

VATSIM San Juan CERAP – Aerodrome Controller (S2) Training Syllabus

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Document Information

Purpose

This document provides an outline of the Aerodrome Controller (S2) training course at VATSIM San Juan CERAP and to be used as a guideline for both controllers and their mentors. Download this document and save locally for easy access to information. This information will also be discussed within the introduction module of the course.

Distribution

The San Juan CERAP Aerodrome Controller (S2) Training Syllabus is distributed to all members in training for the Aerodrome Controller rating (S2) at VATSIM San Juan CERAP.

Responsibility

The San Juan CERAP Air Traffic Manager (ATM) and Training Administrator (TA) are responsible for the maintenance of this document. Prior to public release this document requires the approval of the VATSIM Caribbean Division (VATCAR) Training Director.

Updates and changes

This version is the initial release of this document. Any updates to this document are noted in the Table of Revisions section of this document.

Cancellation

This document cancels any previous release version of Aerodrome Controller (S2) training syllabus at the San Juan CERAP.

Table of Revisions

Date (mm/dd/yyyy)	Revision	Editor
04/01/2025	v1.0 - Initial Release	Alfred Tang

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Preface

Welcome to the VATSIM San Juan CERAP Aerodrome Controller (S2) Course!

The San Juan CERAP (Consolidated En-Route Approach Control) (ZSU) is part of the Caribbean Division of the VATSIM network, known as VATCAR. We are pleased you have chosen to join our team of controllers.

The following document is designed to provide you with an overview and details of the training course for Aerodrome Controller (S2) at ZSU. The course is designed in compliance with the VATSIM Global Controller Administration Policy (VATSIM-POL-GCAP) (also known as GCAP) and VATCAR Training Policies with additional materials to supplement controller learning. This syllabus provides students, mentors and instructors a guideline and flow to plan for each lesson and learning outcomes to accomplish.

We are here to ensure you succeed in your goal of becoming a VATSIM controller and look forward to working with you.

Francis Reilly
Air Traffic Manager – San Juan CERAP

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Training Administrator – San Juan CERAP

General Course Information

Course Description

This course provides ZSU controllers the necessary theoretical and practical knowledge to perform tasks independently as a Local Controller (TWR) within the San Juan CERAP airspace on VATSIM.

Learning Outcomes

The learning outcomes of this course should be the competencies outlined in the VATSIM GCAP for Aerodrome Controller (S2):

- a. General
 - i. Demonstrates an understanding of the role of the local (tower) controller.
 - ii. Selects the appropriate runway configuration based on weather, procedure, and operational requirements.
 - iii. Issues appropriate takeoff and departure instructions as needed. Uses prescribed phraseology for takeoff and landing clearances.
 - iv. Defines all parts of a VFR traffic pattern (circuit).
 - v. Ensures aircraft are separated as required.
 - vi. Issues missed approach / go around instructions using prescribed phraseology.
 - vii. Ensures adequate wake turbulence and departure separation exists.
 - viii. Correctly transfers aircraft to the next controller
 - ix. Demonstrates a basic level of scan
- b. Coordination
 - i. Coordinates missed approaches / go arounds with the appropriate controller.
 - ii. Coordinates changes in runway configurations with the appropriate controllers.
 - iii. Coordinates other elements as required with the appropriate controller.

Course Design

Lessons

Lessons for this course are divided into self-learning or trainer-led. Students are expected to complete the video lectures or Computer Based Training (CBT) on their own for the self-learning portion of the course but are strongly encouraged to ask questions to their assigned mentor or instructor (“assigned trainer” hereafter) of VATSIM San Juan CERAP.

Note:

1. *UND ATCast is a free educational video series produced by the John D. Odegard School of Aerospace Sciences at The University of North Dakota, available through their website ([Link](#)). The videos are also available through YouTube in the links listed.*
2. *In any part of this training, students are welcome to accelerate or skip ahead as needed if he/she possess past experience and knowledge in a particular topic from the real world or other simulation networks.*
3. *Suggested maximum length of each trainer-led session is two hours. Mentor-led lessons can be combined into one lesson at the discretion of the assigned trainer provided that good progress are made.*
4. *Modules in trainer-led sessions are to be repeated until the assigned trainer deems the student to have possession of adequate proficiency prior to moving on to the next module.*

