

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)
TITLE 14 CFR PART 97.37**

Bearings, headings, courses, tracks and radials are magnetic. Elevations 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.

<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
TULSA, OK	RICHARD LLOYD JONES JR	20 JUNE 2019	8

TAKEOFF MINIMUMS:

RWY 1L, 1R, 19L, 19R: STANDARD.

RWY 13: 300-3 OR STANDARD WITH MINIMUM CLIMB OF 330 FT PER NM TO 1000.

RWY 31: 400-2 1/4, OR 300-1 WITH MINIMUM CLIMB OF 315 FT PER NM TO 1100, OR STANDARD WITH MINIMUM CLIMB OF 610 FT PER NM TO 900, OR 1100-3 FOR VCOA.

TEXTUAL DEPARTURE PROCEDURES:

RWY 1L, 1R: CLIMB HEADING 010.34 TO 1500, BEFORE PROCEEDING ON COURSE.

RWY 13: CLIMB HEADING 130.05 TO 1500, BEFORE PROCEEDING ON COURSE.

RWY 19L, 19R: CLIMB HEADING 190.34 TO 1500, BEFORE PROCEEDING ON COURSE.

RWY 31: CLIMB HEADING 295.05 TO 1500, BEFORE PROCEEDING ON COURSE.

VISUAL CLIMB OVER AIRPORT:

VCOA RWY 31: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS RICHARD LLOYD JONES JR AIRPORT AT OR ABOVE 1600 BEFORE PROCEEDING ON COURSE.

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 1L, RAILROAD 397 FT FROM DER, 594 FT RIGHT OF CENTERLINE, 23 FT AGL/652 FT MSL. TREE 1492 FT FROM DER, 626 FT RIGHT OF CENTERLINE, 80 FT AGL/700 FT MSL.

NOTE: RWY 1R, RAILROAD 162 FT FROM DER, 226 FT RIGHT OF CENTERLINE, 646 FT MSL. TREE 249 FT FROM DER, 236 FT RIGHT OF CENTERLINE, 669 FT MSL. POLE AND VEHICLE ON ROAD BEGINNING 521 FT FROM DER, 116 FT RIGHT OF CENTERLINE, UP TO 53 FT AGL/673 FT MSL. TREE 1843 FT FROM DER, 73 FT LEFT OF CENTERLINE, 700 FT MSL.

NOTE: RWY 13, TREES AND BUILDING BEGINNING 63 FT FROM DER, 101 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/724 FT MSL. TREE 1960 FT FROM DER, 91 FT LEFT OF CENTERLINE, 679 FT MSL. TREE 2437 FT FROM DER, 31 FT LEFT OF CENTERLINE, 699 FT MSL. POLE 5849 FT FROM DER, 1921 FT LEFT OF CENTERLINE, UP TO 144 FT AGL/765 FT MSL. POLE 5909 FT FROM DER, 1901 FT LEFT OF CENTERLINE, UP TO 150 FT AGL/771 FT MSL. TREE AND POLES BEGINNING 5961 FT FROM DER, 1786 FT LEFT OF CENTERLINE, UP TO 168 FT AGL/788 FT MSL.

NOTE: RWY 19L, VEHICLE ON ROAD 516 FT FROM DER, 282 FT LEFT OF CENTERLINE, 15 FT AGL/644 FT MSL. TREE 790 FT FROM DER, 310 FT LEFT OF CENTERLINE, 665 FT MSL. TREE 1378 FT FROM DER, 457 FT LEFT OF CENTERLINE, 683 FT MSL.

NOTE: RWY 19R, VEHICLE ON ROAD 333 FT FROM DER, 563 FT LEFT OF CENTERLINE, 15 FT AGL/644 FT MSL. TREE 2247 FT FROM DER, 1020 FT LEFT OF CENTERLINE, 685 FT MSL.

