

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)
TITLE 14 CFR PART 97.37**

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.

AIRPORT ID	CITY	STATE	AMDT NO	ACTUAL EFFECTIVE DATE
KSSF	SAN ANTONIO	TX	3	31 OCTOBER 2024

TAKEOFF MINIMUMS:

RWY 14, 32: STANDARD.

RWY 9: STANDARD WITH MINIMUM CLIMB OF 230 FT/NM TO 1900, OR 1000-3 FOR VCOA.

RWY 27: 300-1 5/8 OR STANDARD WITH MINIMUM CLIMB OF 225 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.

TEXTUAL DEPARTURE PROCEDURES:

RWY 14: CLIMB ON HEADING 137.36 TO 1200 BEFORE TURNING LEFT.

RWY 32: CLIMB ON HEADING 317.37 TO 1500 BEFORE TURNING RIGHT.

VISUAL CLIMB OVER AIRPORT:

RWY 9: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS STINSON MUNI AIRPORT AT OR ABOVE 1400 BEFORE PROCEEDING ON COURSE.

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 9: TREES BEGINNING 75 FT FROM DER, 399 FT LEFT OF CENTERLINE, UP TO 38 FT AGL/597 FT MSL. TREES, VEHICLES ON ROAD, POLES, BUILDING BEGINNING 246 FT FROM DER, 247 FT LEFT OF CENTERLINE, UP TO 48 FT AGL/601 FT MSL. TREES, POLES BEGINNING 832 FT FROM DER, 486 FT LEFT OF CENTERLINE, UP TO 607 FT MSL. TREE 1349 FT FROM DER, 660 FT RIGHT OF CENTERLINE, 74 FT AGL/604 FT MSL. TREE 1546 FT FROM DER, 880 FT RIGHT OF CENTERLINE, 80 FT AGL/606 FT MSL. TOWER 5133 FT FROM DER, 696 FT LEFT OF CENTERLINE, 148 FT AGL/702 FT MSL.

NOTE: RWY 14: TREE, VEHICLE ON ROAD BEGINNING 9 FT FROM DER, 159 FT RIGHT OF CENTERLINE, UP TO 577 FT MSL. VEHICLE ON ROAD 36 FT FROM DER, 397 FT LEFT OF CENTERLINE, 559 FT MSL. TREES, VEHICLES ON ROAD, FENCE BEGINNING 64 FT FROM DER, ON CENTERLINE, UP TO 55 FT AGL/586 FT MSL. VEHICLE ON ROAD 173 FT FROM DER, 87 FT LEFT OF CENTERLINE, 561 FT MSL. TREES, VEHICLES ON ROAD BEGINNING 189 FT FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 25 FT AGL/572 FT MSL. TREES BEGINNING 255 FT FROM DER, 1 FT RIGHT OF CENTERLINE, UP TO 596 FT MSL. TREES, VEHICLE ON ROAD BEGINNING 334 FT FROM DER, 34 FT LEFT OF CENTERLINE, UP TO 35 FT AGL/574 FT MSL. TREES BEGINNING 356 FT FROM DER, 54 FT LEFT OF CENTERLINE, UP TO 38 FT AGL/575 FT MSL. TREE 363 FT FROM DER, 164 FT LEFT OF CENTERLINE, 40 FT AGL/578 FT MSL. TREES BEGINNING 366 FT FROM DER, 39 FT LEFT OF CENTERLINE, UP TO 43 FT AGL/579 FT MSL. TREES BEGINNING 383 FT FROM DER, 56 FT LEFT OF CENTERLINE, UP TO 45 FT AGL/581 FT MSL. TREES BEGINNING 416 FT FROM DER, 16 FT LEFT OF CENTERLINE, UP TO 584 FT MSL. TREES BEGINNING 457 FT FROM DER, 10 FT LEFT OF CENTERLINE, UP TO 587 FT MSL. TREES, POLES, BUILDINGS BEGINNING 539 FT FROM DER, ON AND LEFT OF CENTERLINE, UP TO 598 FT MSL. TREES BEGINNING 697 FT FROM DER, ON AND RIGHT OF CENTERLINE, UP TO 39 FT AGL/598 FT MSL. TREES, POLE BEGINNING 740 FT FROM DER, 13 FT RIGHT OF CENTERLINE, UP TO 601 FT MSL. TREES, POLE BEGINNING 746 FT FROM DER, 10 FT LEFT OF CENTERLINE, UP TO 605 FT MSL. TREES, POLES BEGINNING 828 FT FROM DER, 17 FT LEFT OF CENTERLINE, UP TO 607 FT MSL. TREES, POLES, SOLAR PANELS BEGINNING 857 FT FROM DER, 4 FT RIGHT OF CENTERLINE, UP TO 48 FT AGL/604 FT MSL. TREES BEGINNING 941 FT FROM DER, 12 FT LEFT OF CENTERLINE, UP TO 610 FT MSL. TREES BEGINNING 1048 FT FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 77 FT AGL/615 FT MSL. TREES BEGINNING 1111 FT FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 80 FT AGL/619 FT MSL. POLE, TREES BEGINNING 1312 FT FROM DER, 9 FT RIGHT OF CENTERLINE, UP TO 607 FT MSL. POLE 1461 FT FROM DER, 807 FT RIGHT OF CENTERLINE, 617 FT MSL. POLES, TREES BEGINNING 1479 FT FROM DER, 41 FT RIGHT OF CENTERLINE, UP TO 619 FT MSL. POLES, TREES BEGINNING 1589 FT FROM DER, 33 FT RIGHT OF CENTERLINE, UP TO 620 FT MSL. TRANSMISSION LINE 4205 FT FROM DER, 133 FT RIGHT OF CENTERLINE, 119 FT AGL/663 FT MSL.

