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.
ORANGE, MA	ORANGE MUNI		1

TAKEOFF MINIMUMS:

RWY 1, STANDARD WITH MINIMUM CLIMB OF 325 FT PER NM TO 1800 OR 1300-2 1/2 FOR CLIMB IN VISUAL CONDITIONS.

RWY 14, 400-1 1/2 WITH MINIMUM CLIMB OF 270 FT PER NM TO 1800 OR STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1200 OR 1300-2 1/2 FOR CLIMB IN VISUAL CONDITIONS.

RWY 19, 300-1 3/4 OR STANDARD WITH MINIMUM CLIMB OF 240 FT PER NM TO 900.

RWY 32, 400-2 1/4 WITH MINIMUM CLIMB OF 265 FT PER NM TO 1700 OR STANDARD WITH MINIMUM CLIMB OF 340 FT PER NM TO 1700 OR 1300-2 1/2 FOR CLIMB IN VISUAL CONDITIONS.

TEXTUAL DEPARTURE PROCEDURES:

RWY 1 – CLIMB HEADING 015.59 TO 1800 BEFORE PROCEEDING ON COURSE. FOR CLIMB IN VISUAL CONDITIONS: CROSS ORANGE MUNI AIRPORT AT OR ABOVE 1700 MSL BEFORE PROCEEDING ON COURSE. WHEN EXECUTING VCOA, NOTIFY ATC PRIOR TO DEPARTURE.

RWY 14 – CLIMB HEADING 142.09 TO 2000 BEFORE PROCEEDING ON COURSE. FOR CLIMB IN VISUAL CONDITIONS: CROSS ORANGE MUNI AIRPORT AT OR ABOVE 1700 MSL BEFORE PROCEEDING ON COURSE. WHEN EXECUTING VCOA, NOTIFY ATC PRIOR TO DEPARTURE.

RWY 19 – CLIMB HEADING 195.59 TO 1500 BEFORE PROCEEDING ON COURSE.

RWY 32 – CLIMB HEADING 322.10 TO 1700 BEFORE PROCEEDING ON COURSE. FOR CLIMB IN VISUAL CONDITIONS: CROSS ORANGE MUNI AIRPORT AT OR ABOVE 1700 MSL BEFORE PROCEEDING ON COURSE. WHEN EXECUTING VCOA, NOTIFY ATC PRIOR TO DEPARTURE.

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 1, POLE AND TREES BEGINNING 272 FT FROM DER, 6 FT LEFT OF CENTERLINE, UP TO 92 FT AGL/624 FT MSL. TERRAIN AND TREES BEGINNING 5 FT FROM DER, 23 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/632 FT MSL.

NOTE: RWY 14, TREES BEGINNING 186 FT FROM DER, 15 FT LEFT OF CENTERLINE, UP TO 90 FT AGL/699 FT MSL. BUILDINGS AND TREES BEGINNING 48 FT FROM DER, 23 FT RIGHT OF CENTERLINE, UP TO 94 FT AGL/703 FT MSL. TOWER 5889 FT FROM DER, 1606 FT LEFT OF CENTERLINE, 88 FT AGL/926 FT MSL. TREES 1.1 NM FROM DER, 2138 FT LEFT OF CENTERLINE, UP TO 70 FT AGL/817 FT MSL.

NOTE: RWY 19, TREES BEGINNING 164 FT FROM DER, 28 FT LEFT OF CENTERLINE, UP TO 94 FT AGL/667 FT MSL. TREES BEGINNING 1130 FT FROM DER, 23 FT RIGHT OF CENTERLINE, UP TO 96 FT AGL/705 FT MSL. TREES 1.1 NM FROM DER, 1931 FT RIGHT OF CENTERLINE, UP TO 83 FT AGL/751 FT MSL. TREES 1.2 NM FROM DER, 2125 FT RIGHT OF CENTERLINE, UP TO 112 FT AGL/781 FT MSL. TREES 1.4 NM FROM DER, 1927 FT RIGHT OF CENTERLINE, UP TO 84 FT AGL/772 FT MSL.

NOTE: RWY 32, TREES BEGINNING 14 FT FROM DER, 87 FT LEFT OF CENTERLINE, UP TO 91 FT AGL/680 FT MSL. TREES BEGINNING 521 FT FROM DER, 13 FT RIGHT OF CENTERLINE, UP TO 95 FT AGL/618 FT MSL. TREES 1.2 NM FROM DER, 2366 FT LEFT OF CENTERLINE, UP TO 94 FT AGL/841 FT MSL. TREES 1.7 NM FROM DER, 3315 FT RIGHT OF CENTERLINE, UP TO 61 FT AGL/906 FT MSL.

