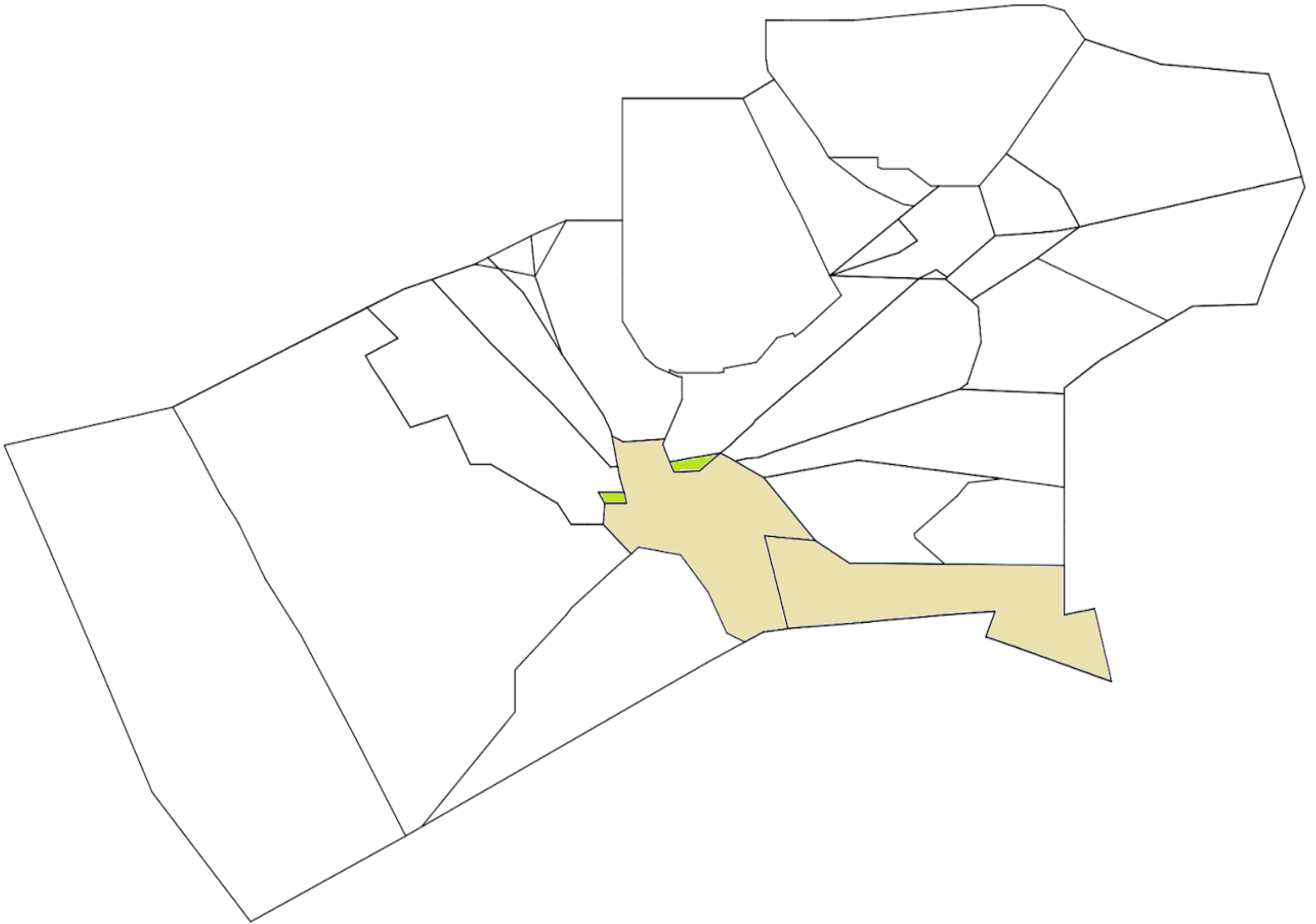**VATSIM LOS ANGELES ARTCC**
AREA E STANDARD OPERATING PROCEDURES

June 2024

VATSIM LOS ANGELES ARTCC STANDARD OPERATING PROCEDURES

FOREWORD

This document establishes facility Standard Operating Procedures for Los Angeles Center Area E 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 E. 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 E SECTOR INFORMATION
Area E Section 1 - General Information

2-1-1. GENERAL

The information contained in this chapter is applicable to all sectors within Area E. 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.