NOTE: RWY 27: VEHICLE ON ROAD 40 FT FROM DER, 303 FT LEFT OF CENTERLINE, 589 FT MSL. TREES, VEHICLES ON ROAD, POLE BEGINNING 40 FT FROM DER, 16 FT LEFT OF CENTERLINE, UP TO 606 FT MSL. FENCE 41 FT FROM DER, 30 FT RIGHT OF CENTERLINE, 8 FT AGL/584 FT MSL. VEHICLE ON ROAD 110 FT FROM DER, 58 FT RIGHT OF CENTERLINE, 593 FT MSL. VEHICLE ON ROAD 122 FT FROM DER, 109 FT RIGHT OF CENTERLINE, 594 FT MSL. VEHICLE ON ROAD 129 FT FROM DER, 143 FT RIGHT OF CENTERLINE, 595 FT MSL. POLES, VEHICLES ON ROAD, TREES BEGINNING 142 FT FROM DER, 4 FT RIGHT OF CENTERLINE, UP TO 37 FT AGL/619 FT MSL. POLES, TREES BEGINNING 492 FT FROM DER, 5 FT LEFT OF CENTERLINE, UP TO 613 FT MSL. POLES, TREES, BUILDINGS BEGINNING 619 FT FROM DER, 32 FT LEFT OF CENTERLINE, UP TO 44 FT AGL/616 FT MSL. POLES, TREES, BUILDING BEGINNING 702 FT FROM DER, 27 FT RIGHT OF CENTERLINE, UP TO 41 FT AGL/620 FT MSL. POLE 857 FT FROM DER, 175 FT RIGHT OF CENTERLINE, 39 FT AGL/621 FT MSL. POLES, BUILDINGS, TREES BEGINNING 867 FT FROM DER, 11 FT RIGHT OF CENTERLINE, UP TO 624 FT MSL. POLES, TREES BEGINNING 925 FT FROM DER, 61 FT LEFT OF CENTERLINE, UP TO 41 FT AGL/618 FT MSL. POLES, BUILDINGS, TREES BEGINNING 1025 FT FROM DER, 57 FT RIGHT OF CENTERLINE, UP TO 627 FT MSL. TREE 1077 FT FROM DER, 159 FT LEFT OF CENTERLINE, 41 FT AGL/619 FT MSL. TREES, BUILDINGS, POLES BEGINNING 1078 FT FROM DER, ON CENTERLINE, UP TO 641 FT MSL. TREES, POLE BEGINNING 1096 FT FROM DER, 100 FT LEFT OF CENTERLINE, UP TO 42 FT AGL/622 FT MSL. TREES, POLE BEGINNING 1104 FT FROM DER, 111 FT LEFT OF CENTERLINE, UP TO 45 FT AGL/624 FT MSL. TREE 1132 FT FROM DER, 89 FT LEFT OF CENTERLINE, 49 FT AGL/629 FT MSL. TREES BEGINNING 1147 FT FROM DER, 121 FT LEFT OF CENTERLINE, UP TO 55 FT AGL/634 FT MSL. TREES, POLES, BUILDING BEGINNING 1150 FT FROM DER, 13 FT LEFT OF CENTERLINE, UP TO 58 FT AGL/639 FT MSL. TREES, POLES BEGINNING 1460 FT FROM DER, 4 FT RIGHT OF CENTERLINE, UP TO 649 FT MSL. TREES, POLE BEGINNING 1886 FT FROM DER, 219 FT RIGHT OF CENTERLINE, UP TO 654 FT MSL. TREES BEGINNING 2027 FT FROM DER, 125 FT RIGHT OF CENTERLINE, UP TO 655 FT MSL. TREES BEGINNING 2325 FT FROM DER, 135 FT RIGHT OF CENTERLINE, UP TO 656 FT MSL. TREES BEGINNING 2358 FT FROM DER, 132 FT LEFT OF CENTERLINE, UP TO 65 FT AGL/649 FT MSL. TREE 3569 FT FROM DER, 1381 FT RIGHT OF CENTERLINE, 668 FT MSL. TANK 1.3 NM FROM DER, 1333 FT RIGHT OF CENTERLINE, 177 FT AGL/802 FT MSL.

