

**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
KSAN	SAN DIEGO	CA	9A	16 MAY 2024

TAKEOFF MINIMUMS:

RWY 9: 400-1 3/4 WITH MINIMUM CLIMB OF 290 FT/NM TO 900.
RWY 27: 400-2 1/2 OR STANDARD WITH MINIMUM CLIMB OF 369 FT/NM TO 500.

TEXTUAL DEPARTURE PROCEDURES:

RWY 9: CLIMB ON HEADING 094.99 TO 900 THEN CLIMBING LEFT TURN DIRECT MZB VORTAC, THENCE...
RWY 27: CLIMB ON HEADING 275.01 TO 900, THEN CLIMBING RIGHT TURN DIRECT MZB VORTAC, THENCE...

...AIRCRAFT DEPARTING MZB VORTAC R-180 CW R-360 CLIMB ON COURSE. ALL OTHERS CLIMB IN MZB VORTAC HOLDING PATTERN (HOLD W, RT, 075 INBOUND) TO CROSS MZB VORTAC AT OR ABOVE 2300 BEFORE PROCEEDING ON COURSE.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 9: TERRAIN 13 FT FROM DER, 91 FT LEFT OF CENTERLINE, 17 FT MSL.
FENCE 14 FT FROM DER, 269 FT LEFT OF CENTERLINE, 14 FT AGL/35 FT MSL.
POLE, BUILDING BEGINNING 21 FT FROM DER, 415 FT RIGHT OF CENTERLINE, UP TO 35 FT AGL/50 FT MSL.
POLES, FENCE, TREE, LIGHT POLES, TRAVERSE WAY BEGINNING 32 FT FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 33 FT AGL/55 FT MSL.
TREES, BUILDINGS, FENCE, TRAVERSE WAY, POLES BEGINNING 74 FT FROM DER, 7 FT RIGHT OF CENTERLINE, UP TO 40 FT AGL/54 FT MSL.
SIGNS, TRAVERSE WAY, TREES, POLES, FENCE, BUILDINGS BEGINNING 268 FT FROM DER, ON AND LEFT OF CENTERLINE, UP TO 57 FT AGL/80 FT MSL.
TREES, TRAVERSE WAY, BUILDINGS, POLES, SIGN BEGINNING 388 FT FROM DER, 10 FT RIGHT OF CENTERLINE, UP TO 46 FT AGL/61 FT MSL.
POLES, SIGNS, BUILDINGS, TREES, TRAVERSE WAY, FENCE BEGINNING 524 FT FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 47 FT AGL/82 FT MSL.
BUILDING, TRAVERSE WAY, POLES, SIGN, TREE BEGINNING 660 FT FROM DER, 26 FT LEFT OF CENTERLINE, UP TO 40 FT AGL/86 FT MSL.
TREES, BUILDINGS, TRAVERSE WAY BEGINNING 684 FT FROM DER, ON CENTERLINE, UP TO 54 FT AGL/71 FT MSL.
TREES, POLES, TRAVERSE WAY BEGINNING 722 FT FROM DER, 77 FT LEFT OF CENTERLINE, UP TO 53 FT AGL/96 FT MSL.
TREES, TRAVERSE WAY, BUILDINGS, POLES, SIGNS, FENCE BEGINNING 779 FT FROM DER, 5 FT RIGHT OF CENTERLINE, UP TO 80 FT AGL/98 FT MSL.
POLES, TREE, BUILDINGS BEGINNING 816 FT FROM DER, 69 FT LEFT OF CENTERLINE, UP TO 107 FT MSL.
TREES, POLES, TOWER, BUILDINGS, TRAVERSE WAY, SIGNS, FENCE BEGINNING 869 FT FROM DER, 5 FT LEFT OF CENTERLINE, UP TO 129 FT MSL.
ELECTRICAL SYSTEM, TREES, FENCE, BUILDINGS BEGINNING 1394 FT FROM DER, 9 FT LEFT OF CENTERLINE, UP TO 44 FT AGL/138 FT MSL.
TREES, FENCE, SIGN, BUILDINGS, TRAVERSE WAY, POLES BEGINNING 1555 FT FROM DER, 7 FT LEFT OF CENTERLINE, UP TO 149 FT MSL.
BUILDINGS, POLE, TREES, FENCE, SIGN BEGINNING 1558 FT FROM DER, 5 FT RIGHT OF CENTERLINE, UP TO 99 FT AGL/135 FT MSL.
CRANE, TREES, BUILDINGS, POLES, FENCE, TRAVERSE WAY, SIGNS BEGINNING 1628 FT FROM DER, ON CENTERLINE, UP TO 166 FT MSL.
TREE 1708 FT FROM DER, 771 FT LEFT OF CENTERLINE, 154 FT MSL.
TREES, TRAVERSE WAY, SIGN, BUILDINGS, FENCE, POLE BEGINNING 1714 FT FROM DER, 20 FT LEFT OF CENTERLINE, UP TO 180 FT MSL.
TREES, TRAVERSE WAY, BUILDING, FENCE, POLES, TRANSMISSION LINE, ELECTRICAL SYSTEM BEGINNING 1904 FT FROM DER, 11 FT LEFT OF CENTERLINE, UP TO 196 FT MSL.
TREES, FENCE, BUILDINGS, POLES BEGINNING 2133 FT FROM DER, 5 FT LEFT OF CENTERLINE, UP TO 204 FT MSL.
TREES, POLES, BUILDINGS, FENCE BEGINNING 2314 FT FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 231 FT MSL.
TREES, POLES, FENCE, BUILDINGS, TRANSMISSION LINE, ELECTRICAL SYSTEM, TRAVERSE WAY BEGINNING 2577 FT FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 281 FT MSL.
TREES, FENCE, POLES, BUILDING BEGINNING 2673 FT FROM DER, 46 FT RIGHT OF CENTERLINE, UP TO 181 FT MSL.
TREES, SIGNS, BUILDINGS, POLES, FENCE, TRAVERSE WAY BEGINNING 2723 FT FROM DER, ON AND RIGHT OF CENTERLINE, UP TO 187 FT MSL.
POLES, TREES, SIGN, FENCE, BUILDINGS BEGINNING 2959 FT FROM DER, 6 FT RIGHT OF CENTERLINE, UP TO 43 FT AGL/188 FT MSL.
BUILDINGS, POLES, FENCE, TREES, TRAVERSE WAY BEGINNING 3055 FT FROM DER, 14 FT RIGHT OF CENTERLINE, UP TO 198 FT MSL.
BUILDINGS, TREES, FENCE BEGINNING 3186 FT FROM DER, 22 FT RIGHT OF CENTERLINE, UP TO 212 FT MSL.
TREES, BUILDINGS, FENCE, TRANSMISSION LINE, POLES, TRAVERSE WAY BEGINNING 3212 FT FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 286 FT MSL.
TRANSMISSION LINES, BUILDINGS, TREES, FENCE, POLES, TRAVERSE WAY BEGINNING 3233 FT FROM DER, 6 FT RIGHT OF CENTERLINE, UP TO 54 FT AGL/218 FT MSL.
TREES, SIGN, POLES, FENCE, BUILDINGS, TRANSMISSION LINE, TRAVERSE WAY BEGINNING 3439 FT FROM DER, 4 FT LEFT OF CENTERLINE, UP TO 292 FT MSL.
TREES, FENCE, POLES, BUILDINGS, TRAVERSE WAY BEGINNING 3550 FT FROM DER, 4 FT LEFT OF CENTERLINE, UP TO 297 FT MSL.
TREES, POLES, BUILDINGS, FENCE BEGINNING 3634 FT FROM DER, 43 FT RIGHT OF CENTERLINE, UP TO 220 FT MSL.
BUILDINGS, FENCE, TREES BEGINNING 3731 FT FROM DER, 67 FT RIGHT OF CENTERLINE, UP TO 222 FT MSL.
BUILDINGS, TREES, FENCE, POLE BEGINNING 3757 FT FROM DER, 3 FT RIGHT OF CENTERLINE, UP TO 48 FT AGL/224 FT MSL.
TREES, POLES, BUILDINGS, FENCE, TRAVERSE WAY, TRANSMISSION LINE, SIGN BEGINNING 3765 FT FROM DER, 4 FT LEFT OF CENTERLINE, UP TO 299 FT MSL.
TREES, BUILDINGS, POLES BEGINNING 3841 FT FROM DER, 3 FT RIGHT OF CENTERLINE, UP TO 230 FT MSL.
~~TREES, POLE BEGINNING 3915 FT FROM DER, 94 FT RIGHT OF CENTERLINE, UP TO 235 FT MSL.~~



TREES, BUILDINGS, POLES, SIGN, TRAVERSE WAY, TRANSMISSION LINE BEGINNING 3919 FT FROM DER, 9 FT RIGHT OF CENTERLINE, UP TO 237 FT MSL.
 TREES, BUILDINGS BEGINNING 4060 FT FROM DER, 5 FT RIGHT OF CENTERLINE, UP TO 253 FT MSL.
 BUILDINGS, TRAVERSE WAY, FENCE, POLES, TREES BEGINNING 4070 FT FROM DER, 3 FT LEFT OF CENTERLINE, UP TO 303 FT MSL.
 TREES, BUILDINGS, POLES, FENCE, TRAVERSE WAY BEGINNING 4071 FT FROM DER, 2 FT RIGHT OF CENTERLINE, UP TO 264 FT MSL.
 BUILDINGS, POLES, FENCE, TRAVERSE WAY, TREES, SIGN BEGINNING 4190 FT FROM DER, 7 FT LEFT OF CENTERLINE, UP TO 310 FT MSL.
 BUILDINGS, TREES, FENCE, POLES BEGINNING 4376 FT FROM DER, 239 FT LEFT OF CENTERLINE, UP TO 117 FT AGL/364 FT MSL.
 BUILDINGS, TREES, FENCE, TRAVERSE WAY, SIGN, POLES, TERRAIN BEGINNING 4410 FT FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 128 FT AGL/389 FT MSL.
 BUILDINGS, TREE, POLE BEGINNING 4414 FT FROM DER, 114 FT RIGHT OF CENTERLINE, UP TO 293 FT MSL.
 BUILDINGS, TREES, FENCE, POLES, TRAVERSE WAY, TRANSMISSION LINE, TOWER BEGINNING 4433 FT FROM DER, ON CENTERLINE, UP TO 165 FT AGL/296 FT MSL.
 TREES, SIGN, BUILDINGS, POLES, TRAVERSE WAY BEGINNING 5159 FT FROM DER, 3 FT RIGHT OF CENTERLINE, UP TO 105 FT AGL/300 FT MSL.
 BUILDINGS BEGINNING 6023 FT FROM DER, 1007 FT RIGHT OF CENTERLINE, UP TO 224 FT AGL/370 FT MSL.
 BUILDINGS BEGINNING 1 NM FROM DER, 1542 FT RIGHT OF CENTERLINE, UP TO 287 FT AGL/401 FT MSL.
 TREES, POLES, BUILDINGS BEGINNING 1.1 NM FROM DER, 159 FT LEFT OF CENTERLINE, UP TO 398 FT MSL.
 TREES, BUILDINGS BEGINNING 1.3 NM FROM DER, 532 FT LEFT OF CENTERLINE, UP TO 405 FT MSL.
 TREES, TANK, SMOKESTACK BEGINNING 1.4 NM FROM DER, 1066 FT LEFT OF CENTERLINE, UP TO 351 FT MSL.

NOTE: RWY 27: TRAVERSE WAY, BUILDING BEGINNING 8 FT FROM DER, 317 FT RIGHT OF CENTERLINE, UP TO 28 FT MSL.
 POLES, TRAVERSE WAY BEGINNING 191 FT FROM DER, 321 FT RIGHT OF CENTERLINE, UP TO 17 FT AGL/29 FT MSL.
 NAVAID 284 FT FROM DER, 317 FT LEFT OF CENTERLINE, 19 FT AGL/28 FT MSL.
 FENCE 580 FT FROM DER, 547 FT LEFT OF CENTERLINE, 20 FT AGL/29 FT MSL.
 TREE 599 FT FROM DER, 590 FT RIGHT OF CENTERLINE, 19 FT AGL/31 FT MSL.
 TREES, BUILDING BEGINNING 614 FT FROM DER, 108 FT RIGHT OF CENTERLINE, UP TO 37 FT AGL/47 FT MSL.
 TREES BEGINNING 812 FT FROM DER, 381 FT LEFT OF CENTERLINE, UP TO 43 FT MSL.
 TREE 888 FT FROM DER, 446 FT RIGHT OF CENTERLINE, 49 FT MSL.
 TREE 915 FT FROM DER, 614 FT LEFT OF CENTERLINE, 44 FT MSL.
 TREE 945 FT FROM DER, 717 FT LEFT OF CENTERLINE, 52 FT MSL.
 TREES BEGINNING 1019 FT FROM DER, 623 FT RIGHT OF CENTERLINE, UP TO 74 FT MSL.
 TREE 2225 FT FROM DER, 1030 FT RIGHT OF CENTERLINE, 91 FT MSL.
 TREE 2317 FT FROM DER, 925 FT RIGHT OF CENTERLINE, 95 FT MSL.
 TREES BEGINNING 2320 FT FROM DER, 354 FT RIGHT OF CENTERLINE, UP TO 113 FT MSL.
 TREE 2456 FT FROM DER, 873 FT LEFT OF CENTERLINE, 81 FT MSL.
 POLE, TREES BEGINNING 2515 FT FROM DER, 79 FT LEFT OF CENTERLINE, UP TO 103 FT AGL/118 FT MSL.
 TREES BEGINNING 2957 FT FROM DER, 897 FT RIGHT OF CENTERLINE, UP TO 134 FT MSL.
 TREES, POLE BEGINNING 3118 FT FROM DER, 258 FT RIGHT OF CENTERLINE, UP TO 149 FT MSL.
 TREES, POLES, TOWER BEGINNING 3495 FT FROM DER, 14 FT RIGHT OF CENTERLINE, UP TO 175 FT MSL.
 TREES BEGINNING 3669 FT FROM DER, 124 FT LEFT OF CENTERLINE, UP TO 128 FT MSL.
 TREES BEGINNING 3686 FT FROM DER, 91 FT LEFT OF CENTERLINE, UP TO 135 FT MSL.
 TREE 3728 FT FROM DER, 247 FT LEFT OF CENTERLINE, 136 FT MSL.
 TREES BEGINNING 3746 FT FROM DER, 190 FT LEFT OF CENTERLINE, UP TO 138 FT MSL.
 TREES, POLES BEGINNING 4112 FT FROM DER, 5 FT RIGHT OF CENTERLINE, UP TO 178 FT MSL.
 TREES BEGINNING 4248 FT FROM DER, 25 FT LEFT OF CENTERLINE, UP TO 75 FT AGL/150 FT MSL.
 TREES, POLES, BUILDINGS BEGINNING 4440 FT FROM DER, 4 FT RIGHT OF CENTERLINE, UP TO 111 FT AGL/199 FT MSL.
 TREES, POLES BEGINNING 4516 FT FROM DER, 346 FT LEFT OF CENTERLINE, UP TO 153 FT MSL.
 TREES, BUILDINGS, POLES BEGINNING 4631 FT FROM DER, 28 FT LEFT OF CENTERLINE, UP TO 167 FT MSL.
 TREES, POLES, BUILDINGS, FENCE BEGINNING 4773 FT FROM DER, 24 FT LEFT OF CENTERLINE, UP TO 179 FT MSL.
 TREES, POLES, BUILDINGS, FENCE BEGINNING 4965 FT FROM DER, 186 FT LEFT OF CENTERLINE, UP TO 184 FT MSL.
 TREES, BUILDINGS, POLE BEGINNING 5016 FT FROM DER, 34 FT LEFT OF CENTERLINE, UP TO 192 FT MSL.
 TREES, BUILDINGS, POLES, FENCE, ELECTRICAL SYSTEM, TRANSMISSION LINE, TRAVERSE WAY BEGINNING 5048 FT FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 237 FT MSL.
 TREES, BUILDINGS BEGINNING 5593 FT FROM DER, 57 FT RIGHT OF CENTERLINE, UP TO 209 FT MSL.
 TREES, POLE, BUILDINGS BEGINNING 5628 FT FROM DER, 17 FT RIGHT OF CENTERLINE, UP TO 211 FT MSL.
 TREES, BUILDINGS, POLES BEGINNING 5693 FT FROM DER, ON CENTERLINE, UP TO 227 FT MSL.
 TREES, BUILDINGS, POLES BEGINNING 5948 FT FROM DER, 76 FT RIGHT OF CENTERLINE, UP TO 228 FT MSL.
 TREES, POLES BEGINNING 6043 FT FROM DER, 148 FT LEFT OF CENTERLINE, UP TO 259 FT MSL.
 TREES, POLES, BUILDINGS, FENCE BEGINNING 6055 FT FROM DER, 15 FT RIGHT OF CENTERLINE, UP TO 230 FT MSL.
 TREES, BUILDINGS, POLES, UTILITY BUILDING, FENCE, ELECTRICAL SYSTEM, TRANSMISSION LINE BEGINNING 1 NM FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 260 FT MSL.
 TREES, POLES, TRANSMISSION LINE, BUILDING BEGINNING 1 NM FROM DER, 37 FT RIGHT OF CENTERLINE, UP TO 248 FT MSL.
 TREES, POLE, BUILDING BEGINNING 1.1 NM FROM DER, 17 FT RIGHT OF CENTERLINE, UP TO 250 FT MSL.
 TREES BEGINNING 1.4 NM FROM DER, 1957 FT LEFT OF CENTERLINE, UP TO 292 FT MSL.
 TREES, POLE BEGINNING 1.5 NM FROM DER, 2076 FT LEFT OF CENTERLINE, UP TO 302 FT MSL.
 TREES BEGINNING 1.7 NM FROM DER, 2448 FT LEFT OF CENTERLINE, UP TO 309 FT MSL.
 TREES BEGINNING 1.9 NM FROM DER, 2863 FT LEFT OF CENTERLINE, UP TO 333 FT MSL.

