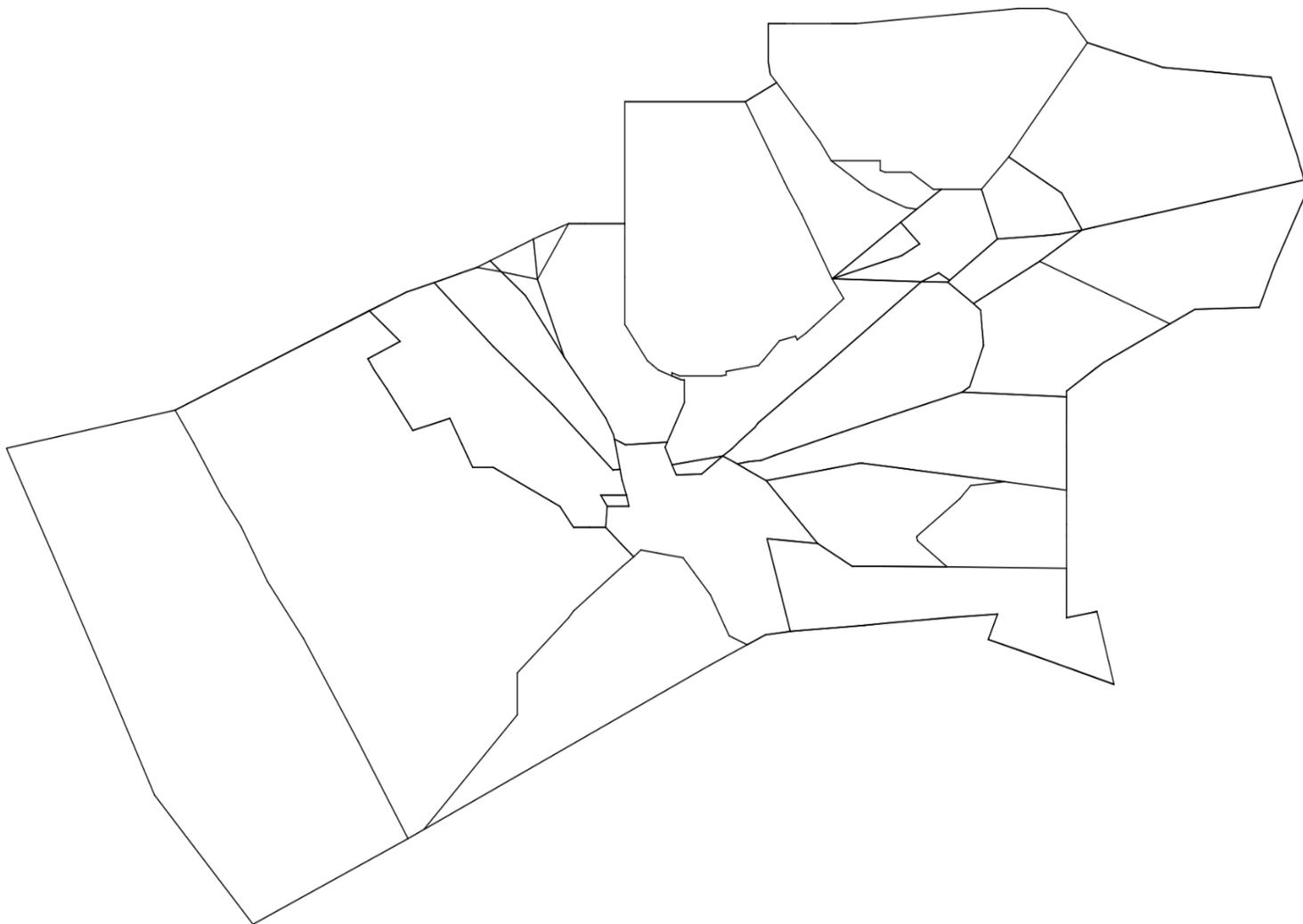


# VATSIM LOS ANGELES ARTCC STANDARD OPERATING PROCEDURES

June 2024



## **VATSIM LOS ANGELES ARTCC STANDARD OPERATING PROCEDURES**

### **FOREWORD**

This document establishes facility Standard Operating Procedures for Los Angeles Center. All controllers shall adhere to and use this SOP as a reference and overview of the combined Center operation, and thus is simplified for working the entire airspace combined. Area specific SOPs shall be adhered to while working those areas. All controllers shall adhere to these policies and use their best judgment when encountering situations not covered by this SOP.

This document is to be used for simulation purposes only; it is not authorized for or intended for real world use.

