Letter of Agreement

Effective: July 11, 2024

1. **PURPOSE.** To establish procedures for the coordination of air traffic and radar handoffs between the Los Angeles ARTCC, Oakland ARTCC, Bakersfield TRACON, Fresno TRACON, and Santa Barbara TRACON. This letter also delegates jurisdiction of portions of the Los Angeles Center control area to Oakland Center and portions of the Oakland Center control area to Los Angeles Center.

2. **SCOPE.** The procedures contained herein are for use between Oakland Center and Los Angeles Center for the controlling of air traffic and the handling of aircraft transitioning between Centers.

3. **CANCELLATION.** All previous agreements are canceled.

4. **DEFINITIONS.**
   a. Facility Areas

GROUP NAME	AIRPORTS
ZLA Areas	
Empire Area	ONT, CNO, POC, AJO, EMT, RAL, SBD
Coast Area	SNA, LGB, TOA, FUL
Burbank Area	BUR, VNY
San Diego Area	SAN, CRQ, NFG, OKB
LA Basin	All airports in Southern California
Las Vegas Area (L30)	LAS, VGT, HND, BVU, LSV
ZOA Areas	
Oakland Area	OAK, HWD
Sacramento Area	SMF, SAC, MHR, MCC, O88
San Jose Area	SJC, MRY, SNS, NUQ
Bay Area	SFO, OAK, SJC, NUQ, CCR, HWD, LVK, APC, RHV, SQL

5. **PROCEDURES.**
   a. General.
      i. Preferred routes and altitude restrictions for turbojet aircraft are described in Attachments 1 and 2. Tower Enroute Control (TEC) routes for operations between the FAT and BFL TRACONs are included in attachment 3.
      ii. The minimum radar separation for aircraft being transferred between facilities is 5 nm, constant or increasing.
         1. Whenever miles-in-trail restrictions are imposed for identified facility airports, sequencing must be ensured regardless of altitudes. During these times, BUR/VNY/SMO, SNA/LGB, and LAX/HHR must each be treated as one airport.

iii. Inappropriate altitude for direction of flight (IAFDOF), for reasons of traffic, may be assigned with prior approval from the receiving facility.
   1. Aircraft handed off from ZOA Area South to ZLA Sector 26, above FL240 and east of NLC must be assigned odd cardinal altitudes, regardless of compass heading.
   2. Aircraft handed off from ZLA Sector 26 to ZOA Area South, above FL240 and east of NLC, or above FL200 and between NLC and the PRB shelf, must be assigned even cardinal altitudes, regardless of compass heading.

iv. Each Center must advise the other of the configuration of the adjacent sectors. Coordination may be accomplished either verbally or via PM.

v. Each Center must keep the other advised, in a timely manner, of any changes, including sector saturation, weather, or equipment malfunction, which may limit or adversely affect air traffic control and/or facility operation.

vi. Each facility must advise the other of the release of military operating area (MOA), warning area and restricted airspace immediately adjacent to the common boundaries.

vii. Aircraft descending to meet altitude restrictions contained in this LOA must enter the designated sector at or below the restriction altitude unless otherwise specified.

viii. All control instructions issued for turns, speeds, and altitude changes covered in this LOA must be reflected in the data block or flight plan.

ix. Transfer of Control
   1. Control for speed adjustments, changes to the data block, and beacon codes is released upon the completion of a handoff and a frequency change.
   2. For all items contained in the following table, control is released on contact:

FROM	TO	QUALIFIER	CONTROL
From ZLA			
ZLA 27	ZOA Area South	North of EHF	Turns up to 25°
ZLA 25/28	ZOA Area South	Within 15 nm of boundary	Turns up to 40°
	ZOA Pac South		Turns up to 40° for all aircraft; descent to FL240 for non-turbojet and all San Jose Area arrivals
ZLA 16	ZOA Area East	North of BTY	Turns
SBA	ZOA		Turns up to 50°, climb (descent for PRB arrivals)
BFL	ZOA		Turns up to 45°
BFL	FAT	Within 10 nm of boundary	All

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FROM	TO	QUALIFIER	CONTROL
From ZOA			
ZOA Area South/Pac South	ZLA 25	Within 15 nm of boundary	Turns up to 40° for all aircraft; descent to FL240 for non-turbojet and all SBA arrivals
ZOA Area South	ZLA 27	South of FAT	Turns up to 25°
ZOA Area East	ZLA 16	Within 15 nm of boundary	Turns
		Within 15 nm of boundary, Landing L30	Descent
ZOA	SBA		Turns up to 50°
ZOA	BFL		Turns up to 45°
FAT	BFL	Within 10 nm of boundary	All

b. Domestic

i. Operations at airports near ZOA/ZLA boundary

1. The following table contains control instructions to be issued by the involved facilities when handling traffic departing/arriving airports near the boundary:

FROM	TO	QUALIFIER	INSTRUCTIONS/RESTRICTIONS
From ZLA			
SBA	ZOA Area South	SBP Departures	Climbing to 8,000 or lower filed
ZLA 25/26		PRB Arrivals	Descending to 8,000 Direct PRB or any PRB IAF ZOA has control on contact
SBA			Descending to 6,000 Direct PRB
BFL		FAT Arrivals	Via ALTTA STAR, at 12,000
		BFL TRACON Departures	Climbing to 12,000 or lower filed ZOA has control within 10 nm of the boundary
ZLA 27		FAT Arrivals	Via ALTTA STAR, at 14,000
		NLC Arrivals	16,000 or lowest available Via CETTA
ZLA 26			Descending to 16,000 Routed AVE CARRL or AVE WADDE
From ZOA			
ZOA Area South	SBA	SBP Arrivals	Descending to 7,000 Direct SBP, MQO, CREPE, or CADAB
		PRB Departures	APREQ departures entering SBA
	BFL	BFL TRACON Arrivals	Descending to 13,000 BFL has control for descent within 5 nm of the boundary

ii. SBA TRACON:
1. When the Hunter SUA is active, aircraft entering ZOA airspace from SBA TRACON airspace must be routed as follows:
a. West of the Hunter SUA
i. Between 7,000 and 10,000 feet: V27.BSR direct next fix
ii. Above 10,000 feet: MQO..CLMNS..LIBBO direct next fix
b. East of the Hunter SUA: PRB direct next fix

iii. BFL TRACON:
1. ZOA must handoff or point out aircraft landing BFL to ZLA
2. The Pixey Area (Attachment 5) is continuously delegated to ZOA (from 11,000 to 13,000) and FAT (from surface to 10,000)

iv. ZOA will ensure DME-equipped turbojet aircraft departing MRY, SNS, OAR, and WVI landing LGB and SNA are routed via the existing Offshore Route, joining that route no further south than MCKEY/YYUNG/TILLT unless coordinated with ZLA.

c. Oceanic
i. Coordination
1. Coordination shall occur for every aircraft transiting the common boundaries of the facilities that are parties to this LOA at least 15 minutes prior to the transfer of control point (TCP).
a. If an aircraft is departing an airport that is less than 15 minutes away from the TCP, the coordination shall be completed as soon as practicable, preferably prior to the aircraft becoming airborne.
2. Coordination shall consist of the aircraft's callsign, TCP fix, and assigned altitude.
EXAMPLE-
ZAK_FSS LAX_CTR: DAL436, GALIP, FL330.
3. Aircraft shall be instructed to switch to the receiving controller's frequency no later than 5 minutes prior to the TCP.
a. Aircraft entering oceanic airspace shall be instructed to squawk 2000 and to contact the appropriate HF radio operator.

ii. Altitude Assignment
1. Aircraft operation on a unidirectional route (R576 and R577) may be assigned any cardinal altitude. In the presence of convective weather, altitude assignment must be appropriate for direction of flight.

6. **ATTACHMENTS.**
a. Attachment 1. Preferred Routes and Altitudes from Oakland Center to Los Angeles Center for Turbojets and Turboprops
b. Attachment 2. Preferred Routes and Altitudes from Los Angeles Center to Oakland Center for Turbojets and Turboprops
c. Attachment 3. Tower Enroute Control Routes Between FAT and BFL TRACONs
d. Attachment 4. Paso Robles Area
e. Attachment 5. Lemoore Area
f. Attachment 6. Pixey Area
g. Attachment 7. ZLA Oceanic Shelf
h. Attachment 8. List of Changes

Los Angeles ARTCC, Oakland ARTCC, Bakersfield TRACON, Fresno TRACON, and Santa Barbara TRACON

ATTACHMENT 1. PREFERRED ROUTES AND ALTITUDES FROM OAKLAND CENTER TO LOS ANGELES CENTER FOR TURBOJETS AND TURBOPROPS (as specified)

Preferred routes and altitudes for aircraft originating in or over-flying Oakland Center and entering Los Angeles Center.

