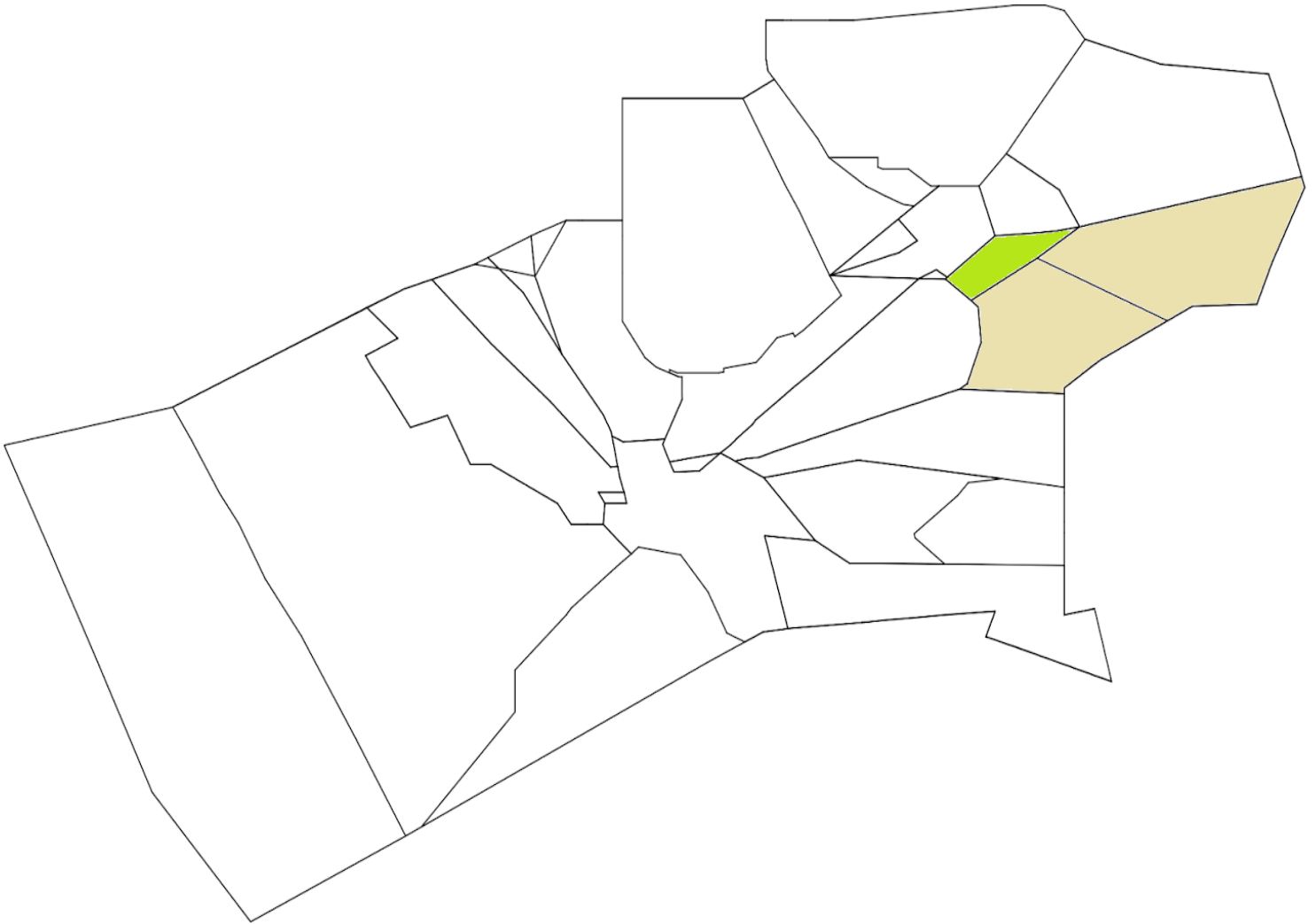


**VATSIM LOS ANGELES ARTCC
AREA F STANDARD OPERATING PROCEDURES**

June 2024



VATSIM LOS ANGELES ARTCC STANDARD OPERATING PROCEDURES

FOREWORD

This document establishes facility Standard Operating Procedures for Los Angeles Center Area F in the VATSIM Los Angeles ARTCC and is intended for use when this Area is being worked as a single Area or consolidated with adjacent areas. It is also intended for use when working any individual sector within Area F. 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.

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Change Notices

Version	Date	Explanation of Changes
1.00	23JUN24	Initial Version

CHAPTER 1. GENERAL
Section 1. Split Information

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

CHAPTER 2. AREA F SECTOR INFORMATION

Area F Section 1 - General Information

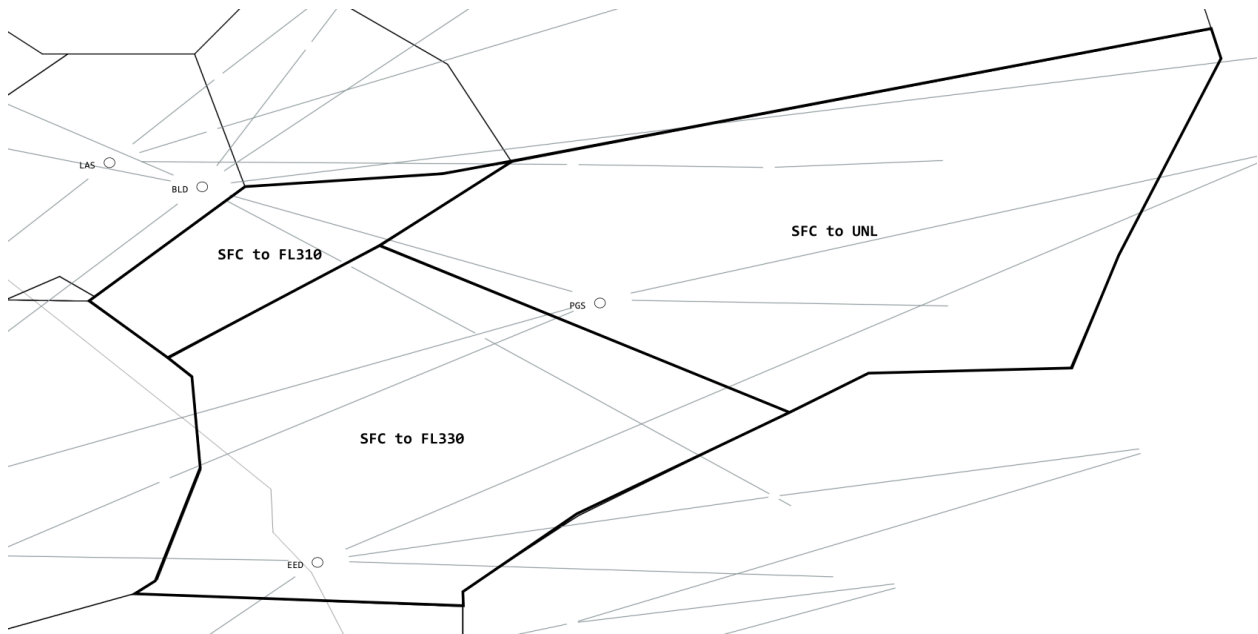
2-1-1. GENERAL

The information contained in this chapter is applicable to all sectors within Area F. Controllers are required to comply with all applicable Letters of Agreement (LOA), and shall additionally reference Section 3 of the Combined Center SOP for crossing and descent information to TRACONS for which no LOA exists.

2-1-2. SECTORS NORMALLY COMBINED

- a. Area F combined sector frequency usage:
 - i. Sector 53 combines on Sector 35
- b. Normal area configurations:
 - i. **Area A** - Sector 25 (25, 26, 28)
 - ii. **Area B** - Sector 38 (27, 38)
 - iii. **Area C** - Sector 39 (37, 39, 40, 60)
 - iv. **Area D** - Sector 16 (16, 34, 54)
 - v. **Area E** - Sector 30 (30, 31)
 - vi. **Area F** - Sector 35 (35, 53)
 - i. **Combined** - Sector 25 (Areas A, B, C, D, E, F)

**Area F Section 2
Sector 35**



Vertical Limits - Surface to unlimited except:

SHELF	ALTITUDES
34/35	Surface to FL310
35/53	Surface to FL330

2-2-1. NARRATIVE AND CONFLICT POINTS

Sector 35 is bounded by ZDV to the east, ZAB to the southeast as well as ZLA Sectors 54, 34, 53. The majority of the workload stems from the volume of jet traffic to the Los Angeles basin and the inbound and departure traffic to/from the Las Vegas and Phoenix areas. Sector 53 is an ultra-high sector above a portion of Sector 35 with airspace FL340 and above.

There are several potential conflicts to be aware of in this sector. Watch out for traffic on the SILOW, SNOBL, YOTES, JONHH, Phoenix Area Airport SIDs, J72 and northbound on J11 from ZAB that conflicts with ZDV's J64/128 and J236 traffic. The majority of the conflicts arise from Las Vegas arrivals and departures crossing J236, J72, J86 and J11 traffic.

Workload permitting, Sector 35 is responsible for providing Sector 37 and 39 with any in-trail spacing and rerouting deemed necessary by TMU.

2-2-2. FREQUENCY INFORMATION

Sector 35 operates on 128.075 and has radio transceivers in the vicinity of Peach Springs and Nelson.

2-2-3. UNIQUE SECTOR EQUIPMENT CONFIGURATION

- a. Altimeter Stations: LAS, GCN, IGM
- b. Codes: 1200, 1202, 1255, 1277, 4000
- c. Map: ZLAF or ZLAWEST/ZLAEAST:
 - i. HIGH SECTORS
 - ii. Minimum Range: 100

2-2-4. SECTOR SPECIFIC DIRECTIVES

The following list contains information specific to Sector 35 as it relates to its neighboring sectors. Information is grouped by Area.

- a. Area C
 - i. **General**
 1. Area F must issue the appropriate STAR for all arrivals into the SAN area and Los Angeles basin airports.
 2. Area C must not clear aircraft filed over EED any further than EED on a direct route.
 - ii. **Sector 37**
 1. Sector 35 has control from Sector 37 for: Turns
 2. Sector 37 must not clear aircraft filed over HAKMN on direct routes.
 3. Sector 35/53 must assign the following routes and altitudes for aircraft entering Sector 37:
 - a. KONT/KSNA/KLGB arrivals:
 - i. RNAV aircraft via MARUE.
 - ii. Non-RNAV aircraft via HEC.
 - iii. All KONT arrivals below all other traffic via MARUE/HEC and cross MARUE/enter Sector 37 AOB FL340.

- b. KBUR/KVNY Arrivals:
 - i. RNAV aircraft via:
 - 1. WELUM and cross WELUM AOB FL340.
 - 2. PURSE.
 - ii. Non-RNAV aircraft via HEC and enter Sector 37 AOB FL340.
 - c. KSMO/KCMA/KOXR/KNTD/KLAX Prop Arrivals:
 - i. RNAV aircraft via:
 - 1. WELUM and cross WELUM AOB FL340.
 - 2. PURSE.
 - ii. Non-RNAV aircraft via HEC and enter Sector 37 AOB FL340.
 - d. KLAX Jet Arrivals:
 - i. KLAX West Configuration:
 - 1. RNAV aircraft via DNERO/HAKMN.
 - 2. Non-RNAV aircraft via PGS BASET STAR.
 - e. KSAN Jet Arrivals:
 - i. RNAV aircraft via HAKMN Q73 and the appropriate STAR.
 - ii. Non-RNAV via GFS.
 - f. KCRQ Arrivals: Via HAKMN Q73 LVELL TRM ESCON.
 - g. KPSP/KTRM/KUDD Arrivals: Via HAKMN GFS/JOTNU.
 - h. Other Arrivals:
 - i. All aircraft landing KVCV, KRIV, or on the ZIGGY STAR must enter Sector 37 AOB FL340.
 - ii. All aircraft landing KBFL and KSBA via HEC.
 - i. Sector 37 has control from Sector 35/53 for:
 - i. Turns not to exceed 20 degrees.
 - ii. Speed adjustments.
 - j. Sector 37 must ensure aircraft landing within the Phoenix Terminal Area cross the Sector 35 boundary at or below FL330.
 - k. Sector 37 must ensure RNAV aircraft landing KPHX are routed via PRFUM direct WOTRO then the BRUSR STAR. Non-RNAV aircraft must be routed via PRFUM and the COYOT STAR.
 - l. Sector 35 has control on KPHX arrivals east or abeam of GFS from Sector 37 for:
 - i. Right turns.
 - ii. Control for descent to FL290.
 - m. Sectors 35/53 have control from Sector 37 for turns ten (10) NM from the 53/37 boundary.
- iii. **Sector 39**
 - 1. Sector 35/53 must assign the following routes and altitudes for aircraft entering Sector 39:
 - a. KLAX Jet Arrivals:
 - i. RNAV aircraft via FNNDA.

