# 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.
CUMBERLAND, MD	GREATER CUMBERLAND RGNL	31 MARCH 2016	7

## TAKEOFF MINIMUMS:

RWY 11, 29, NA - OBSTACLES.

RWY 5, 700-3 WITH MINIMUM CLIMB OF 310 FT PER NM TO 3200 OR STANDARD WITH MINIMUM CLIMB OF 370 FT PER NM TO 2600 OR 2500-3 FOR VCOA.

RWY 23, 1000-3 WITH MINIMUM CLIMB OF 480 FT PER NM TO 2000 OR STANDARD WITH MINIMUM CLIMB OF 925 FT PER NM TO 1900 OR 2500-3 FOR VCOA.

## **TEXTUAL DEPARTURE PROCEDURES:**

RWY 5 - CLIMB HEADING 049.06 TO 2900 BEFORE PROCEEDING ON COURSE.

RWY 23 - CLIMB HEADING 214.07 TO 3400 BEFORE PROCEEDING ON COURSE.

## VISUAL CLIMB OVER AIRPORT:

**RWY 5, 23:** OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS GREATER CUMBERLAND RGNL AIRPORT AT OR ABOVE 3100 BEFORE PROCEEDING ON COURSE.

## TAKEOFF OBSTACLE NOTES:

**NOTE RWY 5:** TREES BEGINNING 146 FT FROM DER, 388 FT LEFT OF CENTERLINE, UP TO 50 FT AGL/798 FT MSL. TREES BEGINNING 511 FT FROM DER, 466 FT RIGHT OF CENTERLINE, UP TO 48 FT AGL/821 FT MSL. TREES 2.3 NM FROM DER, 4178 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/1439 FT MSL.

**NOTE RWY 23:** NAVAID 169 FT FROM DER, 269 FT LEFT OF CENTERLINE, 22 FT AGL/732 FT MSL. TREES 53 FT FROM DER, 497 FT RIGHT OF CENTERLINE, UP TO 42 FT AGL/751 FT MSL. TREES BEGINNING 1188 FT FROM DER, 422 FT RIGHT OF CENTERLINE, UP TO 67 FT AGL/836 FT MSL. TOWER 2029 FT FROM DER, 757 FT RIGHT OF CENTERLINE, 99 FT AGL/958 FT MSL. TREES 2.4 NM FROM DER, 729 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/1679 FT MSL.

#### **CONTROLLING OBSTACLES:**

RWY 5: 1439 FT MSL TREE 393839.90N/0784238.30W (370 FT PER NM CLIMB GRADIENT, 2600 CLIMB-TO ALTITUDE, CEILING, VISIBILITY). 2559 FT MSL AAO 394328.55N/0783925.30W (310 FT PER NM CLIMB GRADIENT, 3200 CLIMB-TO ALTITUDE).

**RWY 23:** 958 FT MSL TOWER 393629.00N/0784617.00W (925 FT PER NM CLIMB GRADIENT). 1679 FT MSL TREE 393451.30N/0784759.00W (CEILING, VISIBILITY, 1900 CLIMB-TO ALTITUDE). 1679 FT MSL TREE 393437.95N/0784806.50W (480 FT PER NM CLIMB GRADIENT, 2000 CLIMB-TO ALTITUDE).

RWY 5, 23 (VCOA): 1199 FT MSL AAO 393840.60N/078410.50W (VCA). 3082 FT MSL TOWER 393449.00N/0785358.00W (DIVERSE).

#### **OBSTACLES MANDATING ODP ROUTE DEVELOPMENT:**

RWY 5 - 3293 FT MSL WINDMILL 394350.53N/0785509.32W.

RWY 23 - 3082 FT MSL TOWER 393449.00N/0785358.00W.

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## REMARKS:

1. RWY 5 CLIMB GRADIENT (370 FT PER NM) ROUNDED UP FOR PUBLICATION (COMPUTED VALUE 369 FT PER NM).

2. RWY 5 CLIMB GRADIENT (309 FT PER NM) ROUNDED UP FOR PUBLICATION (COMPUTED VALUE 310 FT PER NM).

3. RWY 23 DEPARTURE COURSE OFFSET 15 DEGREES LEFT TO AVOID TERRAIN.

4. RWY 23 CLIMB GRADIENT (480 FT PER NM) ROUNDED UP FOR PUBLICATION (COMPUTED VALUE 474 FT PER NM).

#### FLIGHT INSPECTED BY:

JORGE A MALCUN	Digitally signed by JULIE A MORGAN	10/22/2015	ROUTINE
DEVELOPED BY;	Nov 04, 2015		
<u></u>	Digitally signed by		
PETER GUIMOND	PETER R GUIMOND AJV-5413	07/20/2015	
	Jul 20, 2015		
APPROVED BY:	Digitally signed by		
ADOLFO URRUTIA	JULIE A MORGAN AJV-5410		
	Nov 04, 2015		

