

FEDERAL AVIATION ADMINISTRATION
 FLIGHT STANDARDS SERVICE
 STANDARD TERMINAL ARRIVAL (STAR)

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

Arrival Name ZUUMA (RNAV)	Number FOUR	STAR Computer Code ZUUMA.ZUUMA4	Superseded Number THREE	Dated 06/20/2019	Effective Date 26DEC2024
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TRANSITION ROUTES:

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes
BURGL	BURGL.ZUUMA4	BURGL	BURGL						
			DOUIT	136.33	26.52	13000	9800		
			UCANN	132.40	28.02	11000	9800		BETWEEN FL210 AND FL290
			ALMST	132.60	12.31	11000	9800		BETWEEN FL180 AND FL210
			DANYY	133.47	14.59	11000	9800		BETWEEN 14000 AND 17000
			ZUUMA	135.08	18.72	9000	9000		BETWEEN 9000 AND 11000
DOUIT	DOUIT.ZUUMA4	DOUIT	DOUIT						
			UCANN	132.40	28.02	11000	9800		BETWEEN FL210 AND FL290
			ALMST	132.60	12.31	11000	9800		BETWEEN FL180 AND FL210
			DANYY	133.47	14.59	11000	9800		BETWEEN 14000 AND 17000
			ZUUMA	135.08	18.72	9000	9000		BETWEEN 9000 AND 11000
REBRG	REBRG.ZUUMA4	REBRG	REBRG						
			STADD	185.02	19.70	17000	9800		
			DOUIT	179.23	23.09	13000	9800		
			UCANN	132.40	28.02	11000	9800		BETWEEN FL210 AND FL290
			ALMST	132.60	12.31	11000	9800		BETWEEN FL180 AND FL210
			DANYY	133.47	14.59	11000	9800		BETWEEN 14000 AND 17000
			ZUUMA	135.08	18.72	9000	9000		BETWEEN 9000 AND 11000

ARRIVAL ROUTE DESCRIPTION:

LANDING LAX RWY 6L/R, 7L/R: FROM ZUUMA ON TRACK 141.86/7.00 TO CROSS DEEZY AT OR ABOVE 8000 AND AT 220 KIAS, THEN ON TRACK 141.90/9.38 TO CROSS WAKER AT 6000 AND AT 210 KIAS. EXPECT ILS OR LOC RWY 6L APPROACH OR RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING SMO: FROM ZUUMA ON TRACK 141.86/7.00 TO CROSS DEEZY AT OR ABOVE 8000 AND AT 220 KIAS, THEN ON TRACK 141.90/9.38 TO CROSS WAKER AT 6000 AND AT 210 KIAS. EXPECT RNAV (GPS) Y RWY 3 APPROACH.

PBN REQUIREMENT NOTES:

RNAV 1 - DME/DME/IRU OR GPS

EQUIPMENT REQUIREMENT NOTES:

RADAR REQUIRED



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PROCEDURAL DATA NOTES:

- NOTE: JET AIRCRAFT ONLY
- NOTE: ZUMMA STAR USED DURING LAX EAST TRAFFIC OPERATIONS AND NOISE ABATEMENT CONFIGURATION 0000-0630 LCL.
- NOTE: LAX TRAFFIC EXPECT RWY 6L UNLESS OTHERWISE ASSIGNED.

FIXES AND/OR HOLDING PATTERNS:

CHART HOLDING AT ALMST: HOLD NW, RT, 132.60 INBOUND, 10 NM LEGS.

COMMUNICATIONS:

CHART: LOS ANGELES TOWER (N/S), SANTA MONICA TOWER

AIRPORTS SERVED:

AIRPORT ID	CITY	STATE
LAX	LOS ANGELES	CA
SMO	SANTA MONICA	CA

LOST COMMUNICATIONS PREFERENCES:

- LANDING LAX: PROCEED ON THE RNAV (RNP) Z RWY 6L OR ILS OR LOC RWY 6L APPROACH.
- LANDING SMO: PROCEED ON THE RNAV (GPS) Y RWY 3 APPROACH.