NOTE: RWY 32: FENCE BEGINNING 18 FT FROM DER, 19 FT LEFT OF CENTERLINE, UP TO 8 FT AGL/578 FT MSL. FENCE BEGINNING 34 FT FROM DER, 5 FT RIGHT OF CENTERLINE, UP TO 7 FT AGL/578 FT MSL. POLE, VEHICLES ON ROAD BEGINNING 44 FT FROM DER, 48 FT LEFT OF

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CENTERLINE, UP TO 35 FT AGL/605 FT MSL. VEHICLES ON ROAD BEGINNING 55 FT FROM DER, ON AND RIGHT OF CENTERLINE, UP TO 586 FT MSL. POLE, FENCE, TREES, VEHICLE ON ROAD BEGINNING 65 FT FROM DER, 25 FT LEFT OF CENTERLINE, UP TO 606 FT MSL. TREES, VEHICLES ON ROAD, FENCE, SIGN, POLE BEGINNING 98 FT FROM DER, 18 FT RIGHT OF CENTERLINE, UP TO 43 FT AGL/610 FT MSL. TREES, VEHICLES ON ROAD BEGINNING 181 FT FROM DER, 75 FT LEFT OF CENTERLINE, UP TO 610 FT MSL. TREES, VEHICLES ON ROAD BEGINNING 236 FT FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 619 FT MSL. TREES, VEHICLES ON ROAD BEGINNING 311 FT FROM DER, 19 FT RIGHT OF CENTERLINE, UP TO 615 FT MSL. TREE, VEHICLE ON ROAD BEGINNING 432 FT FROM DER, 226 FT LEFT OF CENTERLINE, UP TO 625 FT MSL. TREE 529 FT FROM DER, 409 FT LEFT OF CENTERLINE, 628 FT MSL. TREES BEGINNING 578 FT FROM DER, ON AND LEFT OF CENTERLINE, UP TO 630 FT MSL. TREES BEGINNING 581 FT FROM DER, 73 FT RIGHT OF CENTERLINE, UP TO 46 FT AGL/618 FT MSL. TREES BEGINNING 619 FT FROM DER, 4 FT RIGHT OF CENTERLINE, UP TO 46 FT AGL/619 FT MSL. TREES BEGINNING 741 FT FROM DER, 49 FT RIGHT OF CENTERLINE, UP TO 46 FT AGL/620 FT MSL. TREES BEGINNING 791 FT FROM DER, 13 FT RIGHT OF CENTERLINE, UP TO 50 FT AGL/622 FT MSL. TREES BEGINNING 893 FT FROM DER, 24 FT RIGHT OF CENTERLINE, UP TO 631 FT MSL. TREES BEGINNING 1078 FT FROM DER, ON AND RIGHT OF CENTERLINE, UP TO 635 FT MSL. TREES BEGINNING 1470 FT FROM DER, 7 FT LEFT OF CENTERLINE, UP TO 637 FT MSL. TREES BEGINNING 1569 FT FROM DER, 37 FT RIGHT OF CENTERLINE, UP TO 65 FT AGL/639 FT MSL. TREES BEGINNING 1591 FT FROM DER, 14 FT RIGHT OF CENTERLINE, UP TO 68 FT AGL/642 FT MSL. TREES BEGINNING 1603 FT FROM DER, 33 FT LEFT OF CENTERLINE, UP TO 646 FT MSL. POLE 2097 FT FROM DER, 504 FT LEFT OF CENTERLINE, 648 FT MSL. POLES, TREES BEGINNING 2164 FT FROM DER, 219 FT LEFT OF CENTERLINE, UP TO 649 FT MSL. POLES, TREE BEGINNING 2305 FT FROM DER, 260 FT LEFT OF CENTERLINE, UP TO 663 FT MSL. POLES BEGINNING 2439 FT FROM DER, 618 FT LEFT OF CENTERLINE, UP TO 75 FT AGL/668 FT MSL. ANTENNA, TOWER BEGINNING 3887 FT FROM DER, 1295 FT LEFT OF CENTERLINE, UP TO 676 FT MSL.