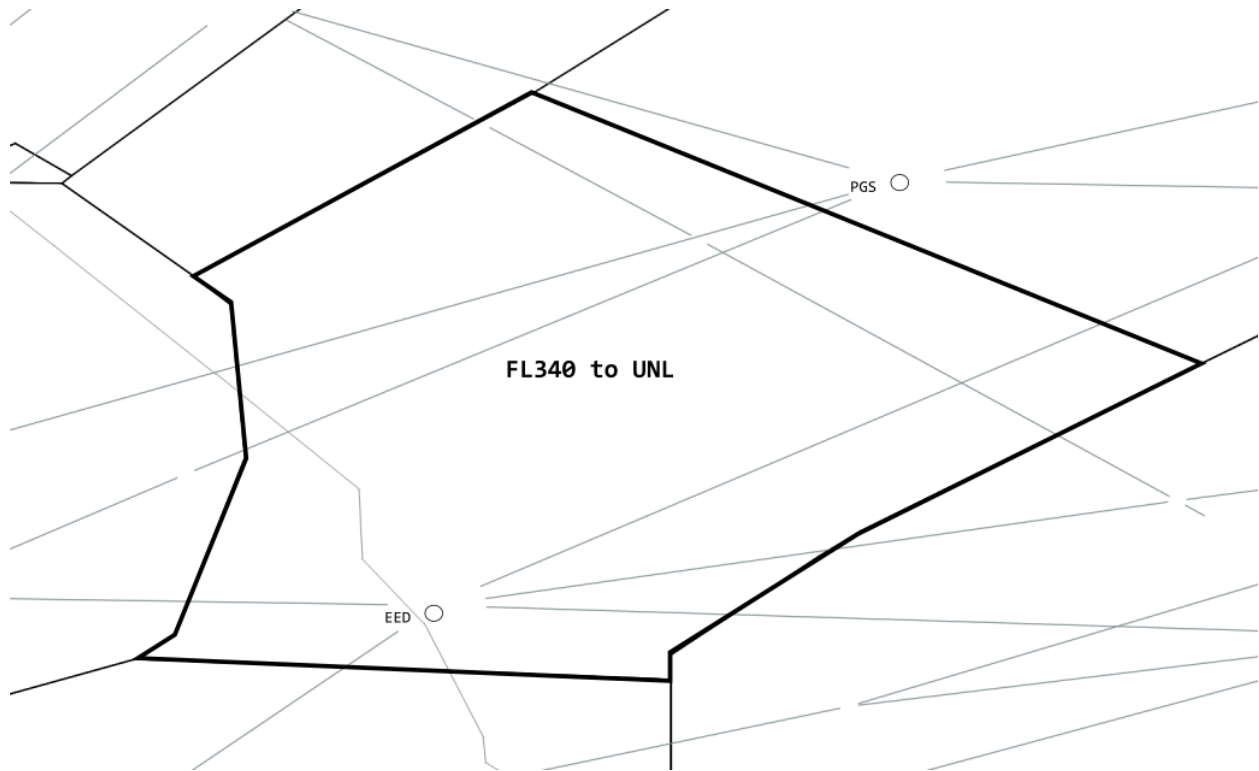
- ii. Non-RNAV via TNP.
 - iii. Unless otherwise coordinated, aircraft routed over EED/CGNEY or TNP/FNNDNA must be left on their route.
 - b. KSNA/KLGB Arrivals: Must be routed via EED.
 - c. KONT/KSAN Area Arrivals:
 - i. RNAV aircraft via TTRUE.
 - ii. Non-RNAV arrivals via EED.
 - iii. KONT/SETER STAR arrivals must be below all San Diego Area Arrivals.
 - d. KPSP/KTRM/KUDD/KCRQ/KRIV Arrivals:
 - 1. Via EED.
 - 2. Sector 39 has control from Sector 35 and Sector 53 on or south of J6 for:
 - i. Turns.
 - ii. Speed adjustments.
 - 3. Sector 39 must not clear aircraft filed over EED any further than EED on a direct route.
- b. Area D
 - i. **General**
 - 1. Area D must issue the appropriate STAR for all PHX Arrivals.
 - ii. **Sector 34**
 - 1. Sectors 35/53 may clear aircraft *departing* PHX Terminal Area entering Sector 34 no further direct BIKKR or BTY.
 - 2. Sector 34 must assign the following routes and altitudes for aircraft entering Sectors 35/53:
 - a. KPHX Arrivals:
 - i. Sector 35/53 has control for speed on contact.
 - ii. RNAV aircraft via PRFUM..WOTRO and exit Sector 34 AOB FL370.
 - iii. Non-RNAV aircraft via PRFUM and exit Sector 34 AOB FL370.
 - iv. KSDL, KCHD, KDVT, KFFZ, KIWA, and KP19 arrivals via J92.DRK, BLD..DRK or BLD..KIDDR and must exit Sector 34 AOB FL370.
 - v. KE25, KGEU, KGYR, KLUF and K18AZ arrivals via J92.DRK or BLD..DRK and must exit Sector 34 AOB FL370.
 - vi. KPRC and KFLG arrivals exit Sector 34 AOB FL330.
 - iii. **Sector 54**
 - 1. Sector 35 has control south of PGA (with the exception of PHX Terminal Area arrivals) from Sector 54 for turns no further right than direct HEC.
 - 2. Sector 35 must issue the following routes and altitudes for aircraft entering Sector 54:
 - a. All aircraft (except KSLC arrivals):
 - i. Via Q35 or J11.