DEPARTURE	DESTINATION	ROUTING	ALTITUDE/ NOTES
LOS ANGELES AREA			
FAT	LAX	..PONDD..TAFTO..MUPTT.IRNMN STAR	AOB FL230
MRY		..TOKIO.HUULL STAR ..LIBBO..CLMNS..MQO.VTU.SADDE STAR (Non-RNAV)	
All Other Jets	LAX (West)	..IRNMN STAR ..AVE.SADDE STAR (Non-RNAV)	Direct no further than DOUIT
All Other Jets	LAX (East)	..ZUUMA STAR ..AVE.MOOR STAR (Non-RNAV)	
SJC (RNAV)	SMO	..EBAYE..BURGL..HONZK.BONJO STAR	AOB FL310
All Others		..BONJO STAR ..FERN STAR (Non-RNAV)	
All Other Props	LAX/SMO	..WAYVE STAR ..KIMMO STAR (Non-RNAV)	AOB FL230
COAST AREA			
SFO/OAK	LGB	..TILLT.BAUBB STAR ..RDHOT.PCIFC STAR ..MCKEY..DAISY..BENET(Non-RNAV) ..FLW.TANDY STAR (Non-RNAV)	
	SNA	..TILLT.TILLT STAR ..RDHOT.OHSEA STAR ..MCKEY..DAISY..BENET(Non-RNAV) ..FLW.TANDY STAR (Non-RNAV)	
SJC	LGB	..EBAYE..BURGL..ELLBC.PCIFC STAR ..FLW.TANDY STAR (Non-RNAV)	
	SNA	..EBAYE..BURGL..ELLBC.OHSEA STAR ..FLW.TANDY STAR (Non-RNAV)	
RNO/SMF (RNAV)	LGB	..REBRG.PCIFC STAR	
	SNA	..REBRG.OHSEA STAR	
All Others	LGB	..PCFIC STAR ..TANDY STAR (Non-RNAV)	
	SNA	..OHSEA STAR ..TANDY STAR (Non-RNAV)	

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BURBANK AREA			
SJC (RNAV)	BUR	..EBAYE..BURGL..HONZK.ROKKR STAR	AOB FL310
	VNY	..EBAYE..BURGL..HONZK.IVINS STAR	
All Other Jets	BUR	..ROKKR STAR ..FERN STAR (Non-RNAV)	
	VNY	..IVINS STAR ..FERN STAR (Non-RNAV)	
All Other Props	BUR/VNY	..WEESL STAR	AOB FL230
SAN DIEGO AREA			
SFO/OAK	SAN (West)	MCKEY..LAX.COMIX STAR YYUNG..LAX.COMIX STAR CISKO..FLW..LAX.COMIX STAR (SFOE) ..LAX.HUBRD STAR (Non-RNAV)	Direct LAX approved
ALL		..LAX.COMIX STAR ..HUULK.COMIX STAR ..LAX.HUBRD STAR (Non-RNAV)	
SFO/OAK	SAN (East)	MCKEY..LAX.PLYYA STAR YYUNG..LAX.PLYYA STAR ..CISKO..FLW..LAX.PLYYA STAR (SFOE) ..LAX.SHAMU STAR (Non-RNAV)	Direct LAX approved
ALL		..LAX.PLYYA STAR ..LAX.SHAMU STAR (Non-RNAV)	
ALL	CRQ/NFG	..LEGOZ STAR ..AVE..FIM (Non-RNAV)	AOB FL250 via LANDO
PALM SPRINGS			
ALL	PSP/TRM/UDD	..SIZLR STAR ..PMD.V137.PSP (Non-RNAV)	AOB FL370
EMPIRE AREA			
ALL	ALL	ZIGGY STAR	AOB FL350
LAS VEGAS TERMINAL AREA			
ALL	LAS Jets	..TQILA.COKTL STAR .Q174.FLCHR.COKTL STAR .J92.BTY.PUMLE STAR (Non-RNAV)	AOB FL330 AOB FL310 via Q174
ALL	LAS Non-Jets/HND	..FUULL.GAMES STAR .J92 (Non-RNAV)	AOB FL310 AOB FL290 via J92
ALL	VGT	.Q174.FLCHR.FLCHR STAR .J92 (Non-RNAV)	
ALL	LSV	.J92	AOB FL330
OTHER AIRPORTS			
ALL	SBA	..GVO..HABUT ..SNS.J88.RZS	AOB FL290
ALL	SBP	..MQO.. ..CREPE.. ..CADAB..	

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ZLA OVERFLIGHTS			
ALL	MEXICO	..LAX..	Through ZLA25/27
		..AVE.J1.LAX.. ..FIM..LAX.. ..FLW..LAX..	Through ZLA26
SFO/OAK/SJC	ALL	..BOILE..	Through ZLA27

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ATTACHMENT 2. PREFERRED ROUTES AND ALTITUDES FROM LOS ANGELES CENTER TO OAKLAND CENTER FOR TURBOJETS AND TURBOPROPS (as specified)

Preferred routes and altitudes for aircraft originating in or over-flying Los Angeles Center and entering Oakland Center.