CONTROLLING OBSTACLES:

RWY 1: 1400 FT MSL AAO 423756.25N/0721842.40W. 1459 FT MSL AAO 423818.45N/0721831.20W.

RWY 14: 926 FT MSL TOWER 423342.40N/0721530.90W. 1479 FT MSL AAO 423225.40N/0721100.50W. 817 FT MSL TREES 423342.27N/0721518.88W.

RWY 19: 751 FT MSL TREES 423237.33N/0721751.76W. 781 FT MSL TREES 423227.18N/0721754.49W. 772 FT MSL TREES 423216.70N/0721752.00W.

RWY 32: 841 FT MSL TREES 423456.84N/0721912.14W. 1184 FT MSL AAO 423654.84N/0722045.60W. 1361 FT MSL AAO 423652.20N/0722236.40W. 906 FT MSL TREES 423602.88N/0721904.41W.

RWY 1, 14, 32 (VCOA): 1359 FT MSL TREES 423317.80N/0722103.70W. 1676 FT MSL AAO 423240.30N/0721018.00W.

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT:
RWY 1 – 1883 FT MSL AAO 424128.90N/0722118.15W.

RWY 14 – 1676 FT MSL AAO 423240.30N/0721018.00W.

(CONTINUED ON NEXT PAGE)

QUALITY CHECKED

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OBSTACLES MANDATING ODP ROUTE DEVELOPMENT (CONTINUED):
RWY 19 – 1351 FT MSL AAO 422943.00N/0721949.00W.

RWY 32 – 1883 FT MSL AAO 424128.90N/0722118.15W.

REMARKS:

PROCEDURE DEVELOPED USING PENDING AVNIS RUNWAY DATA (DATED 6/17/2011).

QUALITY CHECKED

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ORANGE, MA	ORANGE MUNI		1

FLIGHT INSPECTED BY:

REQUIRED EFFECTIVE DATE:

ROUTINE

DEVELOPED BY:

PETER R. GUIMOND AJV-352 11/25/2011

APPROVED BY:

DARRYEL ADAMS AJV-352

COORDINATED WITH:

AOPA, NBAA, ZBW, AMGR

CHANGES:

1. AMENDED RWY 1 TAKEOFF MINIMUMS FROM 800-1 TO STANDARD WITH MINIMUM CLIMB OF 325 FT PER NM TO 1800 OR 1300-2 1/2 FOR CLIMB IN VISUAL CONDITIONS.
2. AMENDED RWY 14 TAKEOFF MINIMUMS FROM 800-1 TO 400-1 1/2 WITH MINIMUM CLIMB OF 270 FT PER NM TO 1800 OR STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1200 OR 1300-2 1/2 FOR CLIMB IN VISUAL CONDITIONS.
3. AMENDED RWY 19 TAKEOFF MINIMUMS FROM 800-1 TO 300-1 3/4 OR STANDARD WITH MINIMUM CLIMB OF 240 FT PER NM TO 900.
4. AMENDED RWY 32 TAKEOFF MINIMUMS FROM 800-1 TO 400-2 1/4 WITH MINIMUM CLIMB OF 265 FT PER NM TO 1700 OR STANDARD WITH MINIMUM CLIMB OF 340 FT PER NM TO 1700 OR 1300-2 1/2 FOR CLIMB IN VISUAL CONDITIONS.
5. AMENDED DEPARTURE PROCEDURES FOR ALL RWYS.
6. ADDED TAKEOFF OBSTACLE NOTES FOR ALL RWYS.
7. ADDED CONTROLLING OBSTACLES AND OBSTACLES MANDATING ODP ROUTE DEVELOPMENT FOR ALL RWYS.

REASONS:

1. NEW OBSTACLE STUDY. VCOA ADDED IAW FAAO 8260.46.
2. NEW OBSTACLE STUDY. VCOA ADDED IAW FAAO 8260.46.
3. NEW OBSTACLE STUDY.
4. NEW OBSTACLE STUDY. VCOA ADDED IAW FAAO 8260.46.
5. AMENDED ROUTES FROM DIRECT GDM VOR/DME TO DEAD RECKONING SEGMENTS. ALLOWS IFR OPERATIONS FOR ALL AIRCRAFT REGARDLESS OF NAVAID STATUS.
6. IAW FAAO 8260.46.
7. IAW FAAO 8260.46.

QUALITY 4 CHECKED