## TABLE OF CONTENTS

<b>LIST OF CHANGES.....</b>	<b>4</b>
<b>CHAPTER 1. GENERAL.....</b>	<b>6</b>
SECTION 1. COMBINED OPERATIONS.....	6
1-1-1. AREA CONSOLIDATION.....	6
1-1-2. MAP OF ZLA AREAS.....	6
1-1-3. AIRSPACE.....	7
SECTION 2. AREA AND SECTOR CONSOLIDATION.....	7
1-2-1. STANDARD SPLITS AND CONFIGURATIONS.....	8
1-2-2. TWO WAY SPLITS.....	8
1-2-3. THREE WAY SPLITS.....	9
1-2-4. FOUR WAY SPLITS.....	10
1-2-5. FIVE WAY SPLITS.....	10
1-2-6. RANDOM AND AD HOC SPLITS.....	10
<b>CHAPTER 2. CONTROLLER COORDINATION.....</b>	<b>11</b>
SECTION 1. DATA BLOCKS.....	11
2-1-1. ERAM DATA BLOCK COORDINATION.....	11
SECTION 2. INTER/INTRA-AREA COORDINATION.....	11
2-2-1. AREA A.....	11
2-2-2. AREA B.....	11
2-2-3. AREA C.....	11
2-2-4. AREA D.....	11
2-2-5. AREA E.....	11
2-2-6. AREA F.....	11
2-2-7. SECTOR FREQUENCY TABLE.....	11
SECTION 3. TRACON HANDOFFS AND COORDINATION.....	12
2-3-1. BAKERSFIELD TRACON (BFL).....	12
2-3-2. JOSHUA CONTROL FACILITY (JCF).....	12
2-3-3. LAS VEGAS TRACON (L30).....	12
2-3-4. POINT MUGU RAPCON (NTD).....	12
2-3-5. SANTA BARBARA TRACON (SBA).....	12
2-3-6. SOCAL TRACON (SCT).....	13
2-3-7. YUMA RAPCON (NYL).....	13
<b>CHAPTER 3. TMU.....</b>	<b>14</b>
SECTION 1. TMU POSITION INFORMATION.....	14
3-1-1. FREQUENCY INFORMATION.....	14
3-1-2. UNIQUE SECTOR EQUIPMENT CONFIGURATION.....	14
SECTION 2. TRAFFIC MANAGEMENT INITIATIVES.....	14
3-2-1. GENERAL.....	14
3-2-2. TMIs.....	14



