

**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.

DP NAME		NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	ACTUAL EFFECTIVE DATE
TJANO (RNAV)		TWO	TJANO2.TJANO	ONE	01/25/2024	
TYPE:	OBSTACLE	COPTER	SID	SPECIAL	RNAV	
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

DP ROUTE DESCRIPTION:

SAN ANTONIO INTL (SAT):

TAKEOFF RWY 4: CLIMB ON HEADING 036.78 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 13L: CLIMB ON HEADING 127.63 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 13R: CLIMB ON HEADING 127.60 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 22: CLIMB ON HEADING 216.79 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 31L: CLIMB ON HEADING 307.61 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 31R: CLIMB ON HEADING 307.64 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...

...ON TRACK 205.38 TO TJANO, THEN ON TRANSITION. MAINTAIN 5000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE

BOERNE STAGE FLD (5C1):

TAKEOFF RWY 17: CLIMB ON HEADING 169.01 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 35: CLIMB ON HEADING 349.01 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...

CASTROVILLE MUNI (CVB):

TAKEOFF RWY 16: CLIMB ON HEADING 156.98 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 34: CLIMB ON HEADING 336.98 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...

KELLY FLD (KSKF):

TAKEOFF RWY 16: CLIMB ON HEADING 158.15 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 34: CLIMB ON HEADING 338.15 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...

NEW BRAUNFELS NTL (BAZ):

TAKEOFF RWY 13: CLIMB ON HEADING 127.73 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 17: CLIMB ON HEADING 172.71 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 31: CLIMB ON HEADING 307.74 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 35: CLIMB ON HEADING 352.71 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...

PLEASANTON MUNI (PEZ):

TAKEOFF RWY 16: CLIMB ON HEADING 157.10 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 34: CLIMB ON HEADING 337.10 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...

RANDOLPH AFB (RND):

TAKEOFF RWY 15L: CLIMB ON HEADING 145.03 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 15R: CLIMB ON HEADING 145.03 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 33L: CLIMB ON HEADING 325.03 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 33R: CLIMB ON HEADING 325.04 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...

STINSON MUNI (SSF):

TAKEOFF RWY 10: CLIMB ON HEADING 099.53 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 14: CLIMB ON HEADING 142.36 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 228: CLIMB ON HEADING 279.53 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...
TAKEOFF RWY 32: CLIMB ON HEADING 322.36 OR AS ASSIGNED BY ATC, FOR VECTORS TO LVACA, THENCE...



...ON TRACK 205.38 TO TJANO, THEN ON TRANSITION. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

TRANSITION NAME	TRANSITION COMPUTER CODE	FROM FIX/NAVAID	TO FIX/NAVAID	COURSE	DISTANCE	MEA	MOCA	CROSSING ALTITUDE/FIXES
KAHAN	TJANO2.KAHAN	TJANO	TEEPY	TRACK 205.88	37.00	10000	2500	
		TEEPY	KAHAN	TRACK 187.04	30.85	10000	1900	
ZANNI	TJANO2.ZANNI	TJANO	TEEPY	TRACK 205.88	37.00	10000	2500	
		TEEPY	ZANNI	TRACK 196.21	30.00	10000	2300	

PBN REQUIREMENT NOTES:

RNAV 1 - DME/DME IRU OR GPS.

EQUIPMENT REQUIREMENT NOTES:

RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT.
RADAR REQUIRED.

PROCEDURAL DATA NOTES:

TAKEOFF MINIMUMS:

SAN ANTONIO INTL (SAT):
RWY 4, 13L, 13R, 22, 31L, 31R: STANDARD

BOERNE STAGE FLD (5C1):
RWY 17: STANDARD WITH MINIMUM CLIMB OF 210 FT/NM TO 2200.
RWY 35: STANDARD WITH MINIMUM CLIMB OF 250 FT/NM TO 3800.