REMARKS:

MEAS ABOVE MOCAS NECESSARY FOR ATC COMMUNICATION AND/OR SATISFACTORY DME/DME/IRU COVERAGE.

ADDITIONAL FLIGHT DATA:

- DME/DME ASSESSMENT: SAT (RNP 2.0)
- MAG VAR: LAX 12E/2020
- CHART AT WAKER TERMINUS: LAX LDG RWY 6L/R, 7L/R.
- CHART AT WAKER TERMINUS: LDG SMO.

FLIGHT INSPECTED BY:

ORGANIZATION: FPO
DATE: 09/26/2024

Flight Inspected Signature:

Digitally signed by
JOSEPH L ZEDER
 Sep 30, 2024

DEVELOPED BY:

JON NEIDIGH
 AJV-A432
 06/21/2024

Developed By Signature:

Digitally signed by
JON M NEIDIGH
 Aug 08, 2024

APPROVED BY:

JOSEPH L. ZEDER
 AJV-A432
 12/26/2024

Approved By Signature:

Digitally signed by
JOSEPH L ZEDER
 Sep 30, 2024

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ZUUMA (RNAV)	FOUR	ZUUMA.ZUUMA4	THREE	06/20/2019	26DEC2024

CHANGES:

1. CHANGED ALTITUDE RESTRICTION AT UCANN FROM AT/BELOW FL290 TO BETWEEN FL210 AND FL290.
2. CHANGED ALTITUDE RESTRICTION AT ALMST FROM BETWEEN 17000 AND FL210 TO BETWEEN FL180 AND FL210.
3. CHANGED ALTITUDE RESTRICTION AT DANY Y FROM BETWEEN 13000 AND 17000 TO BETWEEN 14000 AND 17000.
4. ADDED DOUIT ENROUTE TRANSITION.
5. CHANGED BURGL-DOUIT MEA FROM 17000 TO 13000 AND MOCA FROM 6600 TO 9800.
6. CHANGED DOUIT-UCANN MEA FROM 17000 TO 11000 AND MOCA FROM 6800 TO 9800.
7. CHANGED UCANN-ALMST MEA FROM 17000 TO 11000 AND MOCA FROM 6500 TO 9800.
8. CHANGED ALMST-DANY Y MEA FROM 13000 TO 11000 AND MOCA FROM 9700 TO 9800.
9. CHANGED REBRD-STADD MOCA FROM 2800 TO 9800.
10. CHANGED STADD-DOUIT MEA FROM 17000 TO 13000 AND MOCA FROM 6600 TO 9800.
11. ADDED DANY Y-ZUUMA MOCA 9000.
12. CHANGED LAX AND SMO ARRIVAL ROUTE DESCRIPTIONS: DEEZY WP ADDED BETWEEN ZUMMA AND WAKER WITH A CROSSING RESTRICTION OF AT OR ABOVE 8000 AND 220 KIAS SPEED RESTRICTION.
13. MOVED NOTE: RNAV 1 – DME/DME/IRU OR GPS FROM PROCEDURAL DATA NOTES TO PBN REQUIREMENT NOTES.
14. MOVED NOTE: RADAR REQUIRED FROM PROCEDURAL DATA NOTES TO EQUIPMENT REQUIREMENT NOTES.
15. CHANGED PROCEDURAL DATA NOTE “TURBOJET AIRCRAFT ONLY” TO READ “JET AIRCRAFT ONLY.”
16. REMOVED PROCEDURAL DATA NOTE: IF UNABLE TO MEET SPEED RESTRICTION AT ALMST, ADVISE ATC ON INITIAL CONTACT.
17. REMOVED SOCAL APP CON, LOS ANGELES D-ATIS, SANTA MONICA ATIS FROM COMMUNICATIONS.
18. CHANGED SMO LOST COMMUNICATIONS PREFERENCES FROM “LANDING SMO: PROCEED ON THE RNAV (GPS) RWY 03 APPROACH” TO “LANDING SMO: PROCEED ON THE RNAV (GPS) Y RWY 3 APPROACH.”
19. ADDED TERMINUS INFO TO ADDITIONAL FLIGHT DATA.