CONTROLLING OBSTACLES:

RWY 9: 836 FT MSL TOWER 324349.00N/1170505.00W (CLIMB GRADIENT) (CLIMB-TO ALTITUDE), 351 FT MSL TREE 324350.75N/1170843.12W (VISIBILITY), 405 FT MSL TREE 324347.03N/1170850.61W (CEILING).

RWY 27: 237 FT MSL TREE 324413.65N/1171317.16W (CLIMB-TO ALTITUDE), 175 FT MSL TREE 324432.17N/1171251.97W (CLIMB GRADIENT), 327 FT MSL TREE 324412.49N/1171443.24W (VISIBILITY), 333 FT MSL TREE 324413.30N/1171437.43W (CEILING).



AIRPORT ID
KSAN

CITY
SAN DIEGO

STATE
CA

AMDT NO
9A

ACTUAL EFFECTIVE DATE
16 MAY 2024

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 9, 27: 6699 FT MSL AAO 325648.00N/1163624.00W.

REMARKS:

PER FPT USED 100 FT VEGETATION.

VCOA NOT DEVELOPED DUE TO HIGH TRAFFIC VOLUME AT AIRPORT.

LETTER OF APPROVAL ON FILE FOR CEILING AND VISIBILITY REQUIREMENT AND 290 FEET PER NM CLIMB GRADIENT IN LIEU OF 986 FEET PER NM CLIMB GRADIENT.

Digitally signed by

FLIGHT INSPECTED BY

ALLAN WILL

OFFICE

DATE

TROY E DEVINE

Mar 29, 2024

FPO

03/27/2024

DEVELOPED BY

ALLAN WILL (DANIEL C JOHNSEN)

Digitally signed by

ALLAN WILL

OFFICE

AJV-A423

DATE

11/30/2023

Mar 29, 2024

APPROVED BY

ALLAN WILL

Digitally signed by

ALLAN WILL

OFFICE

AJV-A423

DATE

05/16/2024

TITLE
MANAGER

Mar 29, 2024

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

A4A ALPA AOPA APA HAI NBAA

OTHER: ZLA, SOCAL APP, SAN APCH, AMGR

CHANGES - REASONS:

1. CHANGED RWY 27 TAKEOFF MINIMUMS CG FROM "353 FT/NM" TO "369 FT/NM" -- NEW CONTROLLING OBSTACLE.
2. UPDATED TAKEOFF OBSTACLE NOTES -- NEW SURVEY DATA.
3. CHANGED RWY 9 CEILING OBSTACLE FROM "403 FT MSL ANTENNA ON LIGHTED BUILDING 324349.95N/1170934.93W" TO "405 FT MSL TREE 324347.03N/1170850.61W" -- NEW SURVEY DATA.
4. CHANGED RWY 9 VISIBILITY OBSTACLE FROM "374 FT MSL LIGHTED STACK 324333.99N/1170846.87W" TO "351 FT MSL TREE 324350.75N/1170843.12W" -- NEW SURVEY DATA.
5. CHANGED RWY 27 CG OBSTACLE FROM "169 FT MSL TREE 324432.18W/1171251.95W" TO "175 FT MSL TREE 324432.17N/1171251.97W" -- NEW SURVEY DATA.
6. CHANGED RWY 27 CTA OBSTACLE FROM "339 FT MSL TREE 324422.95N/1171419.48W" TO "237 FT MSL TREE 324413.65N/1171317.16W" -- NEW SURVEY DATA.
7. CHANGED RWY 27 CEILING AND VISIBILITY OBSTACLE FROM "379 FT MSL TREE 324411.85N/1171433.22W" TO "333 FT MSL TREE 324413.30N/1171437.43W (CEILING)" AND "327 FT MSL TREE 324412.49N/1171443.24W (VISIBILITY)" -- NEW SURVEY DATA.
8. CHANGED OBSTACLE MANDATING ROUTE DEVELOPMENT FROM "6712 FT MSL AAO 325649.30N/1163610.60W" TO "6699 FT MSL AAO 325648.00N/1163624.00W" -- NEW TERRAIN EVALUATION IN TARGETS 7.2.