Area E is responsible for working the Socal TRACON (SCT), and Yuma RAPCON (NYL) top-down when each is respectively offline.

2-1-2. SECTORS NORMALLY COMBINED

    a. Area E combined sector frequency usage:
        i. Sector 31 combines on Sector 30
    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)
        vii. **Combined** - Sector 25 (Areas A, B, C, D, E, F)

Area E Section 2
Sector 30

DAG ○

FL300 to UNL

LAX ○

PDZ ○

SLI ○

FL290 to UNL

SFC to UNL

OCN ○

JLI ○

MZB ○

Vertical Limits - Surface to unlimited except:

SHELF	ALTITUDES
Over TANDY	FL290 and above
30/38	FL300 and above

2-2-1. NARRATIVE AND CONFLICT POINTS

Sector 30 works southbound, eastbound and northeast bound departures from several Los Angeles Basin airports, in addition to San Diego and Orange County departures filed towards LAX and the Ventura area. Complexity within the sector comes from the blending of these many traffic flows and the varying aircraft types that fly these routes. Additional complexity comes from the interaction of San Diego Area arrivals with aircraft climbing out on several of these departure routes.

The common conflicts are arrivals into the San Diego Complex with KLAX, KSNA and KSAN departures. TIJ is another conflict area, with non-radar separation required for traffic transitioning between Los Angeles and Mazatlán Centers. SBA area departures are in conflict with both KSNA departures and San Diego area arrivals.

Sector 30 is bordered by ZLA center high Sectors: 25, 26, 27, 28, 31, 37, 38, 39 and 40, and bordered internationally by Mazatlán.

Sector 30 assumes responsibility for SCT when it is offline.

2-2-2. FREQUENCY INFORMATION

Sector 30 operates on 119.950 and has radio transceivers in the vicinity of Pleasants Peak and Mt. Laguna.

2-2-3. UNIQUE SECTOR EQUIPMENT CONFIGURATION
   a. Altimeter Stations: TRM, CRQ, LAX, SAN
   b. Codes: 1200, 1202, 1255, 1277, 4000
   c. Map: ZLAE or ZLAWEST/ZLAEAST:
      i.   HIGH SECTORS
      ii. Minimum Range: 75

2-2-4. SECTOR SPECIFIC DIRECTIVES

The following list contains information specific to Sector 30 as it relates to its neighboring sectors. Information is grouped by Area.
   a. <u>Area A</u>
      i. **General**
         1. Aircraft filed into Sector 25 airspace must be cleared on/over the following routes/points (excluding KNTD, KOXR, and KCMA arrivals):
            a. Aircraft filed AOA FL240:
               i.   RNAV1 departures: on the SID or direct IKAYE.
               ii. Non-RNAV1 departures:
                  1. Via ..RZS or ..IKAYE
               iii. All overflights:
                  1. Via ..RZS or ..IKAYE
               iv. All aircraft landing KSBA:
                  1. WEEZL..KWANG.

    ii. **Sector 25**
- 1. Sector 25 has control from Sector 30 for:
  - a. Speed adjustments.
  - b. Turns to remain over or west of IKAYE.
  - c. Climb to requested altitude, or lower, as reflected in the flight plan at handoff.
- 2. Sector 30 has control on all aircraft proceeding southbound over SXC AOA FL240 from Sector 25 for turns to the east.

    iii. **Sector 25/26**
- 1. Aircraft landing KSAN, handed off from Sectors 25 or 26 to Sector 30, must be at least five (5) miles in trail, regardless of altitude.
- 2. Sector 30 has control for aircraft within a 35 NM radius of LAX landing KSAN, KSEE, KMYF, KNZY, KNKX, KSDM and MMTJ from Sectors 25 and 26 for:
  - a. Descent no lower than FL290.
  - b. Speed adjustments.
- 3. Aircraft landing KSAN and KNZY during KSAN East (RWY09 or RWY09/27) Configuration must cross LAX at FL250.

