

**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.

<b>City, State</b>	<b>Airport</b>	<b>Effective Date</b>	<b>Amdt. No.</b>
MUSCLE SHOALS, AL	NORTHWEST ALABAMA RGNL	3 APRIL 2014	1

**TAKEOFF MINIMUMS:**

**RWY 11,18,29** STANDARD

**RWY 36**, 300-1¼ OR STANDARD WITH MINIMUM CLIMB OF 239 FT PER NM TO 800, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1900 FT PRIOR TO DER.

**TEXTUAL DEPARTURE PROCEDURES:**

**RWY 18** – CLIMB HEADING 184.37 TO 1400 BEFORE PROCEEDING ON COURSE.

**TAKEOFF OBSTACLE NOTES:**

**NOTE: RWY 18**, TREE 90 FT FROM DER, 306 FT LEFT OF CENTERLINE, 23 FT AGL/568 FT MSL. TREES BEGINNING 42 FT FROM DER 325 FT RIGHT OF CENTERLINE, UP TO 98 FT AGL/617 FT MSL. POLE 1550 FT FROM DER, 151 FT LEFT OF CENTERLINE, 43 FT AGL/580 FT MSL.

**NOTE: RWY 29**, TREES BEGINNING 981 FT FROM DER, 184 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/630 FT MSL. TREES BEGINNING 2727 FT FROM DER, 322 FT LEFT OF CENTERLINE, UP TO 97 FT AGL/627 FT MSL. TWY 31 FT FROM DER, 252 FT RIGHT OF CENTERLINE, 558 FT MSL. POLE 839 FT FROM DER, 594 LEFT OF CENTERLINE, 39 FT AGL/569 FT MSL.

**NOTE: RWY 36**, TREES BEGINNING 622 FT FROM DER, 89 FT LEFT OF CENTERLINE, UP TO 105 FT AGL/621 FT MSL. TREES BEGINNING 196 FT FROM DER, 4 FT RIGHT OF CENTERLINE, UP TO 73 FT AGL/598 FT MSL. POLES BEGINNING 499 FT FROM DER, 320 FT LEFT OF CENTERLINE, UP TO 39 FT AGL/575 FT MSL. POLES BEGINNING 420 FT FROM DER, 26 FT RIGHT OF CENTERLINE, UP TO 32 FT AGL/569 FT MSL. BLDG 9 FT FROM DER, 437 FT RIGHT OF CENTERLINE, 21 FT AGL/557 FT MSL. COMM TWR 5329 FT FROM DER, 469 FT LEFT OF CENTERLINE, 161 FT AGL/698 FT MSL.

**CONTROLLING OBSTACLES:**

**RWY 36:** 698 FT MSL COMMUNICATION TWR, 344556.08N-0873700.69W.

**OBSTACLE MANDATING ODP ROUTE DEVELOPMENT:**

**RWY 18:** 1670 FT MSL TOWER, 344024.00N-0874256.00W.



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**REMARKS:**

**FLIGHT INSPECTED BY:**

Marc Himck *[Signature]* 2/22/14

**REQUIRED EFFECTIVE DATE:**

ROUTINE

**DEVELOPED BY:**

GEORGE H. TRAMMELL *[Signature]* AJV-352 8/2/2013

**APPROVED BY:**

SUE CRUMB *[Signature]* AJV-352 JAN 24 2014

**COORDINATED WITH:**

ALPA, AOPA, NBAA, ZME APP/DEP CON, MSL ATCT, AMGR

**CHANGES:**

1. CHANGED TAKEOFF MINIMUMS FOR RWY 36 FROM STANDARD, TO CEILING AND VIS OR STANDARD WITH CLIMB GRADIENT, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND NORMAL CLIMB GRADIENT WITH RWY REDUCTION.
2. CHANGED TEXTUAL DEPARTURE PROCEDURES: RWY 18 CLIMB HEADING FROM 181.36 TO 184.37.
3. UPDATED TAKEOFF OBSTACLE NOTES.
4. UPDATED FORMAT.

**REASONS:**

1. NEW CONTROLLING OBSTACLE DUE TO NEW SURVEY.
2. MAGVAR CHANGE FROM 0E TO 3W.
- 3,4. CURRENT CRITERIA.