COORDINATED WITH:

ALPA, AOPA, NBAA, ZOB, JST APP CON, ARPT MGR

## CHANGES:

1. AMENDED RWY 5 TAKEOFF MINIMUMS FROM STANDARD WITH A MINIMUM CLIMB OF 320 FT PER NM TO 3200 OR 2400-3 FOR CLIMB IN VISUAL CONDITIONS TO READ 700-3 WITH MINIMUM CLIMB OF 310 FT PER NM TO 3200 OR STANDARD WITH MINIMUM CLIMB OF 370 FT PER NM TO 2600 OR 2500-3 FOR VCOA.

2. AMENDED RWY 23 TAKEOFF MINIMUMS FROM 1200-3 WITH A MINIMUM CLIMB OF 480 FT PER NM TO 2000 OR STANDARD WITH MINIMUM CLIMB OF 929 FT PER NM TO 2400 OR 2400-3 FOR CLIMB IN VISUAL CONDITIONS TO READ 1000-3 WITH MINIMUM CLIMB OF 480 FT PER NM TO 2000 OR STANDARD WITH MINIMUM CLIMB OF 925 FT PER NM TO 1900 OR 2500-3 FOR VCOA.

3. AMENDED VCOA CLIMB-TO ALTITUDE FROM 3000 TO 3100. MOVED VCOA INSTRUCTIONS TO VISUAL CLIMB OVER AIRPORT BLOCK. 4. AMENDED RWY 5 TEXTUAL DEPARTURE PROCEDURE CLIMB TO ALTITUDE FROM 2300 TO 2400.

5. AMENDED RWY 23 TEXTUAL DEPARTURE PROCEDURE FROM CLIMBING LEFT TURN ON HEADING 140 TO INTERCEPT 177 BEARING FROM CBE NDB TO 3000 BEFORE PROCEEDING ON COURSE TO READ CLIMB HEADING 214.07 TO 3400 BEFORE PROCEEDING ON COURSE.

6. UPDATED CONTROLLING OBSTACLES AND OBSTACLES MANDATING ODP ROUTE DEVELOPMENT.

7. AMENDED TAKEOFF OBSTACLE NOTES FOR RWY 5 AND 23.

#### **REASONS:**

1. NEW OBSTACLE STUDY USING UPDATED OBSTACLE DATA AND FORMATTED IN ACCORDANCE WITH CURRENT DOCUMENTATION POLICY.

2. RECOMPUTED USING 15 DEGREE OFFSET DEPARTURE ROUTING, UPDATED OBSTACLE DATA, AND FORMATTED IN ACCORDANCE WITH CURRENT DOCUMENTATION POLICY.

3. NEW OBSTACLE STUDY. VCOA BLOCK POPULATED IN ACCORDANCE WITH CURRENT DOCUMENTATION POLICY.

4. NEW OBSTACLE STUDY.

5. CBE NDB BEING DECOMMISSIONED.

6. NEW OBSTACLE STUDY. FORMATTED IAW CURRENT DOCUMENTATION POLICY.

7. NEW OBSTACLE STUDY. GROUPED AND FORMATTED IAW CURRENT DOCUMENTATION POLICY.

07/20/2015: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 11/13/2013.

FAA FORM 15A HAS BEEN MODIFIED AND DOCUMENTATION POLICY UPDATED SINCE THIS PROCEDURE WAS ORIGINALLY DEVELOPED.

1. UPDATED DATA IN ALL BLOCKS TO CURRENT CRITERIA AND DOCUMENTATION POLICY.

2. UPDATED CHANGES AND REASONS TO REFLECT DATA DOCUMENTED ON THIS FORM COMPARED AGAINST AMDT 6.

3. UPDATED SIGNATURE BLOCKS TO CURRENT SPECIALIST AND MANAGER.

11/02/2015: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 07/20/2015.

INCREASED RWY 5 TEXTUAL CLIMB-TO ALTITUDE FROM 2400 TO 2900 PER FLIGHT INSPECTION RECOMMENDATION.

**REQUIRED EFFECTIVE DATE:**