DEPARTURE	DESTINATION	ROUTING	ALTITUDE/ NOTES
SAN FRANCISCO AREA			
LA Basin/ MEXICO	SFO (West)	..SERFR.SERFR STAR ..BSR.BSR STAR (Non-RNAV)	
	SFO (East)	..SERFR.WWAVS STAR ..BSR..SHOEY..EUGEN (Non-RNAV)	
PSP/Burbank Area	SFO (West)	..MAKRS..SERFR.SERFR STAR ..MAKRS..BSR	
	SFO (East)	..MAKRS..SERFR.WWAVS STAR ..BSR..SHOEY..EUGEN (Non-RNAV)	
Las Vegas Area/Airports East of LAS	SFO (West)	..RUSME.DYAMD STAR .J92.OAL.MOD STAR (Non-RNAV)	
	SFO (East)	..RUSME.ALWYS STAR .J92.OAL.MOD STAR (Non-RNAV)	
SBA Area Jets	SFO	..MQO..CLMNS..LIBBO..NRRLI..SERFR..	
SBA Area Props		..MQO..CLMNS..LIBBO..OSI..	
SAN JOSE AREA			
LA Basin/MEXICO	SJC	..SCTRR..TROXX.SILCN STAR ..ROBIE STAR (Non-RNAV)	AOB FL360
PSP/Burbank/ Empire Area		..MAKRS..TROXX.SILCN STAR ..ROBIE STAR (Non-RNAV)	
Las Vegas Area/Airports East of LAS	SJC (West)	..RUSME.RAZRR STAR .J92.OAL..HYP (Non-RNAV)	Direct STUBL approved
	SJC (East)	..RUSME.RAZRR STAR .J92.OAL..HYP (Non-RNAV)	
LA Basin	MRY	..MAKRS ..WIGGL..(West of MAKRS)	AOB FL280
Las Vegas Area/Airports East of LAS		..BTY.J92.LIDAT..FRA..SNS	
OAKLAND AREA			
LA Basin/ MEXICO	OAK/HWD (West)	..RGOOD.EMZOH STAR ..PXN STAR (HWD + Non-RNAV)	
	OAK/HWD (East)	..RGOOD.SKIZM STAR ..PXN STAR (HWD + Non-RNAV)	
NTD/SBA Area	OAK/HWD (West)	..EMZOH.EMZOH STAR ..PXN.PXN STAR (HWD + Non-RNAV)	
	OAK/HWD (East)	..EMZOH.SKIZM STAR ..PXN.PXN STAR (HWD + Non-RNAV)	

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Las Vegas Area/Airports East of LAS	OAK/HWD (West)	..RUSME.OAKES STAR (OAK) ..RUSME.SHARR STAR (HWD) .J92.LIDAT..OAL..SUNOL (Non-RNAV)	
Las Vegas Area	OAK/HWD (East)	..RUSME.BANDD STAR (OAK) ..RUSME.SHARR STAR (HWD) .J92.LIDAT..OAL..SUNOL (Non-RNAV)	
SACRAMENTO AREA			
LA Basin/ MEXICO	SMF	..NURAY.SUUTR STAR ..EHF.V23.FRAME (Non-RNAV)	
Las Vegas Area/Airports East of LAS		..DONNR.SLMMR STAR .J92.OAL..SWR..FLUNK (Non-RNAV)	AOB FL360
RENO AREA			
LA Basin/MEXICO	RNO	..FMG ..SLEAT.TARVR STAR (RNO North)	
Las Vegas Area/Airports East of LAS	RNO (South)	..KENNO.SCOLA STAR .J92.OAL..MVA RYANN STAR (Non-RNAV)	AOB FL340
	RNO (North)	..KENNO.TARVR STAR .J92.OAL..TARVR..SPOON (Non-RNAV)	
Las Vegas Area/Airports East of LAS	NFL	..KENNO .J92.OAL (Non-RNAV)	AOB FL280
OTHER AIRPORTS			
All except Las Vegas Area/Airports East of LAS	FAT	..TTE.ALTTA STAR	All aircraft types
Las Vegas Area/Airports East of LAS		..KENNO..CANDA ..RUSME..CABAB ..KENNO..BIH..FRA (Non-RNAV)	
LA Basin/MEXICO	SCK	..NURAY..MOD ..EHF.V23.FRAME (Non-RNAV)	
	CCR/SUU	..NURAY.BMBER STAR ..EHF.V23.FRAME (Non-RNAV)	
All	PRB	..PRB	
All	NLC	..AVE..CARRL or ..AVE..WADDE	Over AVE
		..CETTA..	East of AVE
LAX Noise Abatement Procedures			
LAX	OAK/HWD	..EMZOH	
LAX	RNO	..FRA.J7.FMG	Over or East of AVE
LAX	SEA/BFI/PDX/CY VR/GEG	..SNS	West of PRB
Required Asia Routing			
LA Basin	Via ALCOA, REDWD, LINUZ, BOXER	..LIBBO..BRINY	