- ii. Any direct routing entering ZLC over or east of EHK.
 - iii. Direct WINEN or BERYL.
 - b. KSLC Arrivals:
 - i. Via BCE.
- 3. Sector 54 must assign the following routes and altitudes for aircraft entering Sector 35:
 - a. KPHX Arrivals:
 - i. Via CORKR TENTS and enter Sector 35 AOB FL330.
 - ii. Enter Sector 35 AOB FL330.
 - b. KSDL/KCHD/KDVT/KFFZ/KIWA/KP19 Arrivals:
 - i. Via DRK, KIDDR, or FLG.
 - ii. Enter Sector 35 AOB FL330.
 - c. KE25/KLUF/KGEU/KGYR/K18AZ Arrivals:
 - i. Via DRK.
 - ii. Enter Sector 35 AOB FL330.
 - iii. KPRC/KSEZ/KFLG Arrivals: Enter Sector 35 AOB FL330.
- 4. Sector 35 has control on PHX Terminal Area for:
 - a. Left turns, no further than direct FLG
 - b. Speeds
- c. Area F
 - i. **General**
 - 1. Scenic deviations over the Grand Canyon are not authorized.
 - ii. **Sector 53**
 - 1. Has control from 35 to issue a pilot's discretion descent for aircraft routed via EED or TTRUE for SAN Area Arrivals, KPSP, KTRM, KUDD, KONT, and KCRQ en-route to Sector 39 when automated point out is accepted.

2-2-5. SECTOR HANDOFF/POINT OUT PROCEDURES

- a. Approval of an Automated Point Out from Sector 35 authorizes control for descent to Sector 53/35 for the following:
 - i. PHX Terminal Arrivals via WOTRO/KIDDR to FL290.
 - ii. SAN Area Arrivals via EED/TTRUE to FL300.
 - iii. KONT/KPSP/KTRM/KUDD/KCRQ/KRIV arrivals via EED to FL300.
- b. In an effort to enhance Sector 35/53's movement of cross traffic, Sector 37 must point out data blocks of all eastbound J6 and direct EED traffic to Sector 39. There is no verification of point out required unless aircraft will come within 2 1/2 miles from Sector 39's airspace.

**Area F Section 3
Sector 53**



Vertical Limits - FL340 and above

2-3-1. NARRATIVE AND CONFLICT POINTS

Sector 53 is bounded by ZAB to the southeast as well as ZLA Sectors 34, 35, 37 and 39. The majority of the workload stems from the volume of jet traffic to the Los Angeles basin and Phoenix Terminal Area arrivals southeast bound on J92.

There are several potential conflicts to be aware of in this sector. Watch out for the EED area, where J6 and J8 cross J236. The majority of the conflicts arise from Los Angeles basin arrivals on Q94, Q78, Q90, Q168, traffic on J236, SAN Area arrivals on Q86 and northwest departures from the PHX Terminal Area en-route from SISIE to DOVEE. These PHX Terminal Area departures are normally still climbing to requested altitudes and cross six (6) traffic flows to LAX, Los Angeles basin and SAN area.

Workload permitting, Sector 53 is responsible for providing Sector 37 and 39 with any in-trail spacing and rerouting deemed necessary by TMU.

2-3-2. FREQUENCY INFORMATION

Sector 53 operates on 118.025 and has radio transceivers in the vicinity of Nelson.

2-3-3. UNIQUE SECTOR EQUIPMENT CONFIGURATION

- a. Altimeter Stations: N/A
- b. Codes: 4000
- c. Map: ZLAF or ZLAWEST/ZLAEAST
 - i. HIGH SECTORS
 - ii. Minimum Range: 85

2-3-4. SECTOR SPECIFIC DIRECTIVES

The following list contains information specific to Sector 53 as it relates to its neighboring sectors. Information is grouped by Area.

N26MG (Callsign: "Engineer 1") must be cleared direct destination and is exempt from all traffic management programs. Any SOP deviation is authorized to expedite this exquisite man's flight.

