

SOP - VATSIM SOUTHERN AFRICA S2 (TOWER) TRAINING PROCEDURE

VATSAF S2 (Tower) Training Procedure

Introduction

This document is the official; VATSIM Southern Africa training program for students wishing to apply for an S2 rating. Each mentor is expected to ensure that the guidelines in this document are adhered to ensure conformity, consistency and quality within the training process.

Initial training will place in the form of multiple simulated sessions. Simulated sessions will increase in complexity and when a mentor is satisfied with a student's performance, they student will be invited to join the live VATSIM environment for further training.

Definition of a Tower Controller

VATSIM (<https://www.vatsim.net>) | VATAME (<https://vatame.vatme.net/>) | VATSEA (<http://vat-sea.com/>) | VATWA (<http://www.vatwa.net>) | HQ System by Syam Haque (1161585) /view /user/1161585. A Tower Controller are expected to work in close collaboration with

positions below and above their positions.

A Tower Controller is expected to assume a “top down” when online. This means that if there isn’t a Ground Controller online, the Tower Controller will assume this facility.

Prerequisites

The prerequisites for starting the S2 Training course are as follows:

The student must be a member of VATSIM, VATSAF and a vACC within VATSAF

Must have accumulated 20 hours within a 6 month period as a S1 Controller.

The student must request S2 training by sending a request to atc@vatsaf.net.za (mailto:atc@vatsaf.net.za)

The student must have passed the VATSAF S2 Theory test.

Theory Training

The theoretical sessions will cover the following topics

- *Basic organisational awareness*
 - VATSIM and VATSAF.
 - Code of Conduct and Regulations (CoC and CoR).
 - Humility and empathy to other network users.
 - Visibility range settings
 - Generally accepted periods of online activity
 - Supervisors – their roles and responsibilities including under what circumstances should a Supervisor be summoned.
- *Supporting Applications*
 - ServInfo, VATSpy, and QuteScoop.
 - VRoute and ATC bookings.
- *Radar Client (Eurscope)*
 - Location and configuration of sector files
 - Configuration of Display settings
 - Control zone
 - Runways

- Taxiways
- Aprons and parking stands
- Aircraft Tag interrogation
 - Squawk codes; modes standby and Charlie
 - Altitudes; present (maintain, climbing and descending)
 - Cleared flight level
 - Text field
 - Additional information
- Basic Radar Client Functionality
 - Zooming and panning the display
 - Assigning squawk codes
 - Viewing flight plans
 - Setting cleared flight levels (Temp Alt)
 - Updating departure list
 - Using the scratch pad
 - Setting Voice ATIS
 - Use of Controller List
 - Obtaining METARs
- Communication
 - Private chat via Controllers and Pilots
 - Transmitting to text only pilots
 - Transmitting voice on the network
 - Monitoring other controllers frequencies
 - Using the .wallop command

Practical Training

Practical sessions will include but not be limited to the following topics;

- *Initial Preparation before logging on as an active Controller*
 - Logon as OBS and co-ordinate with adjacent controllers if required
 - Acquire the METAR for the current airfield
 - Determine active runway
 - Preparation of controller and airfield ATIS
- *Lgging on as an active Controller*
 - Valid facility name
 - Appropriate facility
 - Rating
 - Visibility range
 - Voice server and voice channel
 - VATSIM Certificate and password
 - Communication with fellow Controllers using the ATC (/) command in the scratch box
- *Lgging off as an active Controller*
 - Co-ordinate closing with adjacent Controllers
 - Indicate position is going to close
 - Using the .break command
 - Transmitting on the Controller co-ordination channel
 - Transfer pilots to alternate frequencies of Unicom

- Logging off the network
- A minimum of 30min is required to stay online at same position
- Station hopping not allowed prior to 30min being on current position
- *General ATC procedures for Tower Controllers*
 - Use of the phonetic alphabet
 - Weather information
 - For departing aircraft; include conditions not covered in the ATIS such as RVR, temperature and runway conditions.
- *Standard IFR Departures*
 - Review flight plan (even/odd flight levels) and assign SID
 - Transfer tag to next Controller if applicable or to Unicom
 - Issue departure instructions including wind information
 - Issue line-up and wait instructions where applicable
 - Issue taxi instructions
 - Approve push and start procedures
 - Deliver departure clearance to aircraft
 - Assign squawk code and set cleared flight level (Temp Alt)
- *Non Standard IFR Departures*
 - Coordinate non-standard departure with controller above
 - Coordinate heading and initial climb for further radar vectoring during departure
 - Direct to first waypoint on flight plan
- *Standard IFR Arrival*
 - Continue approach (if landing clearance cannot be given due to traffic cleared for landing)
 - Landing clearance and wind information
 - Taxi clearance to appropriate stand via taxiways
 - Go-around, (ATC or pilot initiated), coordinate with controller above
- *VFR departure leaving Control Zone*
 - Taxi to holding point before active runway
 - VFR clearance using control zone VFR exit points
- *VFR Arrival*
 - Clear into the circuit
 - Issue landing clearance at taxi to GA stands
- *VFR Traffic in the Circuit*
 - Clearance for circuits
 - Touch & Go; Stop & Go, low approach and go around
- *Separation*
 - Separation on the ground
 - Separate aircraft departing from the same runway
 - Separate departing and arriving traffic
 - Conditional clearances
 - Separate aircraft in the control zone (and TMA if applicable)
- *Coordination*
 - Effective coordination with other controllers when required
 - e.g. direct routing into other controllers sector
- *For piston engines*

- Taxi to run up area
- Rare on VATSIM, but in real life most small AC will want some minutes for engine run up, and some may want to simulate this on VATSIM as well
- Some airports have their own run up areas while other use a holding point where the aircraft is not in the way for other departures
- *Emergencies*
- Handling emergencies
- VATSIM CoC regarding emergencies

The Simulator Training Program

The first practical sessions will take place in the form of Sweatbox sessions. These sessions will increase in volume and complexity to ensure a steady learning path for the student.

All exercises will make use of overlaying or adjacent sectors and will focus on a major airport in the student's vACC.

Simulator exercises

101 IFR DEPARTURES

The exercise starts with a number of departing aircraft at the gates.

Subjects covered:

- Provide IFR clearances, using SID or vector departure.
- Start-up
- Pushback
- Taxi
- Take-off
- Runway change halfway through the exercise

102 IFR DEPARTURES AND ARRIVALS

- Both inbound and outbound IFR
- Multiple aircraft on final, (Continue approach, number two...)
- Separate aircraft taxiing in from aircraft taxiing out

103 VFR TRAFFIC

- VFR clearances (circuit, traffic leaving CTR)
- VFR in the circuit

- Clearing inbound VFR into the circuit.
- Phraseology in the local language (when possible)
- Helicopter traffic

104 FINAL SIMULATOR SESSION

- Exercise combining IFR arrivals, IFR departures and VFR traffic.

Online training program

Once the simulator sessions have been completed, a minimum of 2 on-line sessions are required with a mentor. If the mentor feels the student is capable of handling an online environment with ease and professionalism, the training is then considered complete. The student will then be issued with a solo validation for 30 days which will culminate in a S2 CPT.

Advanced/Optional

The following items might be included however, they are regarded as advanced and/or optional at this level.

Controller radar client software

- Configuration files: automatic voice ATIS for ES and text aliases file
- Modify text aliases (macro commands)

Communication

- Transmit on ATC channel to text pilots using "text aliases" (macro commands)
- Use intercom to coordinate with adjacent controllers

Controller Performance Test

- Tower Controller (S2) checkout: Tower position at regional airport
- Time frame: 60 to 90 minutes
- Supporting ATC: on approach or area/enroute sector above, no ground

Evaluation Criteria

- Log on as active Tower Controller

- Communicate with pilots and controllers online
- Respond to pilot calls and coordination requests from adjacent controllers
- Function as a Tower Controller at a regional airport during normal traffic conditions
- Handle at least one IFR departure and one IFR arrival satisfactorily
- Handle at least one VFR departure and one VFR arrival satisfactorily
- Control at least 2 aircraft on the frequency simultaneously
- In total, handle 8 movements during the examination.
- Coordinate runway in use and nonstandard departure with approach or area/enroute controller above
- Keep aircraft separated on taxiways and runway
- Separate aircraft taking off from and landing on the same runway (single runways only)
- Coordinate landing and take-off clearances on parallel active runways (dual runways)
- Separate aircraft in the control zone
- Use correct English phraseology and phraseology in local language if applicable

Feedback: atc@vatsaf.net.za (mailto:atc@vatsaf.net.za)