## CHAPTER 1. GENERAL

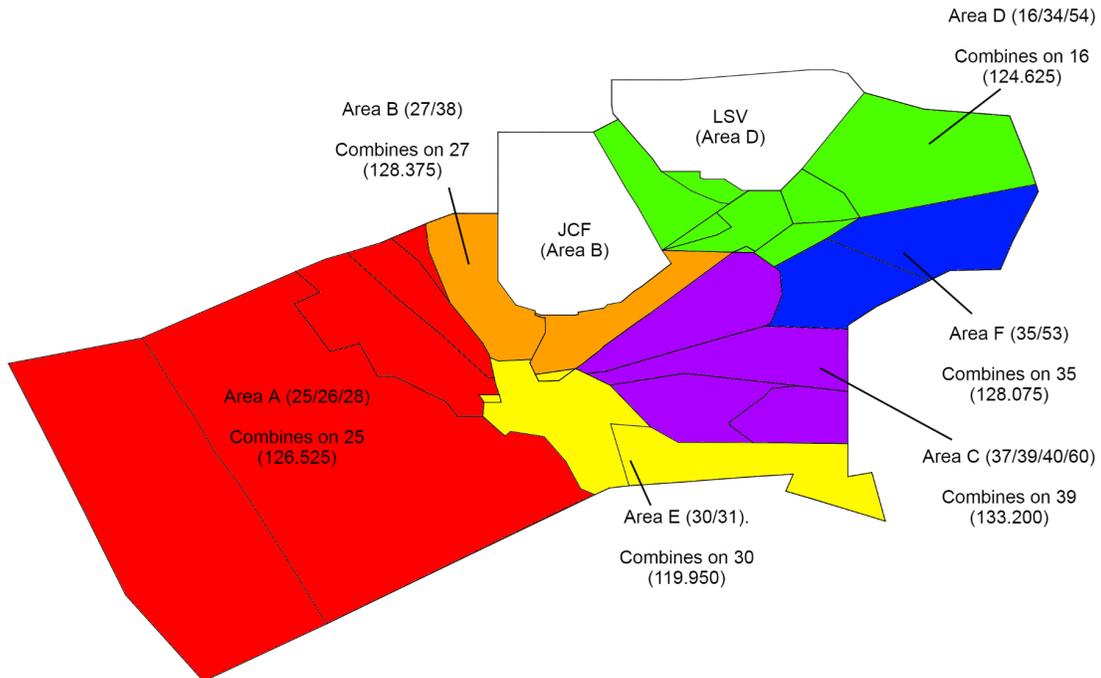
### SECTION 1. COMBINED OPERATIONS

#### 1-1-1. AREA CONSOLIDATION

When LA Center is combined, controllers shall connect as **Sector 25** using frequency **126.525**. When LA Center is split into two or more positions, sectors should first be split out by Area, then by individual sector. Sectors shall be recombined east to west, then areas east to west.

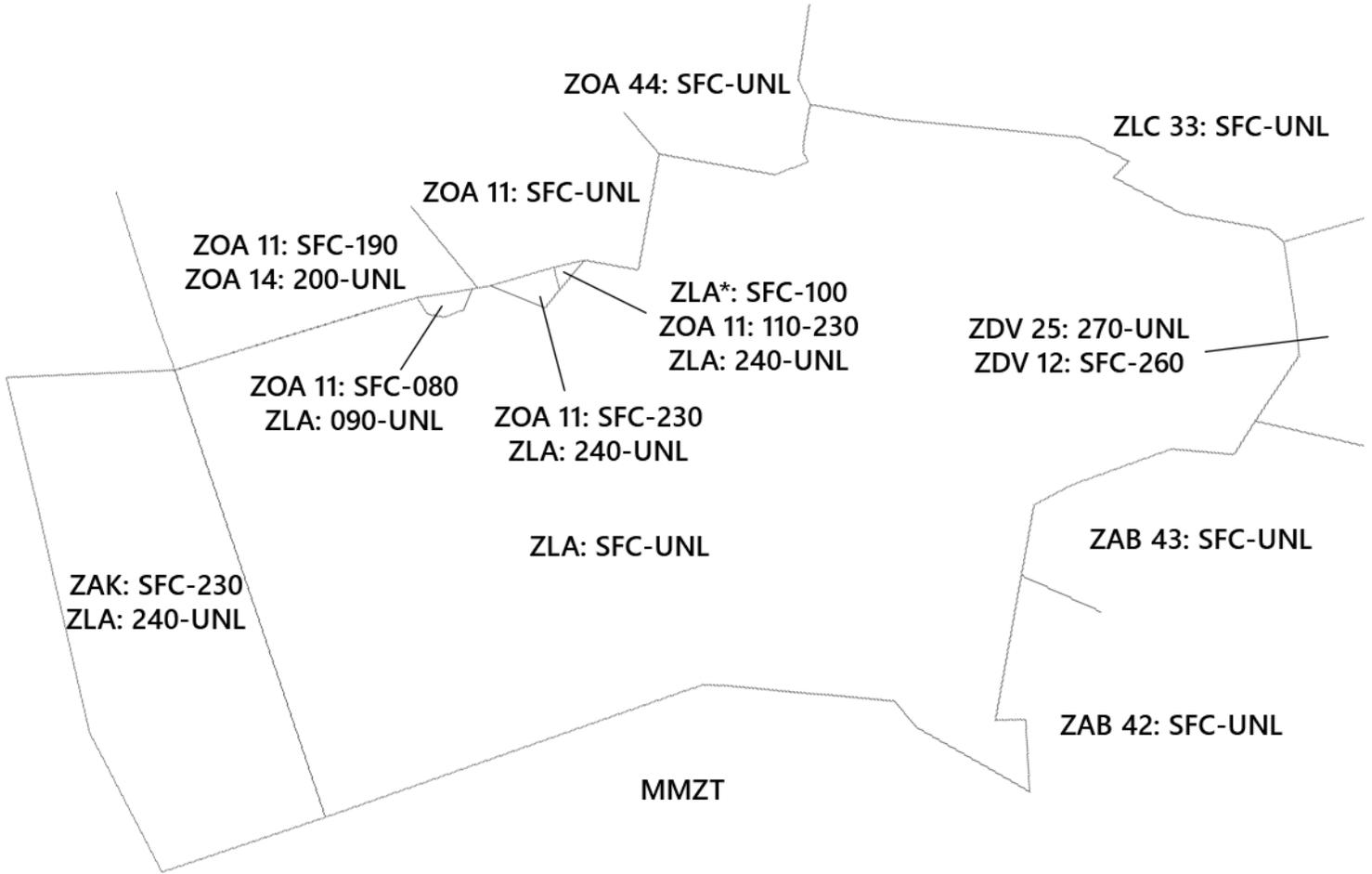
AREA	COMBINES TO	SECTORS
A	25	25, 26, 28
B	27	27, 38
C	39	37, 39, 40, 60
D	16	16, 34, 54
E	30	30, 31
F	35	35, 53
ALL	25	All Areas combine to Area A on Sector 25, 126.525

#### 1-1-2. MAP OF ZLA AREAS



### 1-1-3. AIRSPACE

When LA Center is staffed "top-down" (i.e. no controllers online below) it owns the airspace depicted in the following diagram:



\*NOTE: BFL owns the SFC-100 shelf in this area when it is staffed.

## SECTION 2. AREA AND SECTOR CONSOLIDATION

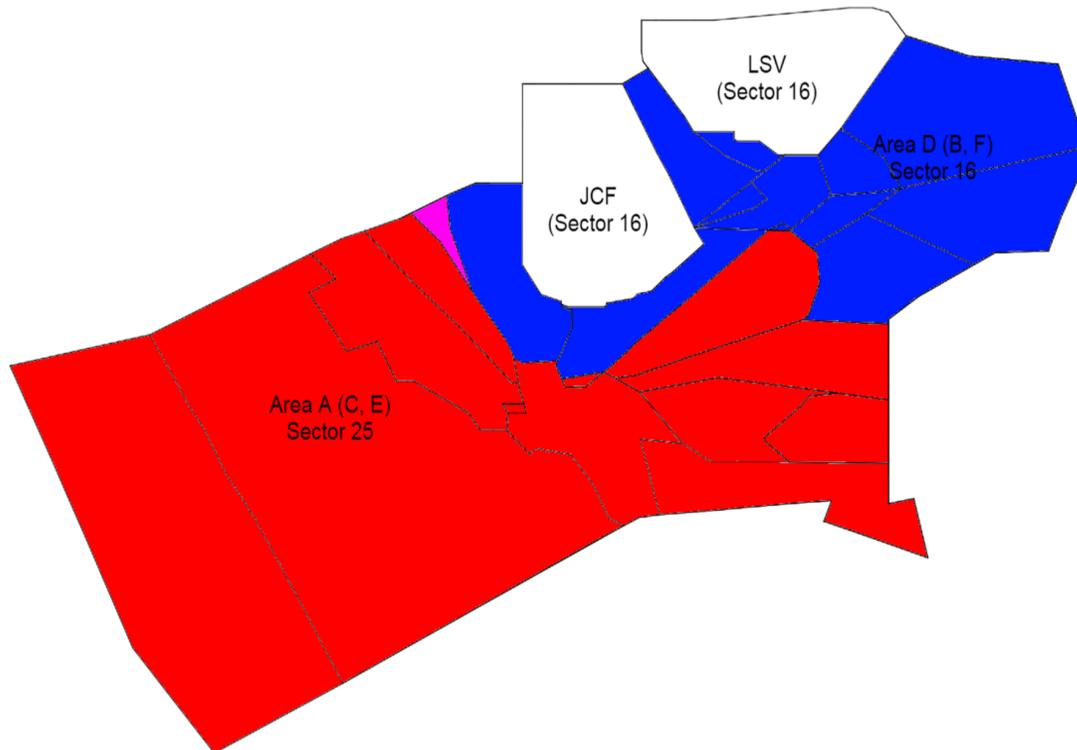
### 1-2-1. STANDARD SPLITS AND CONFIGURATIONS

The following airspace configurations shall be implemented and advertised to neighboring facilities unless not operationally advantageous. In the event a configuration is not operationally advantageous, controllers may adopt a nonstandard split and shall make their best effort to communicate the nonstandard split to neighboring facilities. This includes, but is not limited to ATC chat messages, controller remarks, and Discord announcements.

