# 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. Ceilings 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.
COLORADO SPRINGS, CO	CITY OF COLORADO SPRINGS MUNI	05/26/2016	12

## TAKEOFF MINIMUMS:

RWY 17L, 17R STANDARD RWY 13, STANDARD WITH MINIMUM CLIMB OF 250 FT PER NM TO 6400, OR ALTERNATIVELY WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 2000 FT PRIOR TO DER. RWY 31, STANDARD WITH MINIMUM CLIMB OF 220FT PER NM TO 7000. RWY 35L, STANDARD WITH MINIMUM CLIMB OF 250FT PER NM TO 7000. RWY 35R, STANDARD WITH MINIMUM CLIMB OF 220FT PER NM TO 7000.

# **TEXTUAL DEPARTURE PROCEDURES:**

RWY 13, 17L, 17R: CLIMBING LEFT TURN DIRECT BRK VOR/DME, THENCE ... RWY 31: CLIMB HEADING 306.09 TO 7000, THEN CLIMBING RIGHT TURN DIRECT BRK VOR/DME, THENCE ... RWY 35R: CLIMB HEADING 351.08 TO 7000, THEN CLIMBING RIGHT TURN DIRECT BRK VOR/DME, THENCE ... RWY 35L: CLIMBING RIGHT TURN DIRECT BRK VOR/DME, THENCE ...

... CONTINUE CLIMB IN HOLDING PATTERN (HOLD NW, LT, 159.00 INBOUND) TO CROSS BRK VOR/DME AT OR ABOVE MEA/MCA FOR ROUTE OF FLIGHT.

# VISUAL CLIMB OVER AIRPORT:

### TAKEOFF OBSTACLE NOTES:

NOTE: RWY 13, RADAR ANTENNA 4979 FT FROM DER, 1640 FT LEFT OF CENTERLINE, 107 FT AGL/6292 FT MSL. NOTE: RWY 17L, RWY EDGE LIGHT (REIL) 25 FT FROM DER, 115 FT LEFT AND RIGHT OF CENTERLINE, 3 FT AGL/6104 FT MSL. NOTE: RWY 35L, RWY EDGE LIGHT (REIL) 39 FT FROM DER, 115 FT RIGHT OF CENTERLINE, 2 FT AGL/6178 FT MSL. TREE 5898 FT FROM DER, 1773 FT RIGHT OF CENTERLINE, 50 FT AGL/6338 FT MSL.

#### **CONTROLLING OBSTACLES:**

RWY 31: 6779 FT MSL AAO 385208.44N/1044558.75W RWY 35L: 6779 FT MSL AAO 385235.29N/1044141.20W RWY 13: 6292 FT MSL ASR 384802.09N/1044042.44W RWY 35R: 6779 FT MSL AAO 385235.29N/1044141.20W

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 13, 17L, 17R, 31, 35L, 35R: 14310 FT MSL AAO 385020.60N/1050238.00W RWY 35R: 6779 FT MSL AAO 385159.09N/1043924.87W RWY 31: 6959 FT MSL AAO 385323.62N/1044337.59W

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# **REMARKS:**

30FT VEGETATION UTILIZED PER FPT. VCOA NOT ESTABLISHED PER FPT AND ATC. RWY 13 ROUTE OVERFLIES R-2602, HOWEVER AIRCRAFT ARE ABOVE RESTRICTED AIRSPACE.

# FLIGHT INSPECTED BY:

PENDING

# **DEVELOPED BY:**

		Digitally signed by		
ROBERT GRIM	AJV-5431	01/22/2016 <b>ROBERT GRIM</b> 05/26/2016		
APPROVED BY:		Mar 03, 2016		
		Digitally signed by		
LONNIE EVERHART	AJV-5430	ALLAN WILL		
COORDINATED WITH:		Mar 24, 2016		

AOPA, NBAA, ALPA, ATA, SDV, COS ATCT, COS APPCON, AMGR

# CHANGES:

- 1- BLACK FOREST VOR/DME HOLDING PATTERN INBOUND COURSE CHANGED FROM 154 TO 159.
- 2. RWY 13 TAKEOFF MINIMUMS CHANGED FROM STANDARD TO STANDARD WITH MINIMUM CLIMB OF 250 FT PER NM TO 6400, OR ALTERNATIVELY WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 2000 FT PRIOR TO DER.
- 3. RWY 31 TEXTUAL DEPARTURE PROCEDURE HEADING CHANGED FROM 309.09 TO 306.09.
- 4. UPDATED LOW, CLOSE-IN OBSTACLES IN TAKEOFF OBSTACLE NOTES.
- 5. ADDED CONTROLLING OBSTACLE FOR RWY 13.
- 6. CHANGED RWY 35L CONTROLLING OBSTACLE FROM 6799 FT MSL AAO TO 6779 FT MSL AAO.

#### **REASONS:**

- 1. MAG VAR ROTATION FROM E13 TO E8.
- 2. 107 FT MSL ASR ANTENNA PENETRATES RWY 13 ICA.
- 3. RUNWAY TRUE BEARING IS 315.09 AND NO REASON TO OFFSET DEPARTURE COURSE 3 DEGREES.
- 4. OBSTACLE DATABASE UPDATE.
- 5. 107 FT MSL ASR ANTENNA PENETRATES RWY 13 ICA.
- 6. 6799 FT MSL OBSTACLE IS OUTSIDE OF THE DEPARTURE ROUTE. 6779 FT MSL OBSTACLE CAUSES CLIMB GRADIENT AND TERMINATION ALTITUDE.

## **REQUIRED EFFECTIVE DATE:**