

# FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE GRAPHIC DEPARTURE PROCEDURES (DP)

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.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
ECHHO	THREE	ECHHO3.ECHHO	TWO	10/12/2017	
<u>TYPE:</u>	<u>OBSTACLE</u>	<u>COPTER</u>	<u>SID</u>	<u>SPECIAL</u>	<u>RNAV</u>
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## DP ROUTE DESCRIPTION:

**TAKEOFF RWY 9:** CLIMB ON HEADING 094.99 TO 4000, THEN LEFT TURN DIRECT BAUCA, THEN ON TRACK 307.40 TO ECHHO, THENCE...

**TAKEOFF RWY 27:** CLIMB ON HEADING 275.00 TO 520, THEN RIGHT TURN DIRECT LANDN, THEN ON TRACK 330.30 TO ECHHO, THENCE...

...ON (TRANSITION). MAINTAIN 15000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

## TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

<u>TRANSITION NAME</u>	<u>TRANSITION COMPUTER CODE</u>	<u>FROM FIX/NAVAID</u>	<u>TO FIX/NAVAID</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>MEA</u>	<u>MOCA</u>	<u>CROSSING ALTITUDE/FIXES</u>
IKAYE	ECHHO3.IKAYE	ECHHO	GOFUR	TRACK 307.69	16.59	8500	2200	GOFUR AT/ABOVE 15000
		GOFUR	MMOTO	TRACK 306.12	7.74	12000	2200	
		MMOTO	TEDEY	TRACK 310.06	20.66	15000	2280	
		TEDEY	GEEGN	TRACK 287.60	45.40	16000	3700	
SEAL BEACH	ECHHO3.SLI	GEEGN	IKAYE	TRACK 307.85	19.53	16000	5300	
		ECHHO	GOFUR	TRACK 307.69	16.59	8500	2200	GOFUR AT/ABOVE 15000
		GOFUR	MMOTO	TRACK 306.12	7.74	12000	2200	
		MMOTO	SLI VORTAC	TRACK 318.73	35.66	15000	3000	

## PBN REQUIREMENT NOTES:

**NOTE:** RNAV 1 - DME/DME/IRU OR GPS.

## EQUIPMENT REQUIREMENT NOTES:

**NOTE:** RADAR REQUIRED.

## PROCEDURAL DATA NOTES:

**NOTE:** IF UNABLE ALTITUDE RESTRICTION AT GOFUR, ADVISE ATC ON INITIAL CONTACT.

## TAKEOFF MINIMUMS:

**RWY 9:** 400-1 WITH MINIMUM CLIMB OF 610 FT/NM TO 1900 OR STANDARD WITH MINIMUM CLIMB OF 823 FT/NM TO 1900.

**RWY 27:** STANDARD WITH MINIMUM CLIMB OF 500 FT/NM TO 4000.

## TAKEOFF OBSTACLES NOTES:

SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP).



**CONTROLLING OBSTACLES:**  
**RWY 9:** 281 FT MSL TREE (06-251207) 324351.80N/1170957.22W (823 CLIMB GRADIENT), 2766 FT MSL TERRAIN 324148.00N/1165612.00W (CLIMB GRADIENT TERMINATION ALTITUDE), 383 FT MSL BUILDING (06-248106) 324349.80N/1170934.90W (VISIBILITY), 389 FT MSL BUILDING (06-022522) 324350.98N/1170935.18W (CEILING).

**RWY 27:** 175 FT MSL TREE (06-042187) 324432.17N/1171251.97W (CLIMB GRADIENT). 237 FT MSL TREE (06-142003) 324413.65N/1171317.16W (CLIMB GRADIENT TERMINATION ALTITUDE).

**MSA:**  
SAN, 5400.

**LOST COMMUNICATIONS PROCEDURES:**

**ADDITIONAL FLIGHT DATA:**  
AIRPORT MV: SAN 11E/2020  
DME/DME ASSESSMENT: SAT (RNP 2.0).  
CHART: TOP ALTITUDE: 15000.

AIRPORTS SERVED:		
AIRPORT ID	CITY	STATE
SAN	SAN DIEGO	CA

**COMMUNICATIONS:**  
CHART: ATIS, CLNC DEL, GND CON, TOWER.

**FIXES AND/OR NAVAIDS:**

- REMARKS:**
1. WAIVER ON FILE FOR ICA LENGTH IN EXCESS OF 10 NM(S). DUE TO CLIMB GRADIENT BOTH THE 610 AND 823 ICA ARE OVER 10 NM(S).
  2. AFS APPROVAL LETTER ON FILE FOR CLIMB GRADIENTS IN EXCESS OF 500 FT PER NM.
  3. ABBREVIATED AMENDMENT.
  4. 100FT VEG USED PER FPT.

