

**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>
ANKENY, IA	ANKENY RGNL	01/05/2017	2

TAKEOFF MINIMUMS:

RWY 4, 18, 36 - STANDARD.
RWY 22, 400-2 OR STANDARD WITH MINIMUM CLIMB OF 385 FT PER NM TO 1400.

TEXTUAL DEPARTURE PROCEDURES:

RWY 4 - CLIMB ON HEADING 042.00 TO 2600 BEFORE TURNING LEFT.
RWY 18 - CLIMBING LEFT TURN HEADING 150.01 TO 2200 BEFORE PROCEEDING ON COURSE.
RWY 22 - CLIMB ON HEADING 222.01 TO 1900 BEFORE TURNING RIGHT.
RWY 36 - CLIMBING RIGHT TURN HEADING 050.00 TO INTERCEPT TNU VOR/DME R-258 INBOUND TO 3300 BEFORE TURNING WESTBOUND.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 4, VEHICLE ON ROAD 196 FT FROM DER, CROSSING CENTERLINE, UP TO 15 FT AGL/917 FT MSL.
TREES BEGINNING 773 FT FROM DER, 677 FT RIGHT OF CENTERLINE, UP TO 958 FT MSL.
TREES BEGINNING 892 FT FROM DER, 96 FT RIGHT OF CENTERLINE, UP TO 967 FT MSL.
TREES BEGINNING 1010 FT FROM DER, 32 FT LEFT OF CENTERLINE, UP TO 951 FT MSL.
TREE 1616 FT FROM DER, 252 FT RIGHT OF CENTERLINE, 975 FT MSL.
TREES BEGINNING 3639 FT FROM DER, 1158 FT LEFT OF CENTERLINE, UP TO 1006 FT MSL.
TREE 3840 FT FROM DER, 121 FT RIGHT OF CENTERLINE, 1011 FT MSL.
TREE 4035 FT FROM DER, 1344 FT LEFT OF CENTERLINE, 1012 FT MSL.
TREE 4155 FT FROM DER, 1142 FT LEFT OF CENTERLINE, 1028 FT MSL.

NOTE: RWY 18, REIL 10 FT FROM DER, 31 FT LEFT OF CENTERLINE, 2 FT AGL/889 FT MSL.
REIL 10 FT FROM DER, 29 FT RIGHT OF CENTERLINE, 2 FT AGL/889 FT MSL.
TREE 179 FT FROM DER, 291 FT LEFT OF CENTERLINE, 894 FT MSL.
TRMSN TWR 2606 FT FROM DER, 57 FT LEFT OF CENTERLINE, 85 FT AGL/953 FT MSL.
T-L TWRS BEGINNING 2611 FT FROM DER, 58 FT LEFT OF CENTERLINE, UP TO 92 FT AGL/967 FT MSL.

NOTE: RWY 22, REIL 10 FT FROM DER, 17 FT LEFT OF CENTERLINE, 1 FT AGL/911 FT MSL.
SIGN 520 FT FROM DER, 617 FT RIGHT OF CENTERLINE, 20 FT AGL/942 FT MSL.
VEHICLES ON RD BEGINNING 868 FT FROM DER, CROSSING CENTERLINE, UP TO 17 FT AGL/946 FT MSL.
SIGN 1430 FT FROM DER, 48 FT LEFT OF CENTERLINE, 26 FT AGL/958 FT MSL.
SIGN 2067 FT FROM DER, 398 FT RIGHT OF CENTERLINE, 46 FT AGL/993 FT MSL.
TRMSN TOWERS BEGINNING 5774 FT FROM DER, 1675 FT LEFT OF CENTERLINE, UP TO 152 FT AGL/1074 FT MSL.
TOWERS BEGINNING 1.1 NM FROM DER, 2202 FT RIGHT OF CENTERLINE, UP TO 266 FT AGL/1232 FT MSL.
T-L TOWERS BEGINNING 1.1 NM FROM DER, 776 FT LEFT OF CENTERLINE, UP TO 130 FT AGL/1097 FT MSL.
TOWERS BEGINNING 1.2 NM FROM DER, 604 FT RIGHT OF CENTERLINE, UP TO 298 FT AGL/1250 FT MSL.

NOTE: RWY 36, REIL 8 FT FROM DER, 30 FT LEFT OF CENTERLINE, 2 FT AGL/905 FT MSL.
REIL 9 FT FROM DER, 30 FT RIGHT OF CENTERLINE, 2 FT AGL/905 FT MSL.
TREES BEGINNING 1993 FT FROM DER, 202 FT LEFT OF CENTERLINE, UP TO 964 FT MSL.
TREES BEGINNING 2011 FT FROM DER, 318 FT LEFT OF CENTERLINE, UP TO 970 FT MSL.
TREE 2203 FT FROM DER, 268 FT LEFT OF CENTERLINE, 971 FT MSL.
TREE 2204 FT FROM DER, 205 FT LEFT OF CENTERLINE, 974 FT MSL.

CONTROLLING OBSTACLES:

RWY 22: 1250 FT MSL TOWER, 414045.00N/0933547.00W (CG); 1247 FT MSL TOWER, 414015.00N/0933559.00W (CEILING/VISIBILITY).

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 4, 22, 36: 2988 FT MSL TOWER, 414833.00N/0933654.00W. RWY 18: 1446 FT MSL TOWER, 413805.00N/0933445.00W; 2004 FT MSL TOWER, 413755.00N/0932727.00W.

REMARKS:

100 FT VEGETATION HEIGHT USED PER FPT.
RWY 18 DEPARTURE ROUTE NEEDED IN ORDER TO AVOID OBSTACLES LEFT AND RIGHT OF COURSE. STRAIGHT OUT DEPARTURE CAUSES PENETRATION REQUIRING THE TURN IN EXCESS OF 15 DEGREES.
RWY 36 DEPARTURE ROUTE NECESSARY DUE TO PENETRATION IN DIVERSE AREA. OBSTACLE HEIGHT CAUSES CLIMB TO ALTITUDE THAT EXTENDS ICA PAST 10NM DEAD RECKONING LIMITATIONS SET FORTH BY CURRENT CRITERIA MANDATING POSITIVE COURSE GUIDANCE ROUTE TO TNU VOR/DME.

FLIGHT INSPECTED BY:

PENDING

OFFICE SYMBOL:

DATE:

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DEVELