

U.S. DEPARTMENT OF TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)

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City, State	Airport	Effective Date	Amdt. No.
SAN FRANCISCO, CA	SAN FRANCISCO INTL	24 JULY 2014	9

TAKEOFF MINIMUMS:

RWY 1L, 1R, 10L, 10R: STANDARD.
RWY 19L, 19R: STANDARD WITH MINIMUM CLIMB OF 575 FT PER NM TO 2000.
RWY 28L, 28R: STANDARD WITH MINIMUM CLIMB OF 351 FT PER NM TO 1300.

TEXTUAL DEPARTURE PROCEDURES:

RWY 1L, 1R: CLIMB HEADING 013.80 TO 2000, THENCE ...
RWY 10L, 10R: CLIMBING LEFT TURN HEADING 053.00 TO INTERCEPT SFO R-090 EASTBOUND TO 2300, THENCE...
RWY 19L, 19R: CLIMBING LEFT TURN HEADING 053.00 TO INTERCEPT SFO R-090 EASTBOUND TO 2600, THENCE...
RWY 28R: CLIMB HEADING 283.81 TO 2000, THENCE...
RWY 28L: CLIMB HEADING 283.82 TO 2000, THENCE...

...CONTINUE CLIMB ON COURSE.

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 1L, SHIPS BEGINNING 1646 FT FROM DER, RIGHT AND LEFT OF CENTERLINE, UP TO 150 FT AGL/150 FT MSL.

NOTE: RWY 1R, SHIPS BEGINNING 1173 FT FROM DER, RIGHT AND LEFT OF CENTERLINE, UP TO 150 FT AGL/150 FT MSL.

NOTE: RWY 10L, SIGN 62 FT FROM DER, 300 FT LEFT OF CENTERLINE, 4 FT AGL/15 FT MSL. BUILDING AND ROD ON BUILDING BEGINNING 257 FT FROM DER, 560 FT LEFT OF CENTERLINE, UP TO 14 FT AGL/24 FT MSL.

NOTE: RWY 19L, MULTIPLE POLES BEGINNING 548 FT FROM DER, 46 FT LEFT OF CENTERLINE, UP TO 20 FT AGL/48 FT MSL. MULTIPLE POLES AND SIGNS BEGINNING 652 FT FROM DER, 337 FT RIGHT OF CENTERLINE, UP TO 20 FT AGL/38 FT MSL. MULTIPLE BUILDINGS, TRANSMISSION TOWERS, POLES, TREES, SIGNS, ELECTRICAL SYSTEM BEGINNING 937 FT FROM DER, 11 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/127 FT MSL. MULTIPLE BUILDINGS, TRANSMISSION TOWERS, POLES, TREES, SIGNS, ELECTRICAL SYSTEM BEGINNING 887 FT FROM DER, 61 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/128 FT MSL. MULTIPLE BUILDINGS 3831 FT FROM DER, 1138 FT LEFT OF CENTERLINE, UP TO 105 FT AGL/127 FT MSL. MULTIPLE BUILDINGS AND TREES BEGINNING 3831 FT FROM DER, 74 FT RIGHT OF CENTERLINE UP TO 100 FT AGL/167 FT MSL.

NOTE: RWY 19R, MULTIPLE POLES, TREES, ELECTRICAL SYSTEM BEGINNING 454 FT FROM DER, 82 FT RIGHT OF CENTERLINE, UP TO 40 FT AGL/60 FT MSL. MULTIPLE TRANSMISSION TOWERS, TREES BEGINNING 918 FT FROM DER, 7 FT LEFT OF CENTERLINE, UP TO 80 FT AGL/96 FT MSL. POLES AND ELECTRICAL SYSTEM 1188 FT FROM DER, 1 FT RIGHT OF CENTERLINE, 44 FT AGL/50 FT MSL. MULTIPLE TRANSMISSION TOWERS, TREES BEGINNING 1617 FT FROM DER, 16 FT RIGHT OF CENTERLINE, UP TO 80 FT AGL/85 FT MSL.

NOTE: RWY 28L, SIGN 19 FT FROM DER, 500 FT RIGHT OF CENTERLINE, 5 FT AGL/9 FT MSL. OBSTRUCTION LIGHTS ON DME BEGINNING 277 FT FROM DER, 162 FT LEFT OF CENTERLINE, UP TO 16 FT AGL/26 FT MSL. OBSTRUCTION LIGHT ON LOCALIZER BEGINNING 219 FT FROM DER, ON CENTERLINE, UP TO 10 FT AGL/17 FT MSL. MULTIPLE POLES, ELECTRICAL SYSTEM BEGINNING 824 FT FROM DER, 300 FT LEFT OF CENTERLINE, UP TO 40 FT AGL/56 FT MSL. MULTIPLE BUILDINGS, TRANSMISSION TOWERS, TANK AND POLE BEGINNING 1305 FT FROM DER, 370 FT LEFT OF CENTERLINE, UP TO 95 FT AGL/103 FT MSL.

NOTE: RWY 28R, MULTIPLE SIGNS, BEGINNING 23 FT FROM DER, 140 FT RIGHT OF CENTERLINE, UP TO 5 FT AGL/10 FT MSL. TERRAIN BEGINNING 58 FT FROM DER, 146 FT RIGHT OF CENTERLINE, UP TO 10 FT MSL. SIGN, 63 FT FROM DER, 250 FT LEFT OF CENTERLINE 5 FT AGL/8 FT MSL. TERRAIN BEGINNING 130 FT FROM DER, 235 FT LEFT OF CENTERLINE, UP TO 10 FT MSL. ANTENNA ON BUILDING, OBSTRUCTION LIGHT ON DME, TREE, BEGINNING 556 FT FROM DER, 268 FT RIGHT OF CENTERLINE, UP TO 35 FT AGL/43 FT MSL. MULTIPLE POLES BEGINNING 918 FT FROM DER, 598 FT LEFT OF CENTERLINE, UP TO 22 FT AGL/35 FT MSL. MULTIPLE BUILDINGS, TREES BEGINNING 1467 FT FROM DER, 683 FT RIGHT OF CENTERLINE, UP TO 60 FT AGL/68 FT MSL. MULTIPLE BUILDINGS, TRANSMISSION TOWERS, TREES AND ELECTRICAL SYSTEM BEGINNING 1826 FT FROM DER, 123 FT LEFT OF CENTERLINE, UP TO 95 FT AGL/103 FT MSL.

CONTROLLING OBSTACLES:

RWY 19L: 719 FT MSL TREE 373502.00N/1222400.00W, 2144 FT MSL AAO 373134.70N/1222523.40W.
RWY 19R: 719 FT MSL TREE 373502.00N/1222400.00W, 2144 FT MSL AAO 373134.70N/1222523.40W.
RWY 28L: 899 FT MSL TREE 373815.50N/1222748.11W. 949 FT MSL AAO 373906.44N/1222821.43W.
RWY 28R: 674 FT MSL TREE 373813.00N/1222644.00W, 949 FT MSL AAO 373906.44N/1222821.43W.

OBSTACLE MANDATING ODP ROUTE DEVELOPMENT:

RWY 1L, 1R, 10L, 10R, 19L, 19R, 28L, 28R: 2144 FT MSL AAO 373134 70N/1222523.40W, 1374 FT MSL AAO 374041.90N/1222524 25W, 1811 FT MSL TOWER 374520.00N/1222710.00W.

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REMARKS:

VCOA NOT ESTABLISHED AT ATC REQUEST DUE TO TRAFFIC CONGESTION.

FLIGHT INSPECTED BY:

Tom Molokie

5/1/14

REQUIRED EFFECTIVE DATE:

ROUTINE

DEVELOPED BY:

DAVID DANNER

AJV-354

1/24/14

APPROVED BY:

LARRY H. STROUT

AJV-354

MAY 01 2014

COORDINATED WITH:

ATA, ALPA, AOPA, NBAA, AMGR, JOSHUA APP CON, ZLA

CHANGES:

1. RWY 19L/R MINIMUM CLIMB GRADIENT RAISED FROM 565 TO 575.
2. UPDATED TAKEOFF OBSTACLE NOTES.

REASONS:

- 1/2. NEW AIRPORT DATA.