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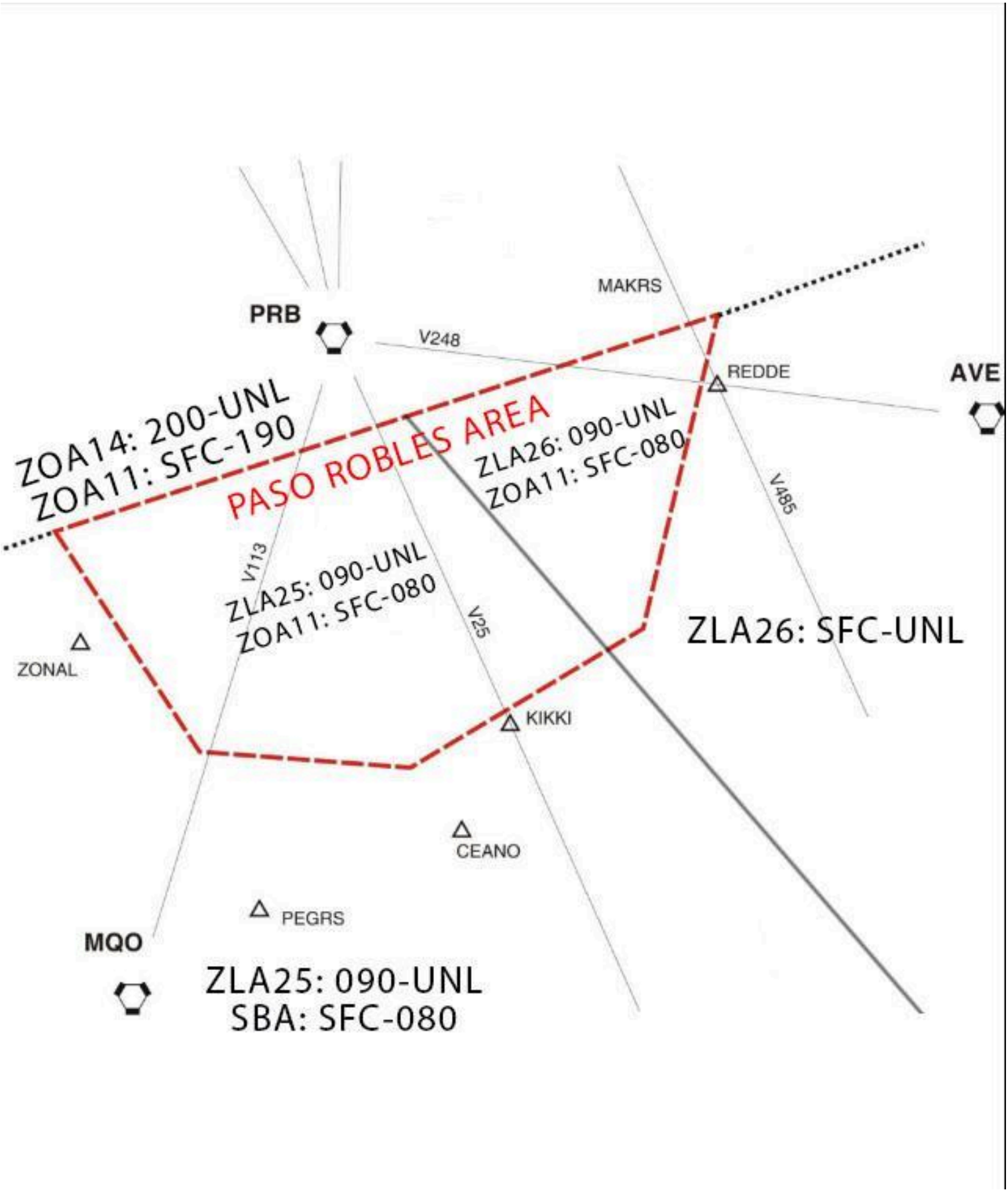
ATTACHMENT 3. TOWER ENROUTE CONTROL ROUTES BETWEEN FAT AND BFL TRACONs