    iv. **Sector 28**
- 1. Aircraft landing KRIV must cross SXC at FL270.
- 2. Sector 28 must clear aircraft landing San Diego Area (KSAN, KNZY, KNKX, KMYF, KSEE, and KSDM) direct SXC and:
  - a. During KSAN West (normal) Configuration: Cross SXC at FL270.
  - b. During KSAN East (RWY09 or RWY09/27) Configuration: Cross SXC at FL250.
  - c. Sector 30 has control 20 NM west of SXC from Sector 28 for:
    - i. Speed adjustments.
    - ii. Descent.

b. <u>Area B</u>

    i. **Sector 27**
- 1. When KSAN is East (RWY09 or RWY09/27), all San Diego area departures must be routed:
  - a. SLI..EHF.
  - b. SLI..LHS.
  - c. Jets only:
    - i. RNAV1: SLI..OROSZ.
    - ii. Non-RNAV1: SLI..GMN.
- 2. Sector 27 must route aircraft landing KSAN in West Configuration:
  - a. RNAV1: Via COMIX STAR.
  - b. Non-RNAV: Via HUBRD STAR.
- 3. Sector 27 must route aircraft landing KSAN in East Configuration:
  - a. RNAV1: Via PLYYA STAR.
  - b. Non-RNAV1: Via SHAMU STAR.
  - c. Must cross KLAX at FL250 with KSAN and KNZY arrivals.

4. Sector 27 has control from Sector 30, north of LAX, for turns to remain over or east of OROSZ.

5. Sector 30 has control for KSAN Area arrivals from Sector 27 for:
   a. Turns up to 30 degrees left.
   b. Sector 30 is responsible for point outs to Sector 38.

ii. **Sector 38**

1. Sector 38 has control from Sector 30 for:
   a. Speeds
   b. Right turns on aircraft over or east of SLI
   c. ORCKA departures from KLAX

2. Aircraft handed off from Sector 30 to Sector 38 must be routed:
   a. Las Vegas Area Arrivals via:
      i. Non-RNAV1: POM..DAG.
      ii. RNAV1: SEBBY..YELAH..MISEN and the appropriate STAR.
   b. All other aircraft via:
      i. Non-RNAV1: SEBBY..LAS.
      ii. RNAV1: CHKNN..LAS.

c. Area C:

i. **Sector 40**

1. All departures must be established on the appropriate SID prior to entering Sector 40's airspace. *Exception*-Aircraft may be cleared direct GBN, EWM, or ELP, over or south of WIILD.

2. Sector 40 has control from Sector 30 for:
   a. Turns
   b. Climb to requested altitude, as reflected in the flight plan at handoff.

3. RNAV aircraft via the SCBBY/THRNE STAR must be cleared to descend via the arrival in accordance with the descent profile.

d. Area E

i. **Sector 31**

1. Aircraft from Sector 31 routed over SXC must be cleared direct SXC.

2. Non RNAV1 aircraft routed via JLI, IPL, ASUTA, or MXL will be cleared direct to the furthest of these fixes.

3. KLAX West configuration arrival must be cleared on the VISTA, OLAAA or SNSTT arrival by Sector 31. Arrivals must be cleared to maintain FL240 or descending via.
   a. Arrivals on the VISTA STAR must cross JLI AOB FL260 descending to FL240.

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

a. Acceptance of an automated point out by Sector 30 from Sector 40 constitutes approval to climb to filed requested altitude, or lower.

b. Acceptance of an automated point out by Sector 30 from Sector 25 constitutes approval to climb to filed altitude, or lower.

c. Automated Point Out Procedure:

    i. Acceptance of an automated point out by Sector 30 from Sector 38 constitutes approval to climb to filed requested altitude, or lower.

    ii. Acceptance of an automated point out by Sector 30 from Sector 21 on aircraft filed into Sector 38's airspace constitutes approval to climb to filed requested altitude, or lower.

    iii. Acceptance of an automated point out by Sector 30 from Sector 21 on aircraft filed into Sector 25's airspace constitutes approval to climb to filed requested altitude, or lower.

d. Sector 30 is responsible for point outs to TIJ Approach on aircraft crossing the international boundary transitioning from low to high altitude.