- a. Area C
 - i. **General:**
 1. Area F must issue the appropriate STAR for all arrivals into the SAN Area and Los Angeles Basin airports.
 2. Area C must not clear aircraft filed over EED any further than EED on a direct route.
 - ii. **Sector 37**
 1. Sector 37 has control from Sector 53 for:
 - a. Turns not to exceed 20 degrees.
 - b. Speed adjustments.
 2. Sector 53 has control from Sector 37 for: Turns
 3. Sector 53 must assign the following routes and altitudes for aircraft entering Sector 37:
 - a. KONT/KSNA/KLGB arrivals:

- i. RNAV aircraft via MARUE.
 - ii. Non-RNAV aircraft via HEC.
 - iii. All KONT arrivals below all other traffic via MARUE/HEC and cross MARUE/enter Sector 37 AOB FL340.
- b. KBUR/KVNY Arrivals:
 - i. RNAV aircraft via:
 - 1. WELUM and cross WELUM AOB FL340.
 - 2. PURSE.
 - ii. Non-RNAV aircraft via HEC and enter Sector 37 AOB FL340.
- c. KSMO/KCMA/KOXR/KNTD/KLAX Prop Arrivals:
 - i. RNAV aircraft via:
 - 1. WELUM and cross WELUM AOB FL340.
 - 2. PURSE.
 - ii. Non-RNAV aircraft via HEC and enter Sector 37 AOB FL340.
- d. KLAX Jet Arrivals:
 - i. KLAX West Configuration:
 - 1. RNAV aircraft via DNERO/HAKMN.
 - 2. Non-RNAV aircraft via PGS BASET STAR.
- e. KSAN Jet Arrivals:
 - i. RNAV aircraft via HAKMN Q73 and the appropriate STAR.
 - ii. Non-RNAV via GFS.
- f. KCRQ Arrivals: Via HAKMN Q73 LVELL TRM ESCON.
- g. KPSP/KTRM/KUDD Arrivals: Via HAKMN GFS/JOTNU.
- h. Other Arrivals:
 - i. All aircraft landing KVCV, KRIV, or on the ZIGGY STAR must enter Sector 37 AOB FL340.
 - ii. All aircraft landing KBFL and KSBA via HEC.
- i. Sector 37 has control from Sector 35/53 for:
 - i. Turns not to exceed 20 degrees.
 - ii. Speed adjustments.
- j. Sector 37 must ensure aircraft landing within the Phoenix Terminal Area cross the Sector 35 boundary at or below FL330.
- k. Sector 37 must ensure RNAV aircraft landing KPHX are routed via PRFUM direct WOTRO then the BRUSR STAR. Non-RNAV aircraft must be routed via PRFUM and the COYOT STAR.
- l. Sector 35 has control on KPHX arrivals east or abeam of GFS from Sector 37 for:
 - i. Right turns.
 - ii. Control for descent to FL290.
- m. Sectors 53 has control from Sector 37 for turns ten (10) NM from the 53/37 boundary.

iii. **Sector 39**

1. Sector 53 must assign the following routes and altitudes for aircraft entering Sector 39:
 - a. KLAX Jet Arrivals:
 - i. RNAV aircraft via FNNDNA.
 - ii. Non-RNAV via TNP.
 - iii. Unless otherwise coordinated, aircraft routed over EED/CGNEY or TNP/FNNDNA must be left on their route.
 - b. KSNA/KLGB Arrivals: Must be routed via EED.
 - c. KONT/KSAN Area Arrivals:
 - i. RNAV aircraft via TTRUE.
 - ii. Non-RNAV arrivals via EED.
 - iii. KONT/SETER STAR arrivals must be below all San Diego Area Arrivals.
 - d. KPSP/KTRM/KUDD/KCRQ/KRIV Arrivals:
 1. Via EED.
 2. Sector 39 has control from Sector 35 and Sector 53 on or south of J6 for:
 - i. Turns.
 - ii. Speed adjustments.
 3. Sector 39 must not clear aircraft filed over EED any further than EED on a direct route.
- b. Area D
- i. Sector 53 may clear aircraft departing PHX Terminal Area entering Sector 34 no further direct BIKKR or BTY.
 - ii. Sector 34 must assign the following routes and altitudes for aircraft entering Sectors 53:
 1. KPHX Arrivals:
 - a. Sector 53 has control for speed on contact.
 - b. RNAV aircraft via PRFUM..WOTRO and exit Sector 34 AOB FL370.
 - c. Non-RNAV aircraft via PRFUM and exit Sector 34 AOB FL370.
 - d. KSDL, KCHD, KDVT, KFFZ, KIWA, and KP19 arrivals via J92.DRK, BLD..DRK or BLD..KIDDR and must exit Sector 34 AOB FL370.
 - e. KE25, KGEU, KGYR, KLUF and K18AZ arrivals via J92.DRK or BLD..DRK and must exit Sector 34 AOB FL370.
 - f. KPRC and KFLG arrivals exit Sector 34 AOB FL330.
- c. Area F
- i. Scenic deviations over the Grand Canyon are not authorized.
 - ii. Sector 53/35 has control from Sector 35 to issue a pilot's discretion descent for aircraft en-route to Sector 39 via EED or TTRUE for SAN Area Arrivals, KPSP/KTRM/KUDD/KONT/KCRQ/KRIV upon acceptance of automated point out from Sector 35.

