

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.
GREENVILLE, SC	GREENVILLE DOWNTOWN	15 OCTOBER 2015	7

**TAKEOFF MINIMUMS:**

**RWY 1, 19,** STANDARD.

**RWY 10,** 300-1 OR STANDARD WITH MINIMUM CLIMB OF 355 FT PER NM TO 1300.

**RWY 28,** 300-2 1/2 OR STANDARD WITH MINIMUM CLIMB OF 220 FT PER NM TO 1500, 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 1:** CLIMB HEADING 006.23 TO 2800 BEFORE TURNING WEST OR NORTHWEST.

**RWY 10:** CLIMB HEADING 096.33 TO 1800 BEFORE TURNING WEST OR NORTHWEST.

**RWY 19:** CLIMB HEADING 186.20 TO 1800 BEFORE TURNING NORTH.

**RWY 28:** CLIMB HEADING 276.32 TO 2300 BEFORE TURNING NORTH OR NORTHWEST.

**VISUAL CLIMB OVER AIRPORT:**

**TAKEOFF OBSTACLE NOTES:**

**NOTE: RWY 1,** SIGN 26 FT FROM DER, 125 FT LEFT OF CENTERLINE, 3 FT AGL/1049 FT MSL. BUILDING AND POLES BEGINNING 195 FT FROM DER, 374 FT RIGHT OF CENTERLINE, UP TO 48 FT AGL/1111 FT MSL. TREES BEGINNING 350 FT FROM DER, 319 FT LEFT OF CENTERLINE, UP TO 88 FT AGL/1129 FT MSL. SIGN, BUILDING, POLES, AND TREES BEGINNING 1050 FT FROM DER, 55 FT RIGHT OF CENTERLINE, UP TO 52 FT AGL/1188 FT MSL. BUILDINGS 4064 FT FROM DER, 384 FT RIGHT OF CENTERLINE, UP TO 61 FT AGL/1174 FT MSL.

**NOTE: RWY 10,** SIGN AND TREES BEGINNING 18 FT FROM DER, 48 FT RIGHT OF CENTERLINE, UP TO 31 FT AGL/1026 FT MSL. SIGN 21 FT FROM DER, 124 FT LEFT OF CENTERLINE, 3 FT AGL/1017 FT MSL. POLE AND TREES BEGINNING 9 FT FROM DER, 198 FT RIGHT OF CENTERLINE, UP TO 56 FT AGL/1057 FT MSL. TREES BEGINNING 498 FT FROM DER, 50 FT LEFT OF CENTERLINE, UP TO 51 FT AGL/1042 FT MSL. TREES BEGINNING 1821 FT FROM DER, 603 FT LEFT OF CENTERLINE, UP TO 47 FT AGL/1068 FT MSL. BUILDING AND POLE BEGINNING 3337 FT FROM DER, 539 FT RIGHT OF CENTERLINE, UP TO 105 FT AGL/1136 FT MSL. TOWER 5213 FT FROM DER, 810 FT LEFT OF CENTERLINE, 152 FT AGL/1173 FT MSL.

**NOTE: RWY 19,** SIGNS BEGINNING 11 FT FROM DER, 71 FT RIGHT OF CENTERLINE, UP TO 3 FT AGL/991 FT MSL. TREES BEGINNING 173 FT FROM DER, 492 FT RIGHT OF CENTERLINE, UP TO 45 FT AGL/1013 FT MSL. POLE AND TREES BEGINNING 276 FT FROM DER, 527 FT LEFT OF CENTERLINE, UP TO 33 FT AGL/1003 FT MSL. TREES BEGINNING 2809 FT FROM DER, 763 FT RIGHT OF CENTERLINE, UP TO 83 FT AGL/1094 FT MSL.

**NOTE: RWY 28,** SIGNS BEGINNING 13 FT FROM DER, 77 FT LEFT OF CENTERLINE, UP TO 3 FT AGL/1000 FT MSL. POLE AND TREES BEGINNING 45 FT FROM DER, 285 FT RIGHT OF CENTERLINE, UP TO 49 FT AGL/1043 FT MSL. POLES AND TREES BEGINNING 194 FT FROM DER, 251 FT LEFT OF CENTERLINE, UP TO 56 FT AGL/1021 FT MSL. TREES BEGINNING 532 FT FROM DER, 60 FT RIGHT OF CENTERLINE, UP TO 95 FT AGL/1047 FT MSL. TREES BEGINNING 850 FT FROM DER, 323 FT LEFT OF CENTERLINE, UP TO 71 FT AGL/1075 FT MSL. BUILDING 1.9 NM FROM DER, 2143 FT RIGHT OF CENTERLINE, 332 FT AGL/1316 FT MSL.

**CONTROLLING OBSTACLES:**

**RWY 10** – 1173 FT MSL TOWER 345059.00N/0821941.00W.

**RWY 28** – 1316 FT MSL BUILDING 345116.95N/0822351.37W.

**OBSTACLES MANDATING ODP ROUTE DEVELOPMENT:**

**RWY 1, 10, 19, 28** – 2539 FT MSL TOWER 345629.40N/0822440.40W.



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**REMARKS:**

1. RWY 10 CLIMB GRADIENT ROUNDED UP TO 355 FT PER NM FOR PUBLICATION (COMPUTED VALUE 353 FT PER NM).
2. RWY 28 CLIMB GRADIENT ROUNDED UP TO 220 FT PER NM FOR PUBLICATION (COMPUTED VALUE 218 FT PER NM).

**FLIGHT INSPECTED BY:**

**REQUIRED EFFECTIVE DATE:**

STEPHEN F. KOCH *Digitally signed by* FICO 07/16/2015  
**JULIE A MORGAN**  
 Jul 21, 2015

ROUTINE

**DEVELOPED BY:**

PETER GUIMOND *Digitally signed by* AJV-5413 05/27/2015  
**PETER R GUIMOND**  
 May 27, 2015

**APPROVED BY:**

ADOLFO URRUTIA *Digitally signed by* AJV-5410  
**JULIE A MORGAN**  
 Jul 21, 2015

**COORDINATED WITH:**

ALPA, AOPA, NBAA, ZTL, GSP APP CON, GMU ATCT, AMGR.

**CHANGES:**

1. INCREASED RWY 10 CLIMB GRADIENT FROM 340 FT PER NM TO 1300 TO READ 355 FT PER NM TO 1300.
2. INCREASED RWY 28 VISIBILITY VALUE FROM 2 1/4 MILES TO 2 1/2 MILES.
3. AMENDED RWY 10 TEXTUAL DP INSTRUCTIONS FROM CLIMB HEADING 096.33 TO 1600 BEFORE TURNING LEFT TO READ CLIMB HEADING 096.33 TO 1800 BEFORE TURNING WEST OR NORTHWEST.
4. AMENDED RWY 19 TEXTUAL DP INSTRUCTIONS FROM CLIMB HEADING 186.20 TO 1600 BEFORE TURNING RIGHT TO READ CLIMB HEADING 186.20 TO 1800 BEFORE TURNING NORTH.
5. AMENDED RWY 1 TEXTUAL DP INSTRUCTIONS FROM CLIMB HEADING 006.23 TO 2700 BEFORE TURNING LEFT TO READ CLIMB HEADING 006.23 TO 2800 BEFORE TURNING WEST OR NORTHWEST.
6. AMENDED RWY 28 TEXTUAL DP INSTRUCTIONS FROM CLIMB HEADING 276.32 TO 2300 BEFORE TURNING RIGHT TO READ CLIMB HEADING 276.32 TO 2300 BEFORE TURNING NORTH OR NORTHWEST.
7. AMENDED TAKEOFF OBSTACLE NOTES FOR ALL RUNWAYS.
8. DELETED 1300 FT MSL TREE FROM RWY 10 CONTROLLING OBSTACLES.
9. AMENDED RWY 28 CONTROLLING OBSTACLE FROM 1315 MSL BUILDING TO 1316 MSL BUILDING AND AMENDED LATITUDE/LONGITUDE.

**REASONS:**

1. APPLIED 5D HORIZONTAL AND VERTICAL ACCURACY ADJUSTMENT TO CONTROLLING OBSTACLE.
2. VISIBILITY RECOMPUTED FROM UPDATE LATITUDE/LONGITUDE OF CONTROLLING OBSTACLE.
- 3, 4. CONTROLLING OBSTACLE LIES IN DIVERSE "B" AREA, REFORMATTED INSTRUCTIONS ARE LESS RESTRICTIVE. CLIMB TO ALTITUDE INCREASED AFTER APPLYING 5E HORIZONTAL AND VERTICAL ACCURACY ADJUSTMENT TO CONTROLLING OBSTACLE.
- 5, 6. REPLACED TURN DIRECTION (LEFT OR RIGHT) WITH COMPASS POINTS TO STANDARDIZE WITH UPDATED RWY 10 AND RWY 19 INSTRUCTIONS. CLIMB TO ALTITUDE INCREASED AFTER APPLYING 5E HORIZONTAL AND VERTICAL ACCURACY ADJUSTMENT TO CONTROLLING OBSTACLE.
7. NEW OBSTACLE STUDY. NEW OBSTACLE SURVEY ADDED SINCE LAST AMENDMENT.
8. NEW OBSTACLE STUDY.
9. MATCH AIRNAV VALUES FOR OBSTACLE.