Area E Section 3
Sector 31

SFC to UNL

JLI ◯

IPL ◯   BZA ◯

Vertical Limits - Surface to unlimited

2-3-1. NARRATIVE AND CONFLICT POINTS

Sector 31's traffic mostly consists of San Diego Complex arrivals and departures along J2/18. Sector 31's boundary being adjacent to Mexico adds to the complexity of the sector due to non-radar procedures.

The main conflict points in Sector 31 are on J2/18 and the JLI area. Conflicts can arise in the vicinity of J2/18 between slow-climbing eastbound departures and westbound arrivals descending for the San Diego area. The conflicts over the JLI area are departures from the San Diego Complex and Los Angeles Area arrivals from Mazatlán Center.

The majority of Sector 31's traffic is made up of San Diego Area arrivals and departures, military traffic transitioning between MCAS Miramar, NAS El Centro, and MCAS Yuma, and the various restricted areas and MOAs/ATCAAs located in the surrounding airspace. In addition, Sector 31 also provides approach control services for Imperial County Airport and the other non-towered airports within the sector limits. Much of the complexity in this sector is derived from the different types and speeds of aircraft that enter the airspace and the high volume of Special Use Airspace (SUA) activity.

Sector 31 is bordered by ZLA center high Sectors 30, 40, and 60. It is bordered by Albuquerque Center (ZAB), Mazatlán Center, and Yuma Approach (NYL).

Sector 31 assumes responsibility for NYL top-down when it is offline.

2-3-2. FREQUENCY INFORMATION

Sector 31 operates on 126.775 and has radio transceivers in the vicinity of Julian and Yuma.

2-3-3. UNIQUE SECTOR EQUIPMENT CONFIGURATION
   a. Altimeter Stations: SAN, IPL
   b. Codes: 1200, 1202, 1255, 1277, 4000
   c. Map: ZLAE or ZLAWEST/ZLAEAST:
       i.   HIGH SECTORS
       ii. Minimum Range: 100

2-3-4. SECTORS SPECIFIC DIRECTIVES
   a. Area C
       i.   **Sector 40**
           1. San Diego Area Departures:
               a. Sector 31:
                   i.   Must not clear aircraft further direct than TRM/NSHEE. Exception-Aircraft entering the lateral confines of Sector 40's airspace AOA FL250 may be cleared direct MTBAL.
                   ii. Must not climb departures above FL270.
               b. Sector 40 has control from Sector 31 for:
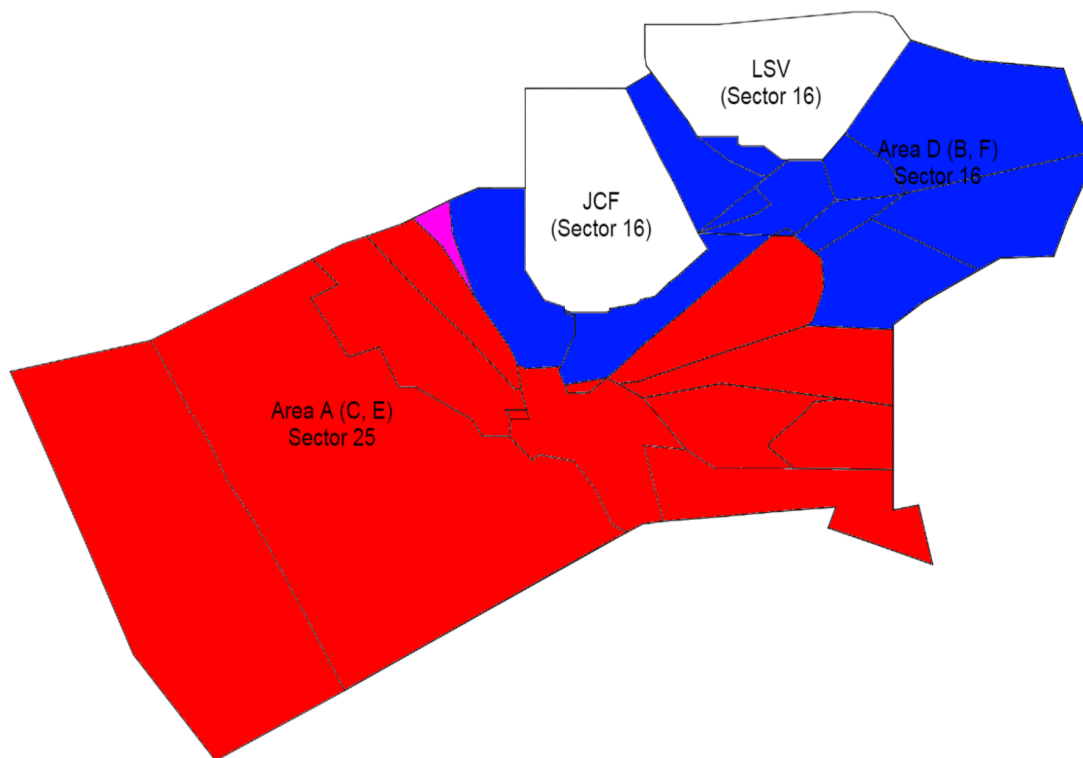   i.   Turns, not to exceed 20 degrees.

