume of arriving traffic from initial call-up to taxi-to-gate

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual; Regional Charts

NEW LESSON ITEMS:

1. Methods to maintain Situational Awareness and Attention to Detail during high traffic loads
2. Maintaining good organizational skills
3. Recognizing trouble

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Sufficient organizational and forward thinking abilities
2. Ability to receive and recover aircraft in a proficient yet timely manner
3. Adherence to separation minimums
4. Proficiency at conflict avoidance during enroute and arrival phases

Module 3

FULL AIRSPACE CONTROL (HIGH-VOLUME)

TIME:

1 hour Academic Instruction; 1 hour Practical Instruction

OBJECTIVE:

For the trainee to demonstrate his/her ability to work the entire airspace including coordination with other controllers via text chat

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual; Regional Charts

NEW LESSON ITEMS:

1. Coordination with Text

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Sufficient organizational and forward thinking abilities
2. Ability to control the entire airspace at a high-volume level of traffic
3. Adherence to separation minimums
4. Proficiency at conflict avoidance
5. Good coordination with other ATC via text

Module 4

STAGE CHECK

TIME:

0.5 hour Academic Exam; 1.5 hour Practical Exam

OBJECTIVE:

For the trainee to demonstrate his/her understanding of all Stage 3 material

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual; Regional Charts

NEW LESSON ITEMS:

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Full and competent control of the entire airspace
2. Good phraseology
3. Good coordination via both text and voice

STAGE 4

Module 1

OTS PREP 1

TIME:

0.5 hour Academic Instruction; 1.5 hour Practical Instruction

OBJECTIVE:

Provide the trainee a low-volume traffic level workup to the OTS Exam

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual; Regional Charts

NEW LESSON ITEMS:

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Sufficient understanding of all material covered to date
2. Proficiency at controlling the entire airspace
3. Good traffic separation practices
4. Good coordination

Module 2

OTS PREP 2

TIME:

0.5 hour Academic Instruction; 1.5 hour Practical Instruction

OBJECTIVE:

Provide the trainee a high-volume traffic level workup to the OTS Exam

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual; Regional Charts

NEW LESSON ITEMS:

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Sufficient understanding of all material covered to date
2. Proficiency at controlling the entire airspace
3. Good traffic separation practices
4. Good coordination

Module 3

STAGE CHECK

TIME:

0.5 hour Academic Exam; 1.5 hour Practical Exam

OBJECTIVE:

For the trainee to demonstrate complete and proper control and coordination of the airspace at a high-volume traffic level

HOME STUDY:

TMA SOPs; TMA Instrument Approach Procedures, Euroscope Manual; Regional Charts

NEW LESSON ITEMS:

COMPLETION STANDARDS:

The lesson is complete when the trainee demonstrates:

1. Sufficient understanding of all material covered to date
2. Proficiency at controlling the entire airspace
3. Good traffic separation practices
4. Good coordination