DESTINATION	ROUTING	ALTITUDE
LANDING BAKERSFIELD TERMINAL AREA		
BFL, L45, MIT, L17, L84, L62	.V23.EHF..	5,000/7,000/9,000
DLO, L19		5,000/7,000
PTV	.165.TTE.. or direct IAF RNAV 12	5,000
LANDING FRESNO TERMINAL AREA		
FAT	..TTE.ALTTA STAR	6,000/8,000/10,000
FCH	.V23.FRAME..	
MAE, E79, O32, D86, 0Q4		
VIS	..BRETT..PANES.. or ..BRETT..localizer	6,000
TLR	.V165.EXTRA..	
HJO	..VIS.. or direct IAF RNAV 32	

ATTACHMENT 4. PASO ROBLES AREA



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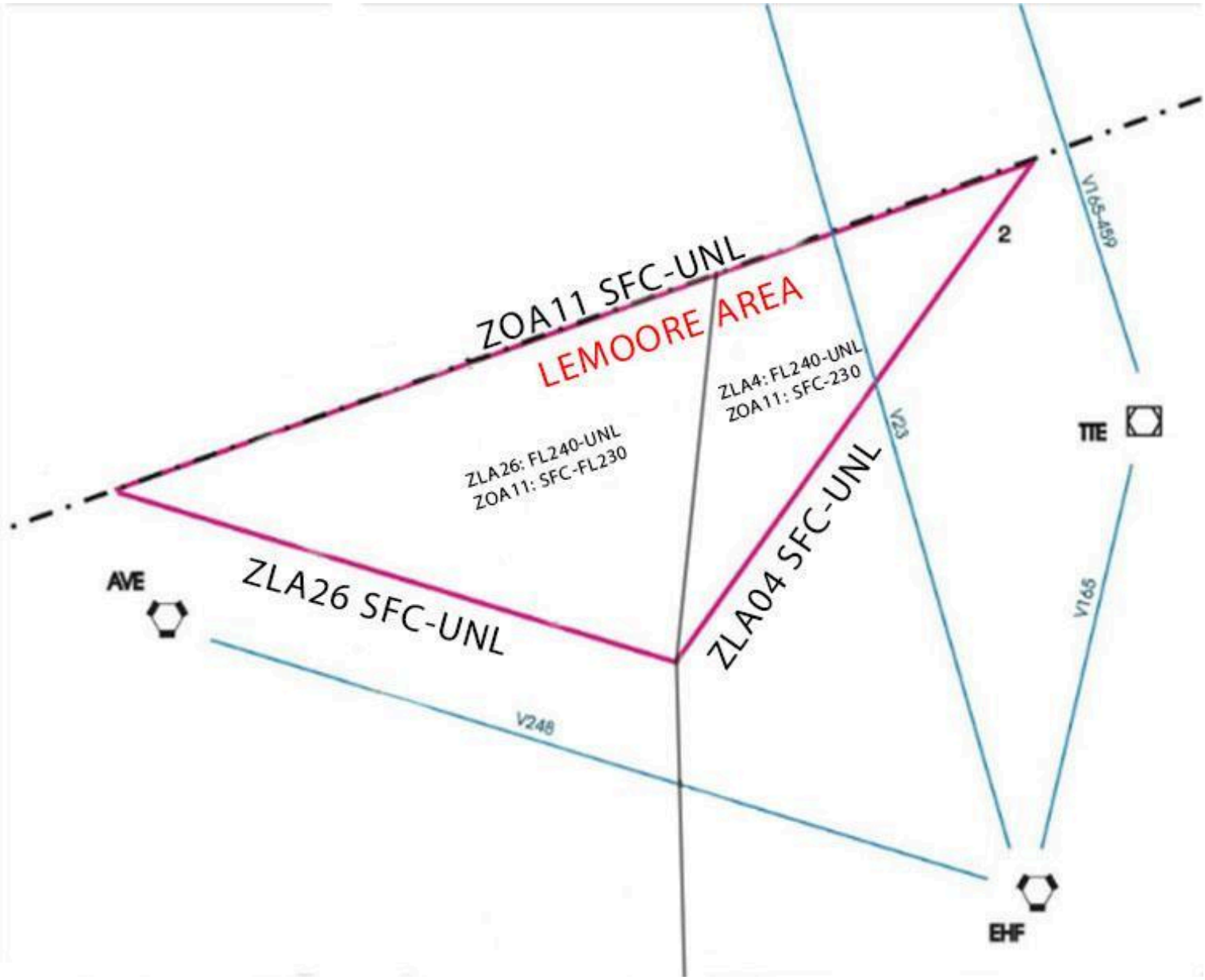
ATTACHMENT 5. LEMOORE AREA