CASTROVILLE MUNI (CVB):
RWY 16, 34: STANDARD

KELLY FLD (SKF):
RWY 16, 34: STANDARD

NEW BRAUNFELS NTL (BAZ):
RWY 13, 17, 31, 35: STANDARD

PLEASANTON MUNI (PEZ):
RWY 16, 34: STANDARD

RANDOLPH AFB (RND):
RWY 15L, 15R, 33L, 33R: STANDARD

STINSON MUNI (SSF):
RWY 10: STANDARD WITH MINIMUM CLIMB OF 230 FT/NM TO 1900
RWY 14: STANDARD WITH MINIMUM CLIMB OF 220 FT/NM TO 1900
RWY 28: 300-1 5/8 OR STANDARD WITH MINIMUM CLIMB OF 230 FT/NM TO 900, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT/NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1800 FEET PRIOR TO DER.
RWY 32: STANDARD WITH MINIMUM CLIMB OF 230 FT/NM TO 1700



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TJANO (RNAV)	TWO	TJANO2.TJANO	ONE	01/25/2024	

TAKEOFF OBSTACLES NOTES:

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

CONTROLLING OBSTACLES:

BOERNE STAGE FIELD (5C1):

RWY 17: 1942 AAO 294015.00N/0984345.00W (CLIMB GRADIENT, CLIMB-TO ALTITUDE)

RWY 35: 3048 MSL TOWER (48-005697) 295027.00N/0984933.00W (CLIMB GRADIENT, CLIMB-TO ALTITUDE).

STINSON MUNI (SSF):

RWY 10, 14: 1546 MSL TOWER (48-004668) 291938.75N/0982117.63W (CLIMB GRADIENT, CLIMB GRADIENT TERMINATION ALTITUDE).

RWY 28: 802 MSL TANK (48-169742) 292048.87N/0983016.57W (CEILING), (CLIMB GRADIENT), (CLIMB GRADIENT TERMINATION ALTITUDE), (VISIBILITY).

RWY 32: 1379 MSL TOWER (48-001577) 292509.00N/0982901.00W (CLIMB GRADIENT, CLIMB-TO ALTITUDE).

MSA:

SAT: MSA FROM SAT, 4100

5C1: MSA FROM 5C1, 4100

CVB: MSA FROM CVB, 4100

SKF: MSA FROM SKF, 4100

BAZ: MSA FROM BAZ, 3100

PEZ: MSA FROM PEZ, 3100

RND: MSA FROM RND, 3200

SSF: MSA FROM SSF, 4100

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

CHART: TOP ALTITUDE: SAT: 5000; 5C1, CVB, SKF, BAZ, PEZ, RND, SSF: ASSIGNED BY ATC.

AIRPORT MV: SAT (P) 4E/2020, 5C1 5E/2010, CVB 4E/2020, SKF 4E/2020, BAZ 8E/1975, PEZ 6E/2000, RND 5E/2010, SSF E3/2025

CHART: MINIMUM CROSSING ALTITUDE AT LVACA-5000.

DME/DME ASSESSMENT: SAT (RNP 2.0).

AIRPORTS SERVED:

<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
SAT	SAN ANTONIO	TX
5C1	SAN ANTONIO	TX
CVB	CASTROVILLE	TX
SKF	SAN ANTONIO	TX
BAZ	NEW BRAUNFELS	TX
PEZ	PLEASANTON	TX
RND	UNIVERSAL CITY	TX
SSF	SAN ANTONIO	TX

COMMUNICATIONS:

SAN ANTONIO INTL (SAT): CHART: ATIS, GND CON, CLNC DEL, ATCT

BOERNE STAGE FIELD (5C1): CHART: ATIS, CLNC DEL



CASTROVILLE MUNI (CVB): CHART: ATIS, CLNC DEL
KELLY FLD (SKF): CHART: ATIS, GND CON, ATCT
NEW BRAUNFELS NTL (BAZ): CHART: ATIS, ATCT, GND CON, CLNC DEL
PLEASANTON MUNI (PEZ): CHART: CLNC DEL
RANDOLPH AFB (RND): CHART: ATIS, ATCT, GND CON, CLNC DEL
STINSON MUNI (SSF): CHART: ATIS, GND CON, CLNC DEL, ATCT

FIXES AND/OR NAVAIDS:

REMARKS:
ENVIRONMENTAL REVIEW UNDER ORDER 1050.1 (LATEST EDITION) AND THE NOISE SCREENING HAVE BEEN ACCOMPLISHED.
VEGETATION HEIGHT: 75FT - BASED ON SAT AND FPT.
MEA - 10000 BASED ON DME/DME COVERAGE FROM ESV'S AND ATC REQUEST.