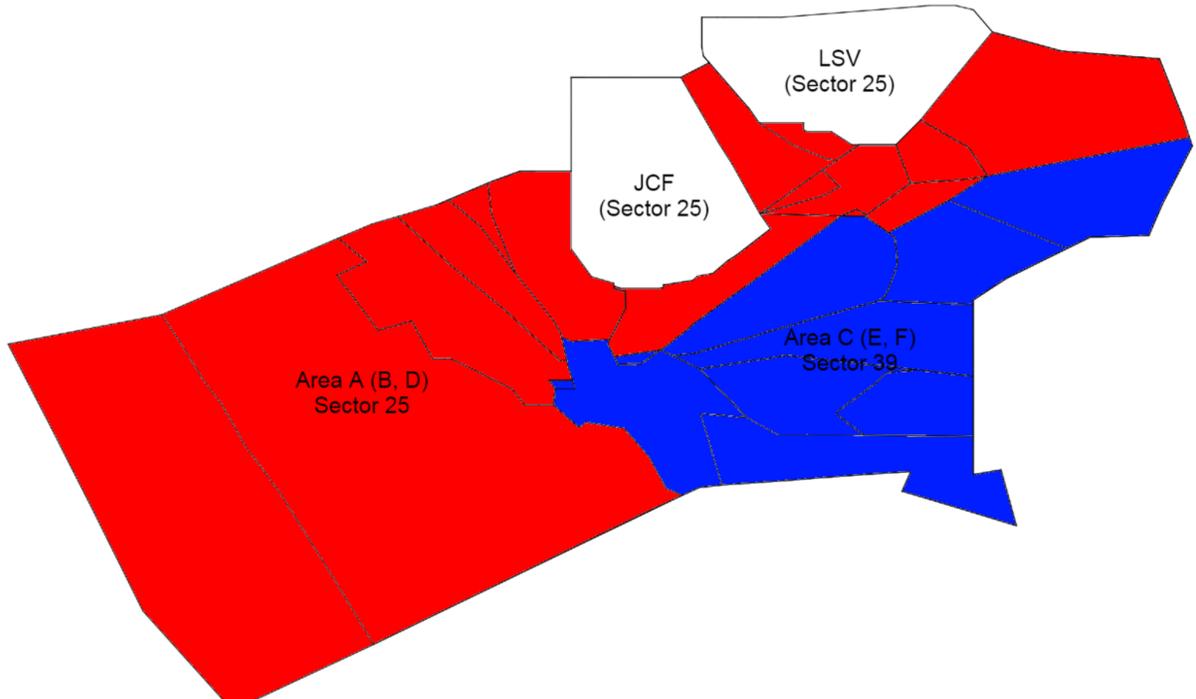
When center splits are in use, controllers shall, to the best of their ability, use the defined combined area's sector as their primary position. When consolidating positions after any positions are split off, controllers shall consolidate individual sectors into their respective areas in accordance with that area's SOP. Areas and standard splits shall be consolidated East to West to the extent possible, with all positions eventually consolidating on Area A.