NOTE: RWY 31, BUILDING 507 FT FROM DER, 344 FT RIGHT OF CENTERLINE, 19 FT AGL/640 FT MSL. TREE 1372 FT FROM DER, 264 FT LEFT OF CENTERLINE, 679 FT MSL. TREE 1598 FT FROM DER, 117 FT RIGHT OF CENTERLINE, 682 FT MSL. TREE 1614 FT FROM DER, 76 FT LEFT OF CENTERLINE, 683 FT MSL. TREE 1745 FT FROM DER, 186 FT RIGHT OF CENTERLINE, 688 FT MSL. TREE 2160 FT FROM DER, 74 FT LEFT OF CENTERLINE, 721 FT MSL. TREE AND TRANSMISSION LINES BEGINNING 2728 FT FROM DER, 310 FT LEFT CENTERLINE, UP TO 786 FT MSL. TRANSMISSION LINE 2732 FT FROM DER, 27 FT RIGHT OF CENTERLINE, 92 FT AGL/728 FT MSL. TRANSMISSION LINE 4655 FT FROM DER, 1747 FT LEFT OF CENTERLINE, 117 FT AGL/792 FT MSL. TREE 1.3 NM FROM DER, 1223 FT RIGHT OF CENTERLINE, 872 FT MSL. TANK 1.3 NM FROM DER, 1768 FT LEFT OF CENTERLINE, FT AGL/918 FT MSL. TOWER, SIGN, TREE BEGINNING 1.4 NM FROM DER, 120 FT RIGHT OF CENTERLINE, UP TO 84 FT AGL/914 FT MSL.

CONTROLLING OBSTACLES:

RWY 13: 788 FT MSL POLE 360144.89N/0955741.44W (CG/CGTA), 829 FT MSL TREE 360052.55N/0955609.15W (CEILING/VISIBILITY).

RWY 31: 799 FT MSL TREE 360243.53N/0955947.04W (300-1 CEILING/VISIBILITY), 939 FT MSL TREE 360319.18W/0960031.42W (400 FT CEILING, 315 FT PER NM TO 1100 CG/CGTA), 909 FT MSL TREE 360358.82N/0960030.57W (2 1/4 SM VISIBILITY), 799 FT MSL TREE 360231.75N/0955945.20W (610 FT PER NM TO 900 CG/CGTA).

RWY 31 (VCOA): 1323 FT MSL TOWER 360235.00N/0955714.00W (VCA).

OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: RWY 1L, 1R, 13, 19L, 19R, 31: 1323 FT MSL TOWER 360235.00N/0955714.00W.



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)
TITLE 14 CFR PART 97.37**

Bearings, headings, courses, tracks and radials are magnetic. Elevations 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.

<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
TULSA, OK	RICHARD LLOYD JONES JR	20 JUNE 2019	8

REMARKS:

FLIGHT INSPECTED BY:

MICHAEL S MILLER

Digitally signed by

DAVID TEFFETELLER

Feb 26, 2019

OFFICE SYMBOL:

FICO

DATE:

2/21/19

DEVELOPED BY:

Digitally signed by

KWEKU DONKOR **KWEKU DONKOR**

Jan 30, 2019

OFFICE SYMBOL:

AJV-A433

DATE:

7/25/2018

APPROVED BY:

PATRICK MULQUEEN

Digitally signed by

DAVID TEFFETELLER

Feb 26, 2019

OFFICE SYMBOL:

AJV-A43

DATE:

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

A4A **ALPA** **AOPA** **APA** **HAI** **NBAA**



OTHER:

ZKC, ZFW, RVS ATCT, TUL APP CON, AMGR.

CHANGES - REASONS:

1. TAKEOFF MINIMUMS: RWY 13 CHANGED FROM "STANDARD" TO "RWY 13: 300-3 OR STANDARD WITH MINIMUM CLIMB OF 330 FT PER NM TO 1000" - UPDATED OBSTACLE EVALUATION.
2. TAKEOFF MINIMUMS: RWY 31 CHANGED FROM "RWY 31, 400-2 1/4 OR 300-1 WITH MINIMUM CLIMB OF 315 FT PER NM TO 1100, OR STANDARD WITH MINIMUM CLIMB OF 610 FT PER NM TO 900" TO "300-1 WITH MINIMUM CLIMB OF 315 FT PER NM TO 1100, OR STANDARD WITH MINIMUM CLIMB OF 610 FT PER NM TO 900, OR 1100-3 FOR VCOA" - UPDATED OBSTACLE EVALUATION; VCOA ADDED DUE TO OBSTACLES OUTSIDE OF 3 SM THAT REQUIRE CLIMB GRADIENTS IN EXCESS OF 200 FT PER NM.
3. CONTROLLING OBSTACLES: CHANGED FROM "RWY 13 - 1323 FT MSL BUILDING 360235.00N/0955714.00W" TO "RWY 13: 788 FT MSL POLE 360144.89N/0955741.44W (CG/CGTA), 829 FT MSL TREE 360052.55N/0955609.15W (CEILING/VISIBILITY)" - UPDATED OBSTACLE EVALUATION.
4. CONTROLLING OBSTACLES CHANGED FROM "RWY 31: 799 FT MSL TREE 360231.75N/095945.20W, 939 FT MSL TREE 360319.18N/0960031.42W, 909 FT MSL TREE 360402.10N/0960029.25W, 792 FT MSL T-L TOWER 360248.18N/0960009.56W, 799 FT MSL TREE 360243.53N/0955947.04W, 2296 FT MSL TOWER 361146.49N/0960552.96W" TO "799 FT MSL TREE 360243.53N/0955947.04W (300-1 CEILING/VISIBILITY), 939 FT MSL TREE 360319.18W/0960031.42W (400 FT CEILING, 315 FT PER NM TO 1100 CG/CGTA), 909 FT MSL TREE 360358.82N/0960030.57W (2 1/4 SM VISIBILITY), 799 FT MSL TREE 360231.75N/0955945.20W (610 FT PER NM TO 900 CG/CGTA)" - UPDATED OBSTACLE EVALUATION.
5. ADDED "RWY 31 (VCOA): 1323 FT MSL TOWER 360235.00N/0955714.00W (VCA)" CONTROLLING OBSTACLE. - IAW 8260.46F, APPENDIX D, PARA 10.
6. ADDED "OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: RWY 1L, 1R, 13, 19L, 19R, 31: 1323 FT MSL TOWER 360235.00N/0955714.00W" - IAW 8260.46F APPENDIX E PARA 8C.
7. CHANGED TEXTUAL DEPARTURE PROCEDURE FROM "RWY 1L, 1R: CLIMB HEADING 007.34 TO 1500 BEFORE PROCEEDING ON COURSE" TO "CLIMB HEADING 010.34 TO 1500 BEFORE PROCEEDING ON COURSE..." - MAGVAR CHANGED FROM 6E/1985 TO 3E/2020. IAW 8260.46F APPENDIX E SECTION 1 PARA 3.
8. CHANGED TEXTUAL DEPARTURE PROCEDURE FROM "RWY 13: CLIMB HEADING 127.05 TO 1500 BEFORE PROCEEDING ON COURSE" TO "CLIMB HEADING 130.05 TO 1500, BEFORE PROCEEDING ON COURSE..." - MAGVAR CHANGED FROM 6E/1985 TO 3E/2020. IAW 8260.46F APPENDIX E SECTION 1 PARA 3.
9. CHANGED TEXTUAL DEPARTURE PROCEDURE FROM "RWY 19L, 19R: CLIMB HEADING 187.34 TO 1500 BEFORE PROCEEDING ON COURSE" TO "CLIMB HEADING 190.34 TO 1500, BEFORE PROCEEDING ON COURSE..." - MAGVAR CHANGED FROM 6E/1985 TO 3E/2020. IAW 8260.46F APPENDIX E SECTION 1 PARA 3.
10. CHANGED TEXTUAL DEPARTURE PROCEDURE FROM "RWY 31: CLIMB HEADING 292.05 TO 1500 BEFORE PROCEEDING ON COURSE" TO "CLIMB HEADING 295.05 TO 1500, BEFORE PROCEEDING ON COURSE..." - MAGVAR CHANGED FROM 6E/1985 TO 3E/2020. IAW 8260.46F APPENDIX E SECTION 1 PARA 3.
11. UPDATED TAKEOFF OBSTACLE NOTES FOR ALL RUNWAYS - UPDATED TERRAIN AND OBSTACLE EVALUATION; INCLUDES NETTING POLES WITH OE STUDY NUMBERS 2015-ASW-5966-OE THROUGH 2015-ASW-5972-OE THAT ARE NOW PERMANENT TAKEOFF OBSTACLES FOR RWY 13.