

vZLA Training Syllabus: Enroute Control 1

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1. PURPOSE

The purpose of the Training Syllabus is to provide ZLA training staff an outline of expectations for students, and the minimum criteria for satisfactory performance and certification.

2. DISTRIBUTION

Training Syllabi are for use by the ZLA training staff, and are open source to our students as a reference of expectations. For students, this syllabus is an outline of absolute minimum requirements, and is in no way a ticket to certification. Certification minima are ultimately determined by the mentor / instructor, and any shortcomings of the student, as determined by the training staff-member, are grounds for additional training and/or withholding certification.

3. PREREQUISITES

The prerequisites for EC1 training are outlined in the ZLA Training Summary. The student must hold a minimum VATSIM S3 and have completed the TC3 certification.

4. SESSION PREPARATION

1. This training should be conducted on Los Angeles Center: reference the ZLA Training Summary
2. Students should:
 - a. Arrive at session with CRC set up by student preference. Students are required to have the following displays open:
 - i. ERAM display (Position LA 55)
 - b. Students are recommended, but not required to have the following displays active:
 - i. STARS (L30, SCT, SBA, or a combination thereof)
 - ii. Tower Cab Mode (At student's discretion)
 - c. Review the following Documentation:
 - i. [Los Angeles ARTCC SOP](#)
 - ii. [Los Angeles ARTCC \(ZLA\) - Southern California TRACON \(SCT\) LOA](#)
 - iii. [Los Angeles ARTCC \(ZLA\) - Las Vegas TRACON \(L30\) LOA](#)
 - iv. *Each* Neighboring ARTCC LOA
 - v. Controllers are responsible for compliance with relevant SOPs / LOAs in syllabi for previously completed certifications

5. KNOWLEDGE REQUIREMENTS

1. Demonstrate knowledge and application of the following **separation minima**:
 - a. Enroute IFR lateral and vertical separation
 - i. Application of ERAM and fusion separation minima
 - ii. Understanding of ASR 5 second updates and enroute 12 second updates
 - b. Enroute VFR later and vertical separation
 - c. RVSM Airspace definition and application
 - d. Minimum IFR Altitudes
 - e. Vectoring

2. Airspace / Geography Familiarization
 - a. Identify lateral and vertical boundaries of position airspace
 - i. Neighboring En Route and Terminal facilities
 - ii. Underlying Terminal facilities
 - iii. Oceanic Airspace
 - iv. International Airspace
 - b. Identify class E and G airspaces where applicable
 - c. Demonstrate understanding of sectorization and division of duties
 - d. Demonstrates an understanding of terrain and obstacles
 - i. Usage of the MIA or MVA maps
3. Departures
 - a. Employ ERAM command methods for radar identification of relevant tracks
 - b. Ensure radar departures are appropriately separated
4. Enroute
 - a. Apply positive and pre-planned separation between enroute tracks and those transitioning to / from enroute infrastructure
 - b. Demonstrate proficiency with sequencing methods
 - i. CRR Usage
 - ii. Arcs
 - iii. Miles in Trail
 - iv. Minutes in Trail
 - v. Lateral vectoring
 - vi. Speed control
5. Arrivals
 - a. Apply positive and pre-planned separation between arrivals with departures, enroute aircraft, and other arrivals.
 - b. Demonstrate an understanding of "Descend Via" procedures
 - c. Demonstrate an understanding of Altitude crossing restrictions on non-profile descent STARs
 - d. Proactively plan and execute descent instructions for aircraft not on a STAR
6. Traffic Management Unit (TMU) Topics
 - a. Proficiency in achieving requested metering
 - b. Coordination with underlying facilities to ensure metering requirements are met
 - c. Coordination with adjacent facilities to request metering during periods of high traffic saturation
7. Facility Coordination
 - a. Efficient utilization of all "landline" tools including:
 - i. Discord
 - ii. Teamspeak
 - iii. "ATC Chat"
8. Automation
 - a. Proficiency with ERAM Datablock Management
 - b. Usage of the "VCI"
 - c. Efficient usage of the 4th scratchpad
 - i. Headings
 - ii. Speeds
 - iii. Free Text and the "clear weather symbol"
 - d. Timely automated handoffs to adjacent and underlying facilities

- e. Timely acquisition and acceptance of automated handoffs from adjacent and underlying facilities
 - f. Demonstrates knowledge of transfer of radar identification
 - g. Timely usage of the "Contact Me" feature for aircraft entering the airspace from offline
 - h. Proficiency with various core ERAM commands, including but not limited to;
 - i. QU, QB, QF, QX, LF (CRR), LB, LA, //, AM RTE, VP
 - i. Proficiency in usage of ERAM informational displays
 - i. Weather Request
 - ii. Altimeter Settings
 - iii. Toolbars
9. Scan and Technique
- a. Demonstrates proficiency in scanning all corners of the airspace
 - b. Demonstrates proficiency in working "top down"
 - c. Demonstrates an understanding of when to seek workload relief
 - d. Demonstrates the ability to progressively "load shed" during high traffic volume
 - e. Demonstrates the ability to continue to provide lower level services
 - f. Demonstrates the ability to prioritize services