2-3-5. SECTOR HANDOFF/POINT OUT/AIT PROCEDURES

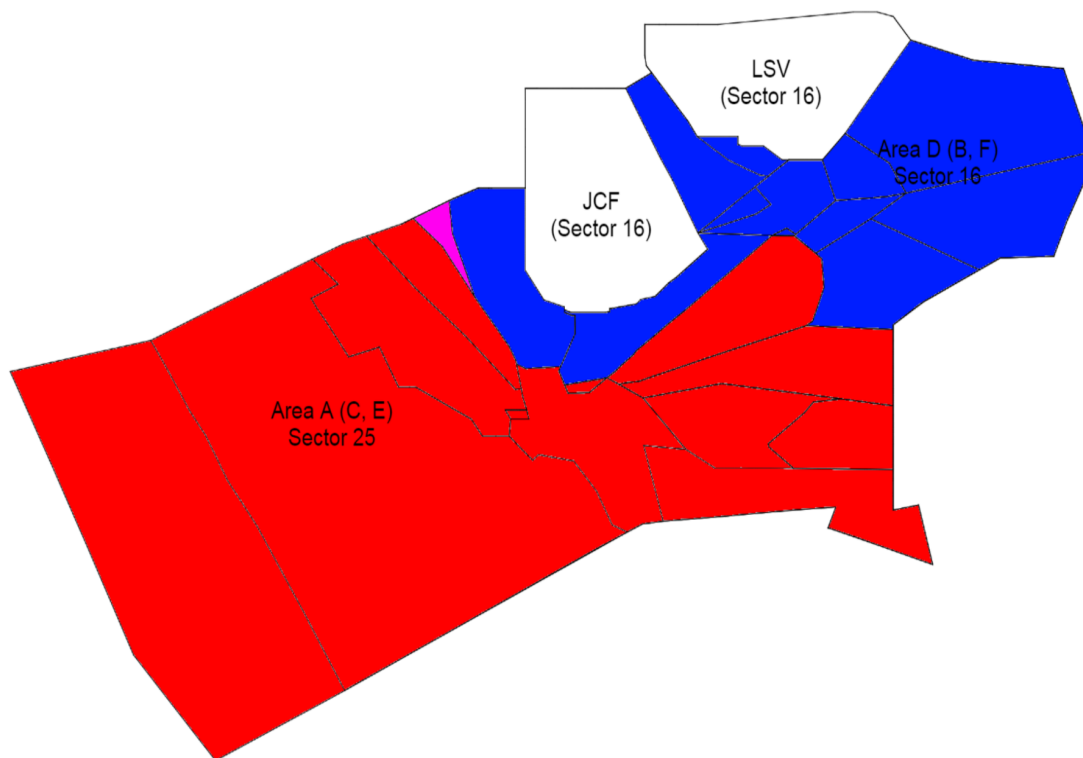
- a. Approval of an Automated Point Out from Sector 35 authorizes control for descent to Sector 53 for the following:
 - i. PHX Terminal Arrivals via WOTRO/KIDDR to FL290.
 - ii. SAN Area Arrivals via EED/TTRUE to FL300.
 - iii. KONT/KPSP/KTRM/KUDD/KCRQ/KRIV arrivals via EED to FL300.
- b. In an effort to enhance Sector 35/53's movement of cross traffic, Sector 37 must force data blocks of all eastbound J6 and direct EED traffic to Sector 39. There is no verification of point out required unless aircraft will come within 2 1/2 miles from Sector 39's airspace.