### 1-2-2. TWO WAY SPLITS

Desert Split

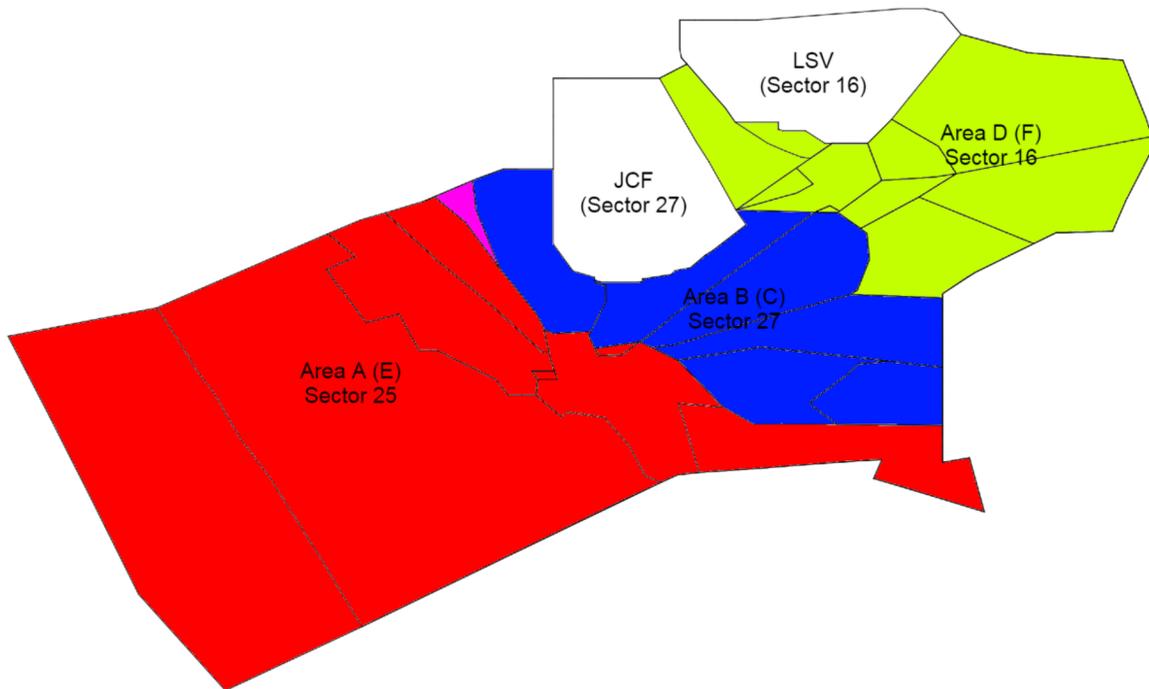


### Canyon Split

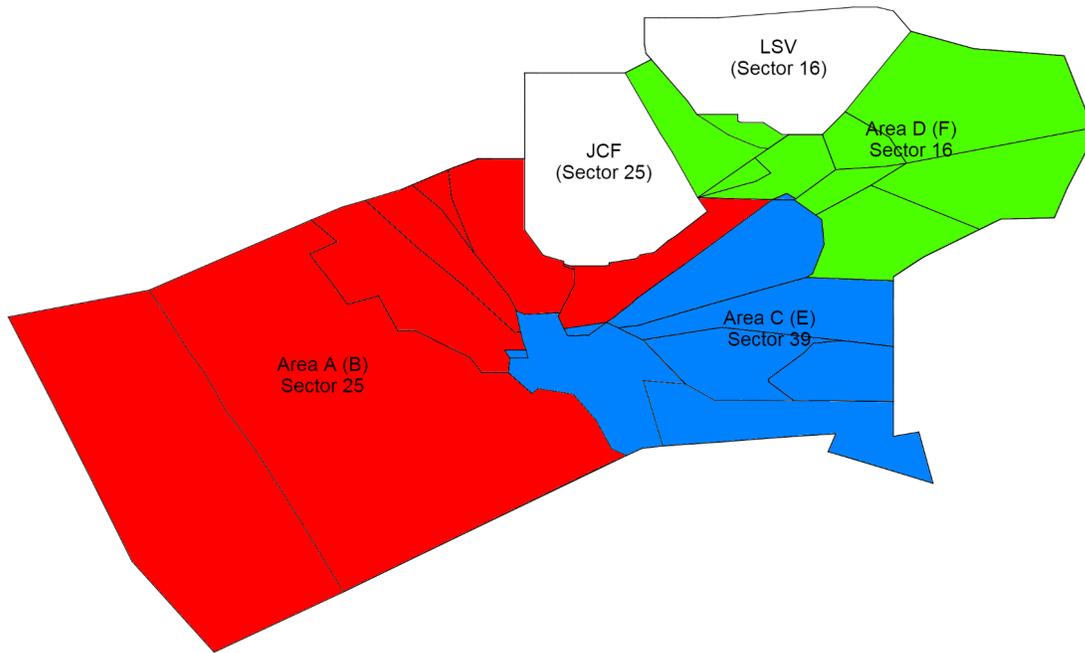


### 1-2-3. THREE WAY SPLITS

#### J65 Split



## Gambler Split



### 1-2-4. FOUR WAY SPLITS

[Reserved]

### 1-2-5. FIVE WAY SPLITS

[Reserved]

### 1-2-6. RANDOM AND AD HOC SPLITS

At EC/CIC discretion for rostering, ACE utilization, and unique traffic scenarios.

## CHAPTER 2. CONTROLLER COORDINATION

### SECTION 1. DATA BLOCKS

#### 2-1-1. ERAM DATA BLOCK COORDINATION

See: [Coordination and Scratch Pad Information SOP - Section 2](#)

### SECTION 2. INTER/INTRA-AREA COORDINATION

#### 2-2-1. AREA A

See: [Area A SOP](#)

#### 2-2-3. AREA C

See: [Area C SOP](#)

#### 2-2-5. AREA E

See: [Area E SOP](#)

#### 2-2-2. AREA B

See: [Area B SOP](#)

#### 2-2-4. AREA D

See: [Area D SOP](#)

#### 2-2-6. AREA F

See: [Area F SOP](#)

#### 2-2-7. SECTOR FREQUENCY TABLE

AREA	SECTOR	FREQUENCY
A	<b>25</b>	<b>126.525</b>
	26	135.300
	28	132.150
B	<b>27</b>	<b>128.375</b>
	38	125.725
C	37	133.550
	<b>39</b>	<b>133.200</b>
	40	127.525
	60	134.475
D	<b>16</b>	<b>124.625</b>
	34	132.625
	54	135.250
E	<b>30</b>	<b>119.950</b>
	31	126.775
F	<b>35</b>	<b>128.075</b>
	53	118.025

### SECTION 3. TRACON HANDOFFS AND COORDINATION

This section contains all crossing and handoff information for underlying TRACONS within ZLA airspace. Some TRACONS have their own Letters of Agreement which are linked below. Those without a specific LOA are detailed in the following sections and shall be treated as an LOA when that TRACON is online. For example, when working any ZLA sector overlying both SCT and JCF, refer to the SCT LOA if only SCT is online, and refer to the JCF section if JCF is online.