     ii. Climb to requested altitude as reflected in the flight plan at the time of handoff on San Diego Area departures.

   2. Aircraft requesting the high penetration to KRIV must be handed off to Sector 31 for descent.

   3. Sector 31 has control from Sector 40 for:

    a. Turns to the south 50 NM northeast of JLI.

    b. Speed adjustments.

    c. Issuance of pilot's discretion descent upon reaching FL240.

 b. <u>Area E</u>

  i. **Sector 30**

   1. Non-RNAV1 aircraft routed via JLI, IPL, ASUTA, or MXL will be cleared direct to the furthest of these fixes.

   2. Aircraft from Sector 31 routed over SXC must be cleared direct SXC.

   3. KLAX West configuration arrival must be cleared on the VISTA, OLAAA or SNSTT arrival by Sector 31. Arrivals must be cleared to maintain FL240 or descending via.

    a. Arrivals on the VISTA STAR must cross JLI AOB FL260 descending to FL240.
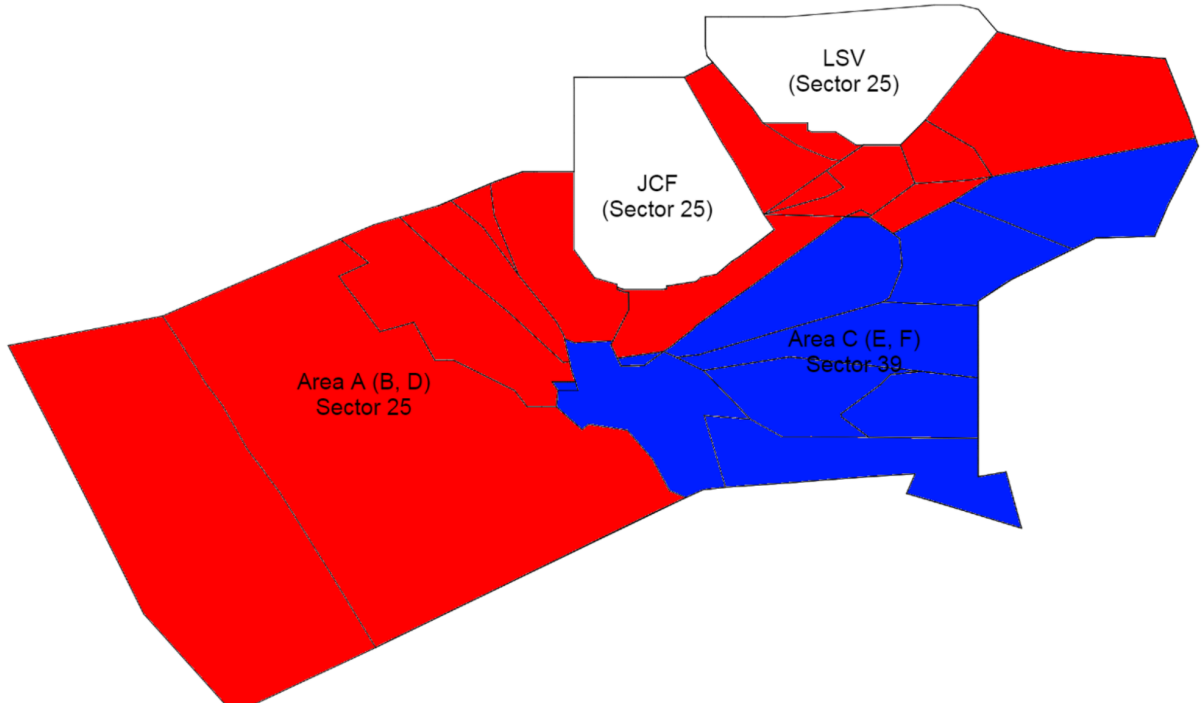
APPENDIX A. STANDARD SECTOR COMBINATIONS

