

**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.

<b>CITY, STATE</b>	<b>AIRPORT</b>	<b>EFFECTIVE DATE</b>	<b>AMDT NO</b>
BULLHEAD CITY, AZ	LAUGHLIN/BULLHEAD INTL	03/02/2017	2

**TAKEOFF MINIMUMS:**

RWY 16, STANDARD WITH A MINIMUM CLIMB OF 285 FT PER NM TO 1700, OR 1700-3 FOR VCOA.  
RWY 34, STANDARD WITH A MINIMUM CLIMB OF 500 FT PER NM TO 5500, OR 1700-3 FOR VCOA.

**TEXTUAL DEPARTURE PROCEDURES:**

RWY 16, CLIMB ON HEADING 164.46 AND EED VORTAC R-331 TO EED VORTAC.  
RWY34, CLIMB ON HEADING 344.46 TO 2200, THEN CLIMBING RIGHT TURN DIRECT EED VORTAC.  
ALL AIRCRAFT CLIMB IN EED VORTAC HOLDING PATTERN (E, RIGHT TURNS, 256.78 INBOUND) TO CROSS EED VORTAC AT OR ABOVE MEA FOR DIRECTION OF FLIGHT BEFORE PROCEEDING ON COURSE.

**VISUAL CLIMB OVER AIRPORT:**

RWY 16: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS LAUGHLIN/BULLHEAD INTL AIRPORT AT OR ABOVE 2300, THEN CONTINUE CLIMBING ON HEADING 155 AND EED VORTAC R-335 TO EED VORTAC.

RWY 34: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS LAUGHLIN/BULLHEAD INTL AIRPORT AT OR ABOVE 2300, THEN CONTINUE CLIMBING ON HEADING 155 AND EED VORTAC R-335 TO EED VORTAC.