APPENDIX A. STANDARD SECTOR COMBINATIONS

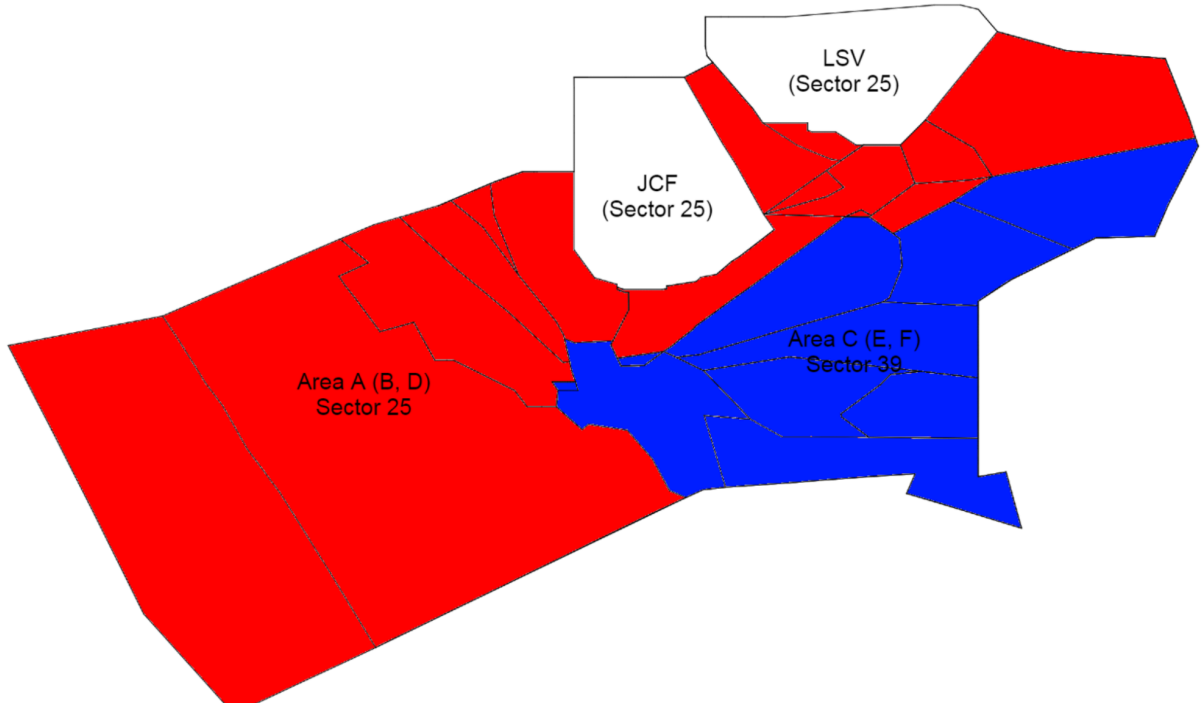
The following airspace configurations shall be implemented and advertised to neighboring facilities unless not operationally advantageous. In the event a configuration is not operationally advantageous, controllers may adopt a nonstandard split and shall make their best effort to communicate the nonstandard 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.

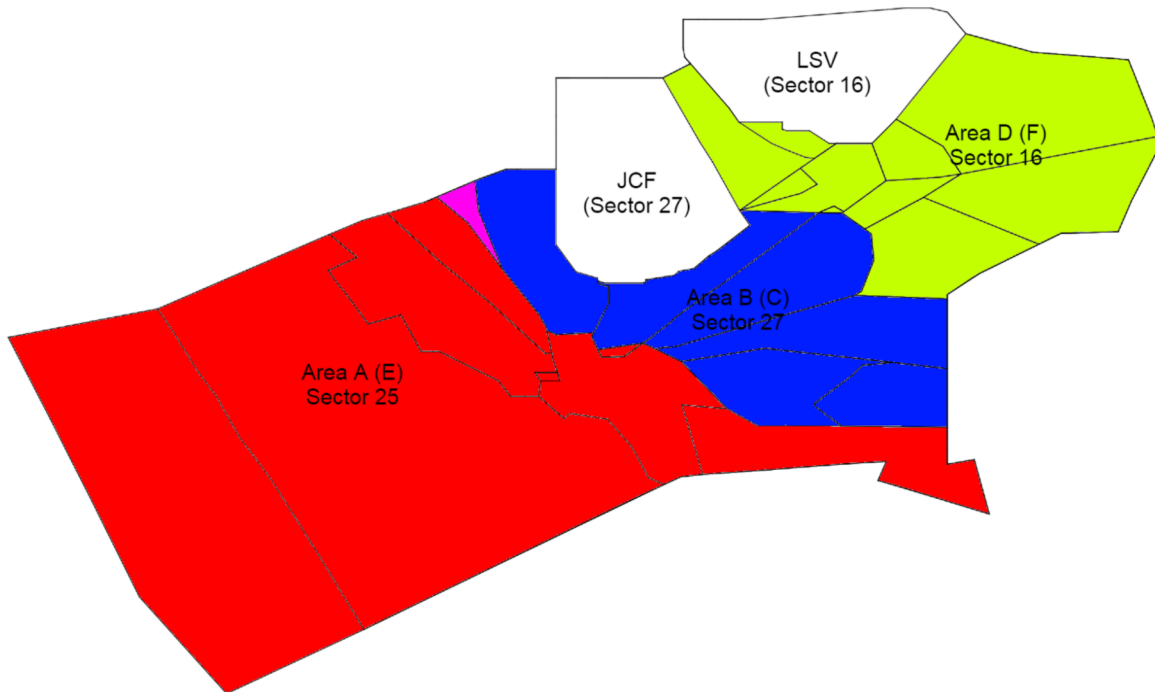
Desert Split



Canyon Split



J65 Split



Gambler Split

