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

Bearings, headings, courses, tracks and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated.

Cellings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

 City, State
 Airport
 Effective Date
 Amdt. No.

 DENVER, CO
 CENTENNIAL
 11/15/2012
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## **TAKEOFF MINIMUMS:**

RWY 10, 28, 35L, 35R: STANDARD.

RWY 17R: STANDARD WITH MINIMUM CLIMB OF 370 FT PER NM TO 6800.

RWY 17L: STANDARD WITH MINIMUM CLIMB OF 255 FT PER NM TO 6800.

#### **TEXTUAL DEPARTURE PROCEDURES:**

RWY 10: WHEN DEPARTING ON COURSES BETWEEN 162 CCW TO 333 FROM DEPARTURE END OF RUNWAY CLIMB HEADING 102.95 TO 6600 BEFORE TURNING RIGHT. ALL OTHER COURSES: CLIMBING LEFT TURN TO INTERCEPT DEN VOR/DME R-194 TO DEN VOR/DME, THENCE...

RWY 17L/R: CLIMB ON HEADING BETWEEN 350 CW TO 162 FROM DEPARTURE END OF RUNWAY. ALL OTHER COURSES: CLIMBING LEFT TURN TO INTERCEPT DEN VOR/DME R-199 TO DEN VOR/DME. THENCE...

RWY 28: CLIMB ON HEADING BETWEEN 333 CW TO 103 FROM DEPARTURE END OF RUNWAY. ALL OTHER COURSES: CLIMBING RIGHT TURN TO INTERCEPT DEN VOR/DME R-210 TO DEN VOR/DME, THENCE...

RWY 35L/R: CLIMB ON A HEADING BETWEEN 333 CW 162 FROM DEPARTURE END OF RUNWAY. ALL OTHER COURSES: CLIMB HEADING 349.95 TO INTERCEPT DEN VOR/DME R-211 TO DEN VOR/DME, THENCE...

....CLIMB IN DEN VOR/DME HOLDING PATTERN (HOLD S, RIGHT TURNS, 343.00 INBOUND) TO 16500 BEFORE PROCEEDING ON COURSE.

#### **TAKEOFF OBSTACLE NOTES:**

NOTE: RWY 10: TERRAIN BEGINNING 369 FT FROM DER 30 FT RIGHT OF CENTERLINE, UP TO 5854 FT MSL. FENCES BEGINNING 1211 FT FROM DER, 233 FT RIGHT OF CENTERLINE, UP TO 8 FT AGL/5841 FT MSL. MULTIPLE BUSHES BEGINNING 1378 FT FROM DER, 284 FT RIGHT OF CENTERLINE, UP TO 6 FT AGL/5840 FT MSL. MULTIPLE ROADS WITH VEHICLES BEGINNING 198 FT FROM DER, 404 FT LEFT OF CENTERLINE, UP TO 15 FT AGL/5835 FT MSL. TERRAIN 1358 FT FROM DER, 253 FT LEFT OF CENTERLINE, UP TO 5830 FT MSL. NOTE: RWY 17L: MULTIPLE TREES BEGINNING 2968 FT FROM DER, 761 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/5976 FT MSL. NOTE: RWY 17R: TERRAIN 181 FT FROM DER 496 FT RIGHT OF CENTERLINE, 5887 FT MSL. FENCE 538 FT FROM DER, 196 FT RIGHT OF CENTERLINE, 8 FT AGL/5886 FT MSL. MULTIPLE TREES BEGINNING 562 FT FROM DER, 61 FT RIGHT OF CENTERLINE, UP TO 16 FT AGL/5976 FT MSL. MULTIPLE LIGHT POLES BEGINNING 2362 FT FROM DER, 256 FT RIGHT OF CENTERLINE, UP TO 30 FT AGL/5942 FT MSL. OBSTRUCTION LIGHT ON BUILDING 3282 FT FROM DER, 842 FT RIGHT OF CENTERLINE, 90 FT AGL/6021 FT MSL. NOTE: RWY 28: TERRAIN BEGINNING 89 FT FROM DER, 183 FT LEFT OF CENTERLINE, 15 FT AGL/5832 FT MSL. MULTIPLE TREES BEGINNING 1640 FT FROM DER, 731 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/5959 FT MSL.

#### **CONTROLLING OBSTACLES:**

NOTE: RWY 17L: 6559 FT MSL AAO 392953.93N/1045044.26.

NOTE: RWY 17R: 6021 FT MSL OBS LT ON BLDG 393302.52N/1045119.43W, 6559 FT MSL AAO 392953.93N/1045044.26.

**OBSTACLES MANDATING ROUTE DEVELOPMENT:** 

RWY 10 - 6520 FT MSL TOWER 393024.00N/1044604.00W, 13591 FT MSL AAO 395019.70N/1054255.40W, 14470 FT MSL AAO 393807.40N/1054902.40W, 12995 FT MSL AAO 384926.53N/1050138.90W.

RWY 17L/R - 13591 FT MSL AAO 395019.70N/1054255.40W, 14470 FT MSL AAO 393807.40N/1054902.40W, 12995 FT MSL AAO 384926.53N/1050138.90W.

RWY 28 - 13591 FT MSL AAO 395019.70N/1054255.40W, 14470 FT MSL AAO 393807.40N/1054902.40W, 14310 FT MSL AAO 385020.60N/1050238.00W.

RWY 35L/R - 13591 FT MSL AAO 395019.70N/1054255.40W, 14470 FT MSL AAO 393807.40N/1054902.40W, 14310 FT MSL AAO 385020.60N/1050238.00W.

### **REMARKS:**

CLIMB IN HOLD TO 16500 PRIOR TO WESTBOUND (ALL OTHER COURSES) PER FLIGHT CHECK RECOMMENDATION DUE TO MOUNTAIN WAVE TURBULENCE AS INDICATED ON FLIGHT INSPECTION REPORT.

SPOT ELEVATION 14225 AT 401511.20N-1053651.40W LOCATED BEYOND 46 NM WAS TAKEN INTO CONSIDERATION WHEN DETERMINING THE 330 HEADING IN THE DEPARTURE PROCEDURE INSTRUCTIONS.