Lesson	Self-learning or Trainer-led	Module # and title	Lesson Content or Lesson Plan
	Self-learning	201 – Introduction to Local Control	CBT Presentation
	Self-learning	202 – Runway Selection	CBT Presentation
	Self-learning	203 – Surface Operation	CBT Presentation
	Self-learning	204 – Same Runway Separation	CBT Presentation
	Self-learning	205 – Wake Turbulence Separation	UND ATCast: 02 – Wake Turbulence (Link) CBT Presentation
	Self-learning	206 – Airport Traffic Pattern	UND ATCast: 13 – Airport Traffic Pattern (Link) CBT Presentation
	Self-learning	207 – Overhead Maneuvering	UND ATCast: 12 - Overhead Maneuvering (Link) CBT Presentation
	Self-learning	208 – Introduction to Radar	UND ATCast: 03 – Introduction to Radar (Link) CBT Presentation
	Self-learning	209 – Radar Identification	UND ATCast: 01 – Radar Identification (Link) CBT Presentation

	Self-learning	210 – Transfer of Radar Identification	UND ATCast: 07 – Transfer of Radar Identification (Link) CBT Presentation
1	Trainer-led	211 – ZSU Procedures for Local Controllers	<p>Trainer should review knowledge from Modules 201 to 210 with the students. If the trainer finds any area of deficiency, the trainer shall either provide remedial training during this session or ask the student to review the appropriate materials on their own.</p> <p>Once the trainer has verified that the student is proficient with the previous modules, the trainer will spend the rest of the session presenting local procedures for local (TWR) positions within ZSU. The trainer will also introduce all relevant charts and documents.</p> <p>This module is be repeated until the student is deemed proficient in all local procedures related to local control and all of the previous modules.</p>
Theory Exam (S2 GCAP and ZSU S2 Facility)			<p>Once Module 211 is completed, the assigned trainer will request the S2 GCAP exam and S2 ZSU facility exam from the TA. Complete the exams on the VATCAR Exam Portal after the assigned trainer deemed the student to possess the knowledge to pass the exams. The TA will review and approve the request. In the absence of the TA, the Air Traffic Manager (ATM) may respond to the request.</p> <p>In case the student fails either or both of the exams, the assigned trainer should schedule a special lesson with the students to review questions that were answered incorrectly on the exam, unless the student has indicated that he/she has reviewed the exam on their own, and he/she understands why the answers they provided were incorrect.</p> <p>The failed exam will be reassigned according to the GCAP document, Section 8.5(f)(ii): <i>“Should a candidate fail a written examination, that candidate may be subject to a “cooling off” period. If such a period is imposed, it must not exceed 72 hours from the scoring of the exam. Following a second failure of the same written exam by the candidate then a Division may extend the cooling off period to enable further study.”</i></p>
2	Trainer-led	212 – SJU Sweatbox 1	<p>Scenario: “SJU Local 2”, “SJU Top Down”, “SJU VFR” and/or equivalent</p> <p>Topics:</p> <ul style="list-style-type: none"> - Runway Selection - Surface Operation - Airport Traffic Pattern - Helicopter Operations - Radar Identification (STARS) - Transfer of Radar Identification (STARS)
3	Trainer-led	213 – SJU Sweatbox 2	<p>Scenario: “SJU Local 1”, “SJU Tower (NK)”, and/or equivalent</p> <p>Topics:</p> <ul style="list-style-type: none"> - Wake Turbulence Separation - Same Runway Separation - Overhead Maneuvering (optional)

			- Review runway crossing controller coordination procedures
4	Trainer-led	214 – Other Class C & Class D airports Sweatbox	Scenario: “STT Local”, “SIG Local” and/or equivalent Topics: - Procedures for local control at other Class C airports at ZSU (i.e. STT) - Procedures for local control at Class D airports (e.g. SIG, STX and BQN) - Class D departure release and controller coordination
		215 – Military Operations for Local Controllers	Assigned trainer will present CBT materials or vUSAF training materials on military operation for local control. No sweatbox session required.
5	Trainer-led	216 – Local Pre-solo Evaluation	Scenario: “SJU Local Pre-solo Evaluation”, “SJU Tower OTS Prep” and/or equivalent Assigned trainer shall spend at least <u>30 min</u> to log onto the network Live with the student to ensure that the student is ready for logging online as local controller alone.
Solo Endorsement			When the mentor determines that the student can perform the tasks required of clearance delivery and ground control independently without supervision, the mentor may submit a request for solo endorsement for a period of 7 to 30 days to the Training Administrator (TA) of ZSU. The student must have passed both GCAP S2 exam and the ZSU S2 facility exam at this point. The TA will review and approve the request. In the absence of the TA, the Air Traffic Manager (ATM) may respond to the request. Once approved, the solo validation is valid for a period of 7 to 30 days. During this period, the student shall make the best endeavor to practice their skills from this course thus far while following all GCAP Solo Endorsement requirements and VATCAR solo endorsement protocols. The student shall schedule the practical exam with a certified instructor (I1/I3) at ZSU other than the assigned trainer of the S2 training near the end of the solo endorsement period, although the student may choose to do complete the practical exam prior to the end of the solo endorsement period. The 30-day solo endorsement period may only be extended under exceptional circumstances by the TA (or the ATM in the absence of the TA) and may not exceed 90 days without the approval of the Region Vice President of VATSIM.
Over-the-Shoulder (OTS) Practical Exam			A certified instructor (I1/I3) of ZSU will conduct the practical exam with the student under an online session or a simulated lab session using Sweatbox or ATCTrainer. The practical exam will be evaluated using VATCAR score sheet and VATCAR practical exam criteria. Following the GCAP, the instructor shall inform the student about which of the specific criteria are deemed to be deficient and inform the Training Administrator of ZSU to schedule another practical exam. After a passed exam, the instructor shall submit the score sheet to the VATCAR Academy and Director of Training at VATCAR (VC3) for rating upgrade.