#### 2-3-1. BAKERSFIELD TRACON (BFL)

*Arrivals:*

- a. Aircraft on the FASTO Arrival shall be descended to 13,000' on the arrival and handed off to the TRACON.

*Departures:*

- a. Aircraft will be received from BFL climbing to 13,000'

#### 2-3-2. JOSHUA CONTROL FACILITY (JCF)

*Arrivals:*

- a. BOGET and JANNY arrivals shall be handed off to JCF descending via the arrival.
- b. KIMMO arrivals shall be instructed to cross BOGET at 8,000' and handed off to JCF.
- c. LYNXX arrivals shall be instructed to cross WOOLI/KOPLA at 14,000' and handed off to JCF.

#### 2-3-3. LAS VEGAS TRACON (L30)

See: [L30 - ZLA Letter of Agreement](#)

#### 2-3-4. POINT MUGU RAPCON (NTD)

*Arrivals:*

- a. Aircraft arriving NTD from LA Center shall be handed off to NTD at or descending to 8,000'.

*Departures:*

- a. Aircraft will be received at or climbing to 8,000'.

#### 2-3-5. SANTA BARBARA TRACON (SBA)

*Arrivals:*

- a. Aircraft shall be handed off to SBA at or descending to 9,000' except aircraft arriving on the eastern border shall be at or descending to 8,000'.

*Departures:*

- a. GAUCH SID departures will be instructed to climb via SID except maintain 8,000' and handed off to ZLA Sector 25.
- b. MISHN SID departures will be instructed to climb via SID and handed off to ZLA Sector 25.

- c. FLOUT, HABUT, KWANG, SANTA BARBARA SID shall be expected to be climbing to 8,000' and handed off to ZLA Sector 25.

**2-3-6. SOCAL TRACON (SCT)**

See: [SCT - ZLA Letter of Agreement](#)

**2-3-7. YUMA RAPCON (NYL)**

*Arrivals:*

- a. Arrivals from the west shall be routed via IPL V66 BZA crossing ARGUS at or below 14,000'.
- b. Arrivals from the north shall be routed via BLH V135 BZA crossing BLH at or below 14,000'.

*Departures:*

- a. Departures will be received climbing to FL230 or the requested cruise altitude, whichever is lower

## CHAPTER 3. TMU

### SECTION 1. TMU POSITION INFORMATION

#### 3-1-1. FREQUENCY INFORMATION

The ZLA TMU position is unique in that it can operate on any position with any frequency. By default it should not need to speak with aircraft directly, and thus is configured for a default frequency of 123.450 for network connection purposes. Controllers assigned to TMU shall monitor all appropriate coordination channels and provide up to date coordination information to open positions.

#### 3-1-2. UNIQUE SECTOR EQUIPMENT CONFIGURATION

- a. Altimeter Stations: ALL
- b. Codes: 1200, 1202, 1255, 1277, 4000
- c. Map: ZLATMU
  - i. HIGH SECTORS

### SECTION 2. TRAFFIC MANAGEMENT INITIATIVES

#### 3-2-1. GENERAL

TMU Personnel must:

- a. Initiate Traffic Management Initiatives (TMI) to balance air traffic demand with system capacity to ensure maximum efficiency in the utilization of the Virtual National Airspace System (vNAS) and International airspace.
- b. Maintain operational knowledge and situational awareness of the vNAS and Traffic Flow Management System (CaFLOW).
- c. Monitor compliance with TMIs and report non-compliance to the vATCSCC if required.
- d. Maintain proficiency on TMU positions, equipment and procedures.
- e. Oversee controller workload and actively manage sector saturation by changing splits, adjusting TMIs, and/or providing temporary relief.