FLIGHT INSPECTED BY	SIGNATURE	OFFICE	DATE	
DEVELOPED BY	SIGNATURE	OFFICE	DATE	
RICHARD CAMPBELL	<i>Digitally signed by</i> RICHARD E CAMPBELL Feb 13, 2025	AJV - A423	01/24/2025	
APPROVED BY	SIGNATURE	OFFICE	DATE	TITLE
ALLAN WILL		AJV - A423		MANAGER

REQUIRED EFFECTIVE DATE
ROUTINE

COORDINATED WITH:

☒A4A☒ALPA☒AOPA☒APA☐HAI☒NBAA☒OTHER:ZHU, SAT APP CON, SAT ATCT, AMGR, STATE AVIATION DIRECTOR

- CHANGES - REASONS:
1. DP DEPARTURE ROUTE DESCRIPTION: ADDED EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE - IAW 8260.46J, FIGURE E-1.
 2. SSF RUNWAY CHANGED FROM 9/27 TO 10/28 - SSF MAG VAR UPDATED TO 3.0E
 3. SSF RUNWAY HEADINGS CHANGED - RWY 10: FROM 094.53 TO 099.53, RWY 14: FROM 137.36 TO 142.36, RWY 28: FROM 274.53 TO 279.53, RWY 32: FROM 317.36 TO 322.36 - MAG VAR UPDATE.
 4. PBN REQUIREMENTS: CHANGED FROM RNAV 1 - GPS TO RNAV 1 - DME/DME/IRU OR GPS - DME SCREENS AND APPROVED ESVS PROVIDE DME/DEME/IRU SOLUTIONS.
 5. EQUIPMENT REQUIREMENT NOTES: CHANGED FROM RADAR REQUIRED TO RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT AND RADAR REQUIRED - DME SCREENS AND APPROVED ESVS PROVIDE DME/DEME/IRU SOLUTIONS.
 6. ADDITIONAL FLIGHT DATA: MAG VAR CHANGED FOR SSF FROM 8E/1980 TO 03E/2025.
 7. ADDITIONAL FLIGHT DATA: CHANGED DME ASSESSMENT FROM UNSAT TO SAT (RNP 1.0).
 8. ALL LOCATION IDENTIFIERS REMOVED K'S FROM BEGINNING OF IDENTIFIER.
 9. COMMUNICATIONS: ADDED BOERNE STAGE FIELD (5C1) AND CASTROVILLE MUNI (CVB).
 10. REMARKS: ADDED VEGETATION HEIGHT.



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

<u>DP NAME</u>		<u>NUMBER</u>		<u>DP COMPUTER CODE</u>		<u>SUPERSEDED NUMBER</u>		<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
TJANO (RNAV)		TWO		TJANO2.TJANO		ONE		01/25/2024	
<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>
LVACA	290629.34N/0984059.65W	Y	-	IF	-	-	AT/ABOVE 5000		
TJANO	284900.57N/0985209.93W	Y	FB	TF	209.38	20.00			
TJANO	284900.57N/0985209.93W	Y	-	IF	-	-			TJANO2.KAHAN
TEEPY	281649.01N/0991302.73W	Y	FB	TF	209.88	37.00			
KAHAN	274627.24N/0991942.15W	Y	FB	TF	191.04	30.85			
TJANO	284900.57N/0985209.93W	Y	-	IF	-	-			TJANO2.ZANNI
TEEPY	281649.01N/0991302.73W	Y	FB	TF	209.88	37.00			
ZANNI	274834.76N/0992443.95W	Y	FB	TF	200.21	30.00			