**TAKEOFF OBSTACLE NOTES:**

**NOTE:** RWY 16, GRD 188 FT FROM DER, 83 FT LEFT OF CENTERLINE, 715 FT MSL. BUSH 349 FT FROM DER, 516 FT RIGHT OF CENTERLINE, 722 FT MSL. GRD 390 FT FROM DER, 528 FT LEFT OF CENTERLINE, 719 FT MSL. GRD BEGINNING 484 FT FROM DER, 481 FT LEFT OF CENTERLINE, UP TO 723 FT MSL. BUSH 532 FT FROM DER, 642 FT RIGHT OF CENTERLINE, 727 FT MSL. GRD BEGINNING 568 FT FROM DER, 490 FT LEFT OF CENTERLINE, UP TO 727 FT MSL. BUSH 700 FT FROM DER, 663 FT RIGHT OF CENTERLINE, 728 FT MSL. GRD 798 FT FROM DER, 466 FT LEFT OF CENTERLINE, 729 FT MSL. BUSH, GRD BEGINNING 801 FT FROM DER, 541 FT LEFT OF CENTERLINE, UP TO 734 FT MSL. TREE, BUSH, GRD BEGINNING 910 FT FROM DER, 557 FT LEFT OF CENTERLINE, UP TO 745 FT MSL. BUSH, GRD BEGINNING 1103 FT FROM DER, FROM 204 FT RIGHT TO 1008 FT LEFT OF CENTERLINE, UP TO 777 FT MSL. GRD, BUSH BEGINNING 2134 FT FROM DER, 731 FT LEFT OF CENTERLINE, UP TO 778 FT MSL. GRD, BUSH BEGINNING 2214 FT FROM DER, 870 FT LEFT OF CENTERLINE, UP TO 786 FT MSL. GRD BEGINNING 2288 FT FROM DER, 801 FT LEFT OF CENTERLINE, UP TO 792 FT MSL. GRD, TREE BEGINNING 2328 FT FROM DER, 724 FT LEFT OF CENTERLINE, UP TO 797 FT MSL. GRD BEGINNING 2811 FT FROM DER, 1128 FT LEFT OF CENTERLINE, UP TO 798 FT MSL. GRD BEGINNING 2915 FT FROM DER, 1166 FT LEFT OF CENTERLINE, UP TO 800 FT MSL. GRD BEGINNING 3022 FT FROM DER, 1185 FT LEFT OF CENTERLINE, UP TO 804 FT MSL. GRD BEGINNING 3123 FT FROM DER, 1221 FT LEFT OF CENTERLINE, UP TO 809 FT MSL. GRD BEGINNING 3219 FT FROM DER, 1257 FT LEFT OF CENTERLINE, UP TO 814 FT MSL. GRD BEGINNING 3325 FT FROM DER, 1284 FT LEFT OF CENTERLINE, UP TO 818 FT MSL. GRD BEGINNING 3428 FT FROM DER, 1210 FT LEFT OF CENTERLINE, UP TO 821 FT MSL. GRD BEGINNING 3528 FT FROM DER, 1241 FT LEFT OF CENTERLINE, UP TO 824 FT MSL. GRD, BUSH, TANK BEGINNING 3632 FT FROM DER, 1157 FT LEFT OF CENTERLINE, UP TO 825 FT MSL. TANK 4810 FT FROM DER, 1528 FT LEFT OF CENTERLINE, 848 FT MSL. GRD 5412 FT FROM DER, 1872 FT LEFT OF CENTERLINE, 852 FT MSL. GRD, BUSHES BEGINNING 5511 FT FROM DER, 926 FT LEFT OF CENTERLINE, UP TO 865 FT MSL. BUSHES BEGINNING 5742 FT FROM DER, 1483 FT LEFT OF CENTERLINE, UP TO 883 FT MSL. GRD, BUSHES BEGINNING 5774 FT FROM DER, 793 FT LEFT OF CENTERLINE, UP TO 891 FT MSL. BUSH 5852 FT FROM DER, 1933 FT LEFT OF CENTERLINE, 904 FT MSL. GRD, POLE, BUSHES BEGINNING 5856 FT FROM DER, 24 FT LEFT OF CENTERLINE, UP TO 920 FT MSL. TREES, BUSHES, GRD, TANK BEGINNING 1.2 NM FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 962 FT MSL. TREES, BUSHES, GRD BEGINNING 1.3 NM FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 985 FT MSL. BUSH 1.4 NM FROM DER, 1941 FT LEFT OF CENTERLINE, 993 FT MSL. BUSHES, GRD, TANK, POLE BEGINNING 1.5 NM FROM DER, 1919 FT LEFT OF CENTERLINE, UP TO 1036 FT MSL. BUSHES, VEHICLES ON ROAD, TREES, POLE BEGINNING 1.9 NM FROM DER, 2218 FT LEFT OF CENTERLINE, UP TO 1086 FT MSL. TANKS, BUSHES, POLE BEGINNING 2.2 NM FROM DER, 3103 FT LEFT OF CENTERLINE, UP TO 1121 FT MSL.

NOTE: RWY 34, AIRFIELD LIGHT 40 FT FROM DER, 148 FT RIGHT OF CENTERLINE, 627 FT MSL. T-L TWR, TREE BEGINNING 1818 FT FROM DER, 620 FT RIGHT OF CENTERLINE, UP TO 65 FT AGL/687 FT MSL. POLE, TREE BEGINNING 2214 FT FROM DER, 629 FT RIGHT OF CENTERLINE, UP TO 709 FT MSL. POLE, TREE BEGINNING 2638 FT FROM DER, 646 FT RIGHT OF CENTERLINE, UP TO 719 FT MSL. POLE, BUSHES, GRD BEGINNING 3054 FT FROM DER, 663 FT RIGHT OF CENTERLINE, UP TO 741 FT MSL. POLE, BUSH, BLDG, GRD, VEHICLES ON ROAD BEGINNING 3661 FT FROM DER, 691 FT RIGHT OF CENTERLINE, UP TO 773 FT MSL. POLES, BUSHES, GRD, VEHICLES ON ROAD, TREES, BLDGS, FLAGPOLE BEGINNING 4024 FT FROM DER, 705 FT RIGHT OF CENTERLINE, UP TO 796 FT MSL. COMM TWR 5197 FT FROM DER, 1015 FT RIGHT OF CENTERLINE, 816 FT MSL. COMM TWR 5278 FT FROM DER, 1149 FT RIGHT OF CENTERLINE, 821 FT MSL. T-L TWR 1.6 NM FROM DER, 719 FT LEFT OF CENTERLINE, 894 FT MSL. GRD BEGINNING 1.8 NM FROM DER, 3419 FT RIGHT OF CENTERLINE, UP TO 963 FT MSL. GRD 2.1 NM FROM DER, 3212 FT RIGHT OF CENTERLINE, 1018 FT MSL. GRD, TREE BEGINNING 2.2 NM FROM DER, 1351 FT RIGHT OF CENTERLINE, UP TO 1079 FT MSL. GRD 2.6 NM FROM DER 3025 FT RIGHT OF CENTERLINE, 2010 FT MSL.