#### 3-2-2. TMIs.

Initiate a TMI when:

- a. Demand is projected to exceed capacity (sector MAP or airport AAR)
- b. Meteorological conditions exist that disrupt the normal flow of air traffic.
- c. Any other event that may impact the normal flow of air traffic, e.g., military or SUA activities, special events, natural disasters, etc.
- d. TMIs may include any of the following:
  - (1) Miles-in-trail (MIT)
  - (2) Minutes-in-trail (MINIT)
  - (3) Reroutes
  - (4) Ground/Unified Delay Programs (GDP/UDP)
  - (5) Controlled Departure Times (CDT)
  - (6) Altitude Assignments-Capping or Tunneling
  - (7) Airborne Holding
  - (8) Time Based Metering/Adjacent Center Metering (TBM/ACM)
  - (9) Ground Stops (GS)

**3-2-3. TMI COORDINATION**

Coordinate TMIs in an appropriate, and timely manner. Most coordination is accomplished via the ZLA Discord, Western Seaboard Discord, VATUSA West Coast TeamSpeak, and vATCSCC to include the DCC Dashboard. This may include the following personnel:

- a. Working controllers
- b. Neighboring Event Coordinators or TMU personnel
- c. VATUSA TMU personnel
- d. Adjacent or underlying ATC Facilities Personnel
- e. The Virtual Air Traffic Control System Command Center (vATCSCC)

## APPENDIX A. ERAM FILTER GROUPS GUIDE

### A-1. MAP FILTER BUTTONS

HIGH SECTORS	JET ROUTES	AIRWAYS	Q ROUTES	TRACON BNDRY	APCH AIRSPCE	APCH MVA	MIA	RUNWAY	ARPT DGRM
NGHBR ARCS	LAX ARCS	LAS ARCS	SUA	LAX SIDSTAR	LAS SIDSTAR	SAN SIDSTAR	COAST SIDSTAR	EMPIRE SIDSTAR	BURPLEX SIDSTAR

#### Top Row

- **HIGH SECTORS:** Enables the sector boundaries within ZLA and contains nav aids/fixes/geographics points of interest.
- **JET ROUTES:** Displays all of the “J” Airways within ZLA.
- **AIRWAYS:** Displays all of the “V” Airways within ZLA
- **Q ROUTES:** Displays all of the “Q” Airways (high altitude RNAV)
- **TRACON BNDRY:** Displays the borders of all underlying TRACON Airspace
- **APCH AIRSPACE:** Displays the borders and sectors of underlying TRACON Airspace
- **APCH MVA:** Displays the TRACON MVA maps
- **MIA:** Displays the Center Minimum IFR Altitude map
- **RUNWAY:** Depicts runways for all ZLA airports (does not show extended centerlines)
- **APT DGRM:** Displays a basic diagram of ZLA Airports for top down controlling (must have “top down mode” on, CTRL+T)

#### Bottom Row

- **NGHBR ARCS:** Displays 5nm arcs from neighboring merge points
- **LAX ARCS:** Displays 5nm arcs for LAX arrivals
- **LAS ARCS:** Displays 5nm arcs for LAS arrivals
- **SUA:** Displays Special Use Airspace
- **LAX SIDSTAR:** Displays SIDs and STARs from LAX
- **LAS SIDSTAR:** Displays SIDs and STARs from LAS
- **SAN SIDSTAR:** Displays SIDs and STARs from SAN
- **COAST SIDSTAR:** Displays SIDs and STARs from SCT Area 4 airports
- **EMPIRE SIDSTAR:** Displays SIDs and STARs from SCT Area 3 airports
- **BURPLEX SIDSTAR:** Displays SIDs and STARs from SCT Area 1 airports

## A-2. BRIGHTNESS CONTROL GROUPS

HI SEC 12	JET 12	QROUTE 12	AIRWAYS 30	RUNWAY 30	APCHMAP 30	APCHMVA 12	SPARE1 20	INTER 12	SID 12
STAR 12	ARPT 12	RNG ARC 12	SUA 12	MIA 12	MIA TXT 12	LO BDRY 12	NAVAID 12	SID LBL 12	STARLBL 12

### Top Row

- **HI SEC:** High sector boundaries
- **JET:** “J” airways
- **QROUTE:** “Q” routes
- **AIRWAYS:** “V” airways
- **RUNWAY:** Runway depictions
- **APCHMAP:** Approach sector map
- **APCHMVA:** Approach MVA map
- **SPARE1:** Spare button, not in use
- **INTER:** Intersections  
(waypoints/fixes)
- **SID:** SID lines

### Bottom Row

- **STAR:** STAR lines
- **APT:** Airport diagrams (top down only)
- **RNG ARC:** Range Arcs
- **SUA:** Special Use Airspace
- **MIA:** Minimum IFR Altitude map
- **MIA TXT:** MIA Map text brightness
- **LO BDRY:** TRACON Boundary brightness
- **NAVAID:** VOR/NDB/TACAN brightness
- **SID LBL:** SID waypoint labels
- **STAR LBL:** STAR waypoint labels