Text, Materials, Required Reading and References

Required Reading

San Juan CERAP Tower Cab Training Manual (ZSU-TRG-901) **(TCTM)**

San Juan CERAP Phraseology Manual (ZSU-TRG-900) **(PM)**

San Juan CERAP Phraseology Manual (ZSU-TRG-902) **(RM)**

ZSU-SOP-TJSJ - San Juan ATCT

ZSU-LOA-BQNT - Aguadilla LOA

ZSU-LOA-SIG - Isla Grande LOA

ZSU-LOA-STT - St. Thomas LOA

ZSU-LOA-STX - St. Croix LOA

ZSU-REF-903 - Facility Reference Sheet

FAA Order JO 7110.65AA - Air Traffic Control **(7110.65)**
(https://www.faa.gov/air_traffic/publications/atpubs/atc_html/)

CRC Tower Cab Mode Manual ([Link](#))

CRC STARS Manual ([Link](#))

Optional Reading

Code of Federal Regulations, Title 14, Part 91— General Operating and Flight Rules **(14 CFR 91 or Part 91)**
(<https://www.ecfr.gov/current/title-14/part-91>)

Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25B **(PHAK)**
(https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/phak)

Instrument Flying Handbook, FAA-H-8083-15B **(IFH)**
(https://www.faa.gov/sites/faa.gov/files/regulations_policies/handbooks_manuals/aviation/FAA-H-8083-15B.pdf)

Other Useful References

Pilot/Controller Glossary **(PCG)** (https://www.faa.gov/air_traffic/publications/atpubs/pcg_html/)

Aeronautical Information Manual **(AIM)**
(https://www.faa.gov/air_traffic/publications/atpubs/aim_html/)

Reading Assignments by Lesson & Module

Students are responsible for self-study of these materials (ideally prior to) taking the Lesson they are assigned.

* indicates the reading assignment is optional and for educational purposes.

** VFR TAC, VFR Sectional Chart, and Chart Supplements are digitally available for free on the FAA website. No purchase of hard copy is necessary.

Lesson	Module	TCTM	7110.65	PM	RM	PHAK*	Others
	201 – Introduction to Local Control	9-1	3-1,3-3,3-5				
	202 – Runway Selection	9-2	3-5				
	203 – Surface Operation	9-3 to 9.9; 9-12 to 9-14; 9-16	3-8, 3-9,	4			IFH: 1*,
	204 – Same Runway Separation	9-10	3-9-6, 3-10-3	4			
	205 – Wake Turbulence Separation	9-11	3-9-6; 5-5	4		5-9*, 14-26*	AIM 7-4*; PCG W-1*;
	206 – Airport Traffic Pattern	9-15		5		14-20	
	207 – Overhead Maneuvering		3-9-6; 3-10-12				
	208 – Introduction to Radar				1		
	209 – Radar Identification		5-3	6	1		
	210 – Transfer of Radar Identification		5-4		1		
1	211 – ZSU Procedures for Local Controllers						ZSU-SOP-TJSJ - San Juan ATCT ZSU-LOA-BQNT - Aguadilla LOA ZSU-LOA-SIG - Isla Grande LOA ZSU-LOA-STT - St. Thomas LOA ZSU-LOA-STX - St. Croix LOA ZSU-REF-903 - Facility Reference Sheet

7	212 – SJU Sweatbox 1						CRC Tower Cab Mode Manual CRC STARS Manual ZSU-REF-903 - Facility Reference Sheet
	213 – SJU Sweatbox 2						
	214 – Other Class C & Class D airports Sweatbox						
	215 – Military Operations for Local Controllers						
	216 – Local Pre- solo Evaluation						