REASONS:

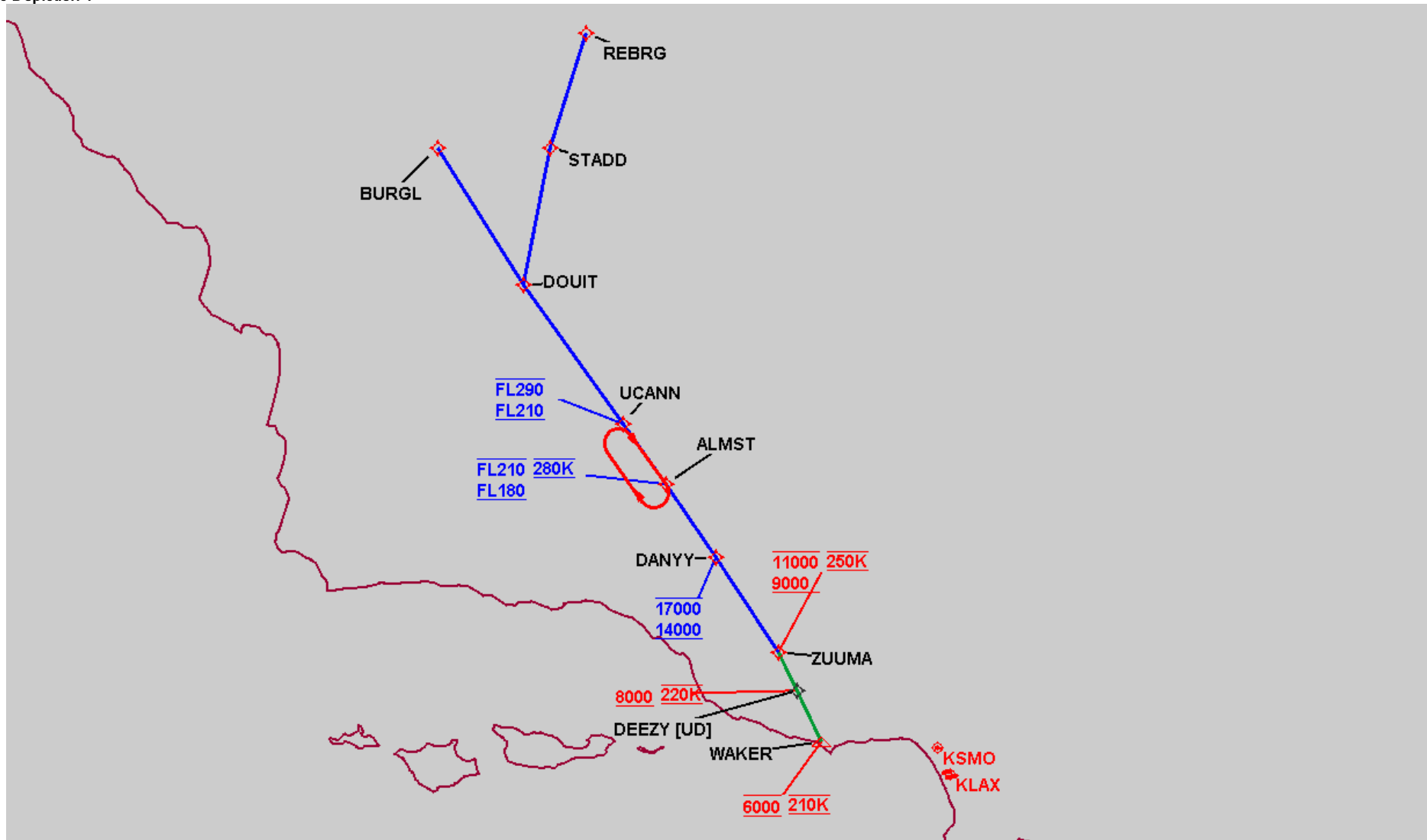
- 1-3. RESOLVES DG CRITERIA FAILURE.
4. ATC REQUEST TO FACILITATE DATA COMM COMPATIBILITY.
- 5-11. FOR ATC COMMUNICATION, SATISFACTORY DME/DME/IRU COVERAGE AND UPDATED TERRAIN/OBSTRUCTION EVALUATION.
12. ADDED NEW WP (DEEZY) WITH ALTITUDE/SPEED RESTRICTIONS.
- 13-14. 8260.19J, 4-5-12 D.
15. ALL TURBOJET REFERENCES CHANGED TO JET SINCE 8260.19H, 1-1-5 A.12
16. NO LONGER NEEDED PER FPT/ATC.
17. APPROACH CONTROL AND ATIS FREQUENCIES WILL BE CHARTED AUTOMATICALLY AND DO NOT NEED TO BE DOCUMENTED, 8260.19J, 4-5-12 F.
18. PER FPT/ATC REQUEST.
19. 8260.19J, 4-5-2 H.2