CONTROLLING OBSTACLES:

RWY 9: 1546 FT MSL TOWER 291938.75N/0982117.63W (CLIMB GRADIENT) (CLIMB-TO ALTITUDE).
RWY 27: 802 FT MSL TANK 292048.87N/0983016.57W (CLIMB GRADIENT) (CLIMB-TO ALTITUDE) (CEILING) (REDUCED TAKEOFF) (VISIBILITY).
OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 14: 1546 FT MSL TOWER 291938.75N/0982117.63W, RWY 32: 1379 FT MSL TOWER 292509.00N/0982901.00W.
VISUAL CLIMB AREA OBSTACLE: 948 FT MSL TOWER 292303.73N/0982719.21W.
OBSTACLE OUTSIDE VISUAL CLIMB AREA MANDATING VCOA CLIMB TO ALTITUDE: 1379 FT MSL TOWER 292509.00N/0982901.00W.

REMARKS:

100 FT VEGETATION USED.

FLIGHT INSPECTED BY
BRIAN HARRELSON

Digitally signed by
CASIMIR L TABAKA
Apr 29, 2024

OFFICE
FPO
DATE
04/25/2024

DEVELOPED BY
JOHN BORDY (JON NEIDIGH)

Digitally signed by
ERIC N SUSKI
Apr 18, 2024

OFFICE
AJV-A33
DATE
12/07/2023

APPROVED BY
JOHN BORDY

Digitally signed by
ERIC N SUSKI
Apr 18, 2024

OFFICE
AJV-A33
DATE
09/05/2024
TITLE
MANAGER

REQUIRED EFFECTIVE DATE:

CONCURRENT WITH KSAT/KSSF ALAMO FOUR SID.

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒

OTHER: ZHU, SAT APP CON, SAT ATCT, AMGR

CHANGES - REASONS:

1. RWY 9 TAKEOFF MINIMUMS CLIMB GRADIENT INCREASED FROM 225 TO 230 FT/NM - UPDATED TO COMPLY WITH CURRENT CRITERIA
2. RWY 9 VCOA VISIBILITY MINIMUMS INCREASED FROM 2 1/2 TO 3 SM - NEW OBSTACLE SURVEY DATA
3. RWY 27 TAKEOFF MINIMUMS VISIBILITY DECREASED FROM 1 3/4 TO 1 5/8 SM, CLIMB GRADIENT INCREASED FROM 221 TO 225 FT/NM, REDUCED TAKEOFF RUNWAY LENGTH INCREASED FROM 1700 TO 1800 FT PRIOR TO DER - NEW OBSTACLE SURVEY DATA
4. VISUAL CLIMB OVER AIRPORT ADDED "OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE" - 8260.46J APPENDIX D, SECTION 1.2.G.(2)
5. NUMEROUS UPDATES TO TAKEOFF OBSTACLE NOTES - NEW OBSTACLE SURVEY DATA
6. CONTROLLING OBSTACLE RWY 27 CHANGED FROM 799 MSL TANK 292048.97N/0983016.50W TO 802 FT MSL TANK 292048.87N/0983016.57W - NEW OBSTACLE SURVEY DATA
7. RWY 14 AND RWY 32 CONTROLLING OBSTACLE MOVED TO "OBSTACLES MANDATING ODP ROUTE DEVELOPMENT" - 8260.46J APPENDIX D, SECTION 1.2.I.(3)
8. VISUAL CLIMB AREA OBSTACLE CHANGED FROM 940 MSL TOWER 292304.00N/0982719.00W TO 948 FT MSL TOWER 292303.73N/0982719.21W - NEW OBSTACLE SURVEY DATA
9. ADDED OBSTACLE OUTSIDE VISUAL CLIMB AREA MANDATING VCOA CLIMB TO ALTITUDE: 1379 FT MSL TOWER 292509.00N/0982901.00W - 8260.46J APPENDIX D, SECTION 1.2.I.(4)