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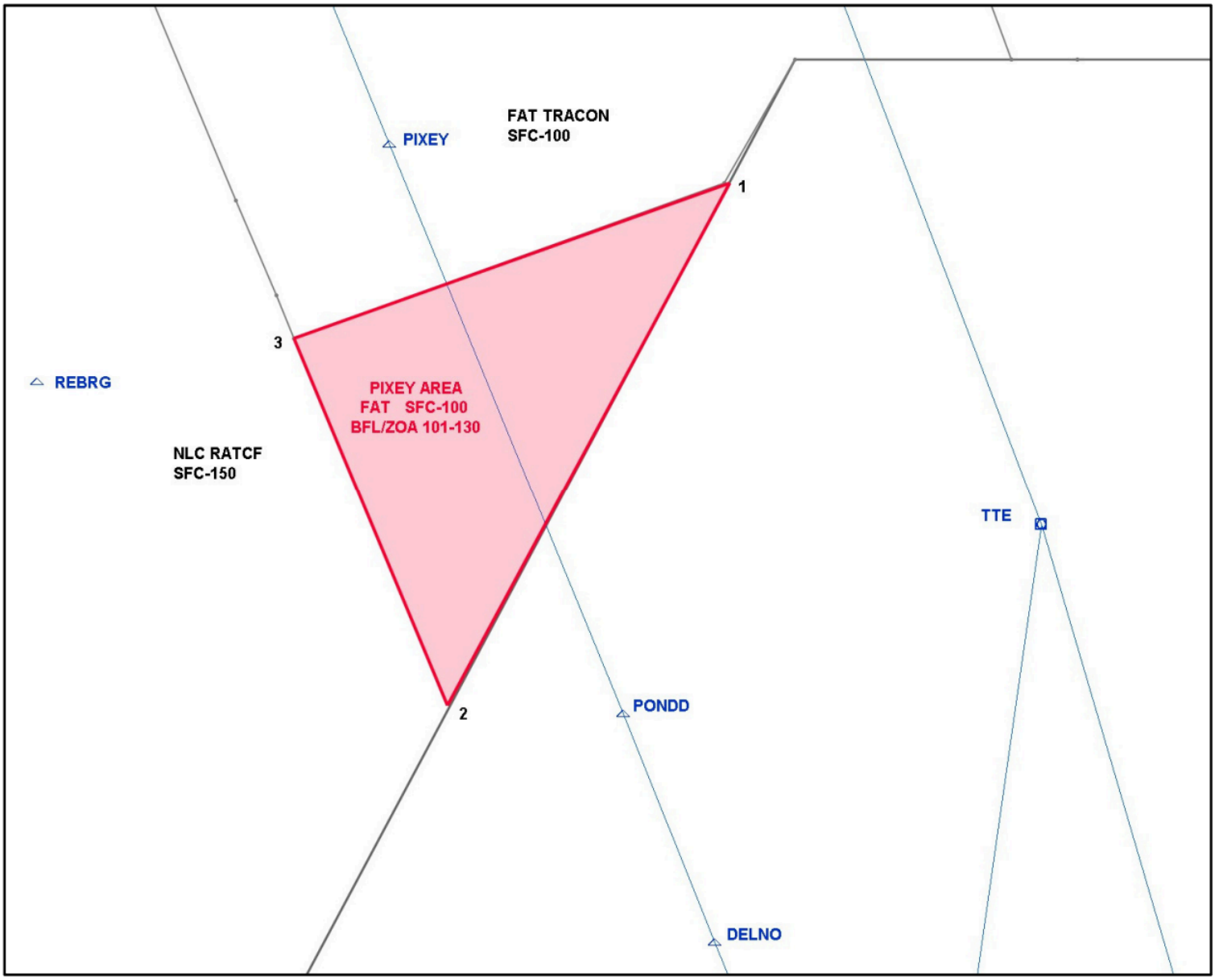
ATTACHMENT 6. PIXEY AREA