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ZUUMA (RNAV)	FOUR	ZUUMA.ZUUMA4	THREE	06/20/2019	26DEC2024

Graphic Depiction 1



FEDERAL AVIATION ADMINISTRATION
 FLIGHT STANDARDS SERVICE
 STAR (DATA RECORD)

Arrival Name ZUUMA (RNAV)	Number FOUR	STAR Computer Code ZUUMA.ZUUMA4	Superseded Number THREE	Dated 06/20/2019	Effective Date 26DEC2024
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<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
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En Route Transition									
BURGL	353957.68N / 1200627.86W	Y		IF					BURGL.ZUUMA4
DOUIT	351719.89N / 1194927.26W	Y	FB	TF	148.33	26.52			
UCANN	345429.21N / 1192937.51W	Y	FB	TF	144.40	28.02	FL210BFL290		
ALMST	344425.77N / 1192058.30W	Y	FB	TF	144.60	12.31	FL180BFL210	AT 280K	
DANYY	343223.00N / 1191057.56W	Y	FB	TF	145.47	14.59	14000B17000		
ZUUMA	341637.95N / 1185840.98W	Y	FB	TF	147.08	18.72	9000B11000	AT 250K	

En Route Transition									
DOUIT	351719.89N / 1194927.26W	Y		IF					DOUIT.ZUUMA4
UCANN	345429.21N / 1192937.51W	Y	FB	TF	144.40	28.02	FL210BFL290		
ALMST	344425.77N / 1192058.30W	Y	FB	TF	144.60	12.31	FL180BFL210	AT 280K	
DANYY	343223.00N / 1191057.56W	Y	FB	TF	145.47	14.59	14000B17000		
ZUUMA	341637.95N / 1185840.98W	Y	FB	TF	147.08	18.72	9000B11000	AT 250K	

En Route Transition									
REBRG	355853.00N / 1193653.00W	Y		IF					REBRG.ZUUMA4
STADD	354000.93N / 1194357.63W	Y	FB	TF	197.02	19.70			
DOUIT	351719.89N / 1194927.26W	Y	FB	TF	191.23	23.09			
UCANN	345429.21N / 1192937.51W	Y	FB	TF	144.40	28.02	FL210BFL290		
ALMST	344425.77N / 1192058.30W	Y	FB	TF	144.60	12.31	FL180BFL210	AT 280K	
DANYY	343223.00N / 1191057.56W	Y	FB	TF	145.47	14.59	14000B17000		
ZUUMA	341637.95N / 1185840.98W	Y	FB	TF	147.08	18.72	9000B11000	AT 250K	

Common Route									
ZUUMA	341637.95N / 1185840.98W	Y		IF			9000B11000	AT 250K	ZUUMA.ZUUMA4
DEEZY	341020.02N / 1185457.87W	Y	FB	TF	153.86	07.00	AT/ABOVE 8000	AT 220K	
WAKER	340153.80N / 1185000.06W	Y	FB	TF	153.90	09.38	AT 6000	AT 210K	



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<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
Runway Transition									
ZUUMA	341637.95N / 1185840.98W	Y		IF			9000B11000	AT 250K	
DEEZY	341020.02N / 1185457.87W	Y	FB	TF	153.86	07.00	AT/ABOVE 8000	AT 220K	
WAKER	340153.80N / 1185000.06W	Y	FB	TF	153.90	09.38	AT 6000	AT 210K	
KLAX:RWY 6L,RWY 6R,RWY 7L,RWY 7R									