**CONTROLLING OBSTACLES:**

RWY 16: 920 FT MSL BUSH 350738.09N/1143301.64W (CLIMB GRADIENT), 1400 FT MSL AAO 350505.60N/1143201.60W (CLIMB-TO ALTITUDE)  
RWY 34: 4244 FT MSL AAO 351326.13N/1142447.22W.



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VCOA: 2040 FT MSL AAO 351029.46N/1142842.35W.  
OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 16, 34: 5839 FT AAO 351624.75N/1144320.70W

**REMARKS:**

OBSTACLES KIFPT000235, KIFPT000236, KIFPT000238 (CONSTRUCTION ACC), AND KIFPT000255 (TK) WERE CONSTRUCTION EQUIPMENT AND WERE REMOVED UPON COMPLETION OF RUNWAY 16 EXTENSION PROJECT PER ENGINEER BILL HARVEY OF STANTEC 602-363-5922.

**FLIGHT INSPECTED BY:**

PENDING

**OFFICE SYMBOL:**

**DATE:**

**DEVELOPED BY:**

HERMAN ROGERS

*Digitally signed by*

**HERMAN C ROGERS**

Dec 07, 2016

**OFFICE SYMBOL:**

AJV-5432

**DATE:**

11/29/2016

**APPROVED BY:**

PATRICK MULQUEEN

*Digitally signed by*

**JACOB POWERS**

Dec 19, 2016

**OFFICE SYMBOL:**

AJV-5430

**DATE:**

**REQUIRED EFFECTIVE DATE:**

3/2/2017

**COORDINATED WITH:**

<b>A4A</b>	<b>ALPA</b>	<b>AOPA</b>	<b>APA</b>	<b>HAI</b>	<b>NBAA</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**OTHER:**

ZLA, LAS APP CON, IFP ATCT, AMGR, AZ AERO, NV AERO

**CHANGES - REASONS:**

**CHANGES:**

1. RWY 16 TAKEOFF MINIMUMS CHANGED FROM "STANDARD WITH A MINIMUM CLIMB OF 370 FT PER NM TO 1800, OR 1700-3 FOR CLIMB IN VISUAL CONDITIONS", TO READ, "STANDARD WITH A MINIMUM CLIMB OF 285 FT PER NM TO 1700, OR 1700-3 FOR VCOA".
2. RWY 34 TAKEOFF MINIMUMS CHANGED FROM "STANDARD WITH A MINIMUM CLIMB OF 495 FT PER NM TO 5500, OR 1700-3 FOR CLIMB IN VISUAL CONDITIONS", TO READ, "STANDARD WITH A MINIMUM CLIMB OF 500 FT PER NM TO 5500, OR 1700-3 FOR VCOA".
3. MOVED VCOA INSTRUCTIONS FROM TEXTUAL DEPARTURE PROCEDURE TO VISUAL CLIMB OVER AIRPORT.
4. ADDED "OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE" TO THE VCOA INSTRUCTIONS.
5. UPDATED TAKEOFF OBSTACLE NOTES.
6. UPDATED CONTROLLING OBSTACLES.
7. CHANGED RWY 16 NEEDLES (EED) VORTAC INTERCEPT RADIAL FROM R-335 TO R-331.

**REASONS:**

- 1/2. UPDATED SURVEY DATA AND MAP STUDY.
3. FORM FORMATTING.
4. IAW 8260.46F, APP D, 8.B.
5. UPDATED SURVEY DATA.
6. NEW OBSTACLE INFORMATION AND CONTROLLING OBSTACLES.
7. CORRECTED INTERCEPT HEADING TO MEET RUNWAY HEADING.