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.
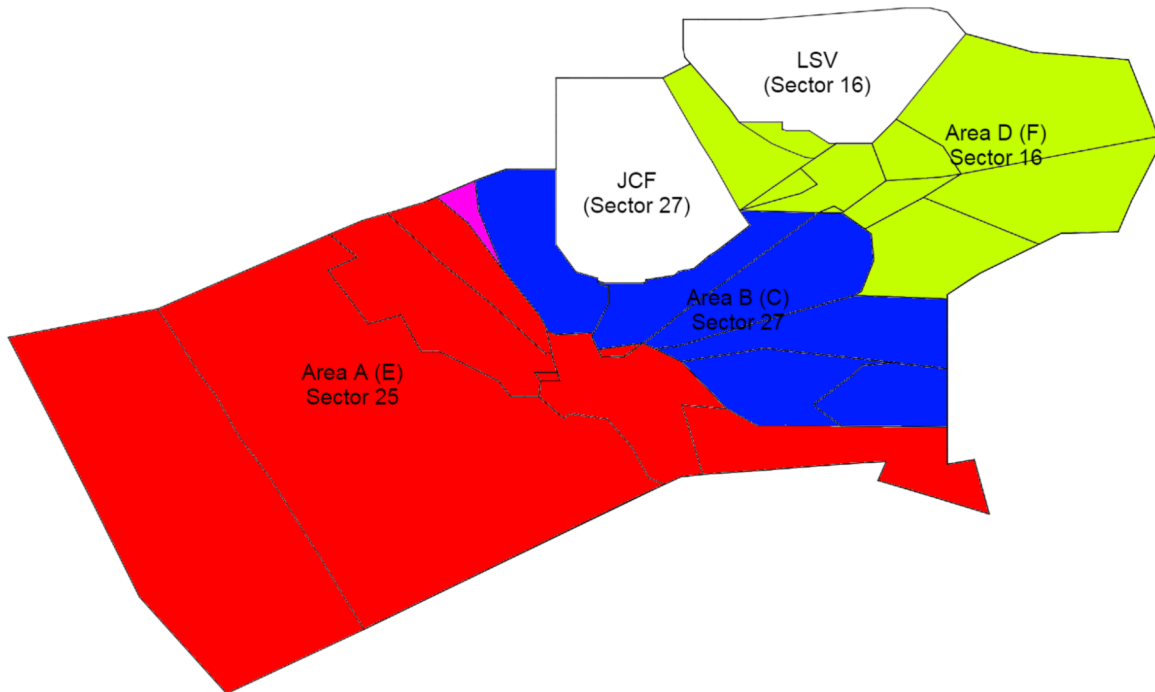
Desert Split

Canyon Split

J65 Split

Gambler Split

LSV
(Sector 16)

Area D (F)
Sector 16

JCF
(Sector 25)

Area C (E)
Sector 39

Area A (B)
Sector 25

Appendix A