FLIGHT INSPECTED BY	SIGNATURE	OFFICE	DATE	
DEVELOPED BY	SIGNATURE	OFFICE	DATE	
ROBERT G HAMILTON (MATTHEW W.TOWNSEND)		AJV-A433	06/10/2025	
APPROVED BY	SIGNATURE	OFFICE	DATE	TITLE
ROBERT G HAMILTON		AJV-A433	01/22/2026	MANAGER

**REQUIRED EFFECTIVE DATE**  
ROUTINE

**COORDINATED WITH:**

**A4A** ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:**ZLA, SAN DEP CON, SAN ATCT, AMGR

**CHANGES - REASONS:**  
1. DP ROUTE DESCRIPTION: UPDATED RWY 9 FROM "CLIMB HEADING 094.99 TO 4000, THEN LEFT TURN DIRECT BAUCA, THEN ON TRACK 307.40 TO ECHHO, THENCE..." TO "CLIMB ON HEADING 094.99 TO 4000, THEN LEFT TURN DIRECT BAUCA, THEN ON TRACK 307.40 TO ECHHO, THENCE..." - ADDED "ON" PER THE 8260.46K.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
ECHHO	THREE	ECHHO3.ECHHO	TWO	10/12/2017	

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2. TRANSITION ROUTES (GRAPHIC DEPICTION ONLY): ADDED MOCA INFO FOR ALL TRANSITIONS AND ADDED FROM FIX/NAVAIDS TO ALL ROUTES- IAW 8260.46K 3-1-1.J.2.B AND SECTION 2 2.D.4.
3. PBN REQUIREMENTS NOTES: ADDED "NOTE: RNAV 1 - DME/DME/IRU OR GPS" - MOVED AND COMBINED FROM PROCEDURAL DATA NOTES AND IAW 8260.46K 2-1-5.I.3.E.
4. EQUIPMENT REQUIREMENTS NOTE: ADDED "RADAR REQUIRED" - MOVED FROM PROCEDURAL DATA NOTES AND IAW 8260.46K 2-1-5.J.
5. TAKEOFF MINIMUMS: UPDATED RWY 9 FROM "400-1 WITH MINIMUM CLIMB OF 610 FT PER NM TO 1900 OR STANDARD WITH MINIMUM CLIMB OF 687 FT PER NM TO 1900" TO "400-1 WITH MINIMUM CLIMB OF 610 FT/NM TO 1900 OR STANDARD WITH MINIMUM CLIMB OF 823 FT/NM TO 1900" - CLEARS NOTAM FDC 5/4295 AND NEW CONTROLLING OBSTACLE.
6. TAKEOFF MINIMUMS: UPDATED RWY 27 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 4000" TO "STANDARD WITH MINIMUM CLIMB OF 500 FT/NM TO 4000" - IAW 8260.46K.
7. TAKEOFF OBSTACLE NOTES: REMOVED TAKEOFF OBSTACLE NOTES AND UPDATED TO "SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)" - ODP ESTABLISHED AND IAW 8260.46K APPENDIX E SECTION 1 2.I.
8. CONTROLLING OBSTACLES: UPDATED CONTROLLING OBSTACLES ALL RUNWAYS - UPDATED TARGETS EVALUATION.
9. MSA: ADDED "SAN, 5400" - IAW 82604.46K APPENDIX E SECTION 1 2.K.
10. COMMUNICATIONS: REMOVED "SOCAL DEP CON (EAST)" - IAW 8260.46K SECTION 2 FAA FORM 15B 2.O.
11. REMARKS: REMOVED "3. MOCA(S) NOT CHARTED PER ATC REQUEST" AND ADDED "4. 100FT VEG USED PER FPT" - IAW 82604.46K APPENDIX E SECTION 1 2.Q.



**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
DEPARTURE (DATA RECORD)**

DP NAME		NUMBER		DP COMPUTER CODE		SUPERSEDED NUMBER		DATED		ACTUAL EFFECTIVE DATE	
ECHHO		THREE		ECHHO3.ECHHO		TWO		10/12/2017			
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
RW09 (AER)*	324410.92N/1171204.43W*	N							*DISPL THLD (1000.0 FT)		
4000 MSL				VA	105.99		AT/ABOVE 4000		400-1 WITH MINIMUM CLIMB OF 610 FT/NM TO 1900 OR STANDARD WITH MINIMUM CLIMB OF 823 TO 1900		
BAUCA	325136.76N/1171538.05W	Y	FB	DF					LEFT TURN		
ECHHO	325801.44N/1172223.40W	Y	FB	TF	318.40	8.56					
RW27 (AER)*	324352.94N/1171050.27W*	N							*DISPL THLD (1810.0 FT)		
520 MSL				VA	286.00		AT/ABOVE 520		CG 500 FT/NM TO 4000		
LANDN	324737.02N/1171812.59W	Y	FB	DF					RIGHT TURN		
ECHHO	325801.44N/1172223.40W	Y	FB	TF	341.30	10.97					
ECHHO	325801.44N/1172223.40W	Y		IF					ECHHO3.IKAYE		
GOFUR	331029.72N/1173526.14W	Y	FB	TF	318.69	16.59	AT/ABOVE 15000				
MMOTO	331610.43N/1174142.94W	Y	FB	TF	317.12	7.74					
TEDEY	333215.25N/1175714.80W	Y	FB	TF	321.06	20.66					
GEEGN	335352.27N/1184508.16W	Y	FB	TF	298.60	45.40					
IKAYE	340835.00N/1190037.00W	Y	FB	TF	318.85	19.53					
ECHHO	325801.44N/1172223.40W	Y		IF					ECHHO3.SLI		
GOFUR	331029.72N/1173526.14W	Y	FB	TF	318.69	16.59	AT/ABOVE 15000				
MMOTO	331610.43N/1174142.94W	Y	FB	TF	317.12	7.74					
SLI VORTAC	334659.87N/1180317.12W	Y	FB	TF	329.73	35.66					