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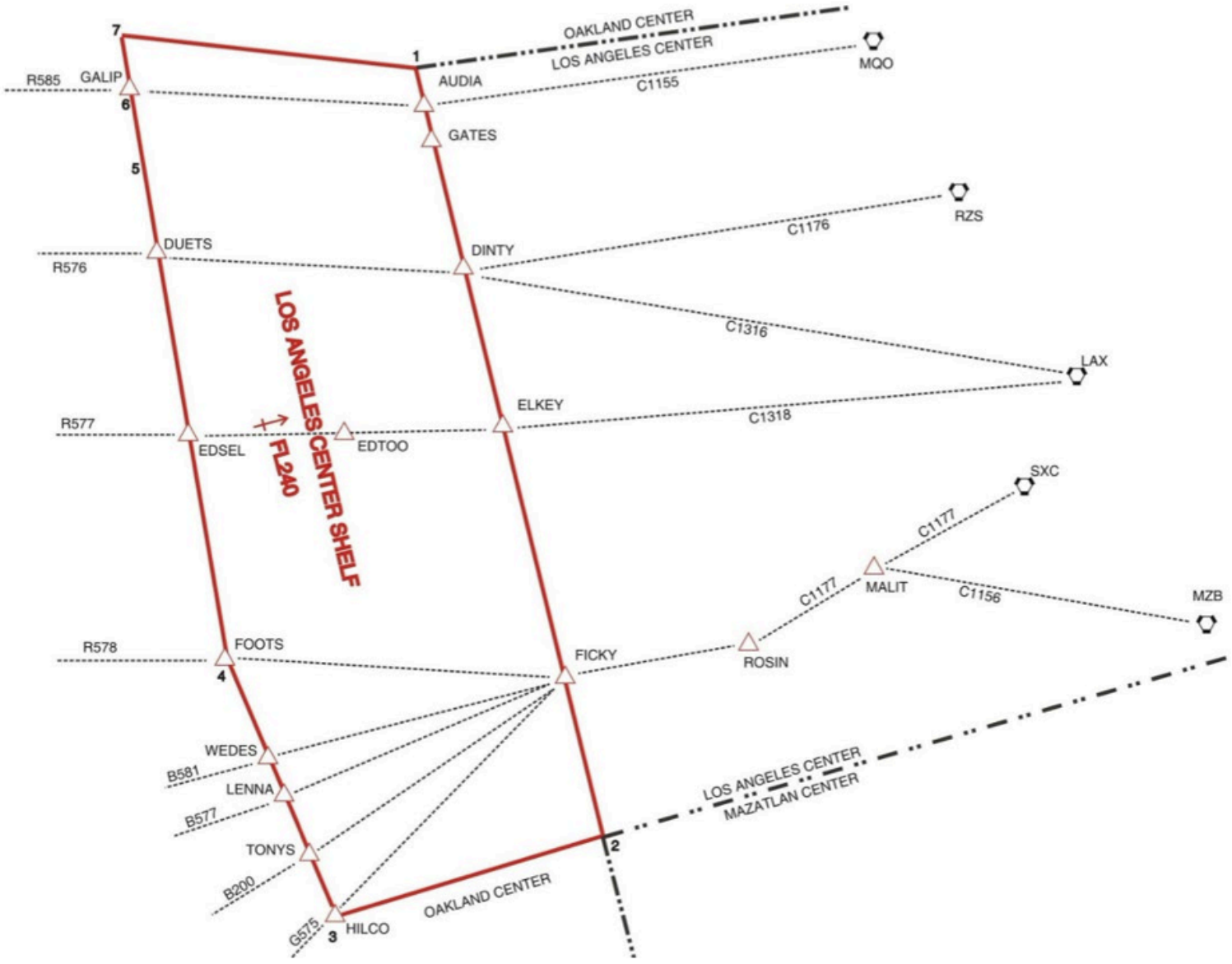
ATTACHMENT 7. ZLA OCEANIC SHELF



ATTACHMENT 8. LIST OF CHANGES

Change	Date	Description	ZOA Approval	ZLA Approval
--	04MAY2017	Initial Write	Ryan Parry - ATM	Ethan Bernstein – ATM
CHG01	25MAR2018	Rewrite for new ZOA sectors	Ryan Parry – ATM	Nickolas Christopher – ATM
CHG02	16 SEP 2019	Update routes and ZLA sectors	Ryan Parry – ATM	Nickolas Christopher - ATM
CHG03	01 MAR 2021	L30 Metroplex changes	Daniel Everman – ATM	Nickolas Christopher - ATM
CHG04	24 APR 2021	Updated SAN Routings	Daniel Everman – ATM	Nickolas Christopher - ATM
CHG05	31 AUG 2021	Updated MRY/SMF Routing	Daniel Everman – ATM	Nickolas Christopher – ATM
CHG06	23 FEB 2023	Merge in SBA/BFL LOAs, reformat, update routings, add oceanic procedures	Ryan Parry - ATM	Nickolas Christopher – ATM
CHG07	11 JUL 2024	Updates for ZLA Sectors, changes to SFO SIDs	Andrew Selder - ATM	Nickolas Christopher – ATM

Andrew Selder **Air Traffic Manager – Oakland ARTCC**	**Nickolas Christopher** **Air Traffic Manager – Los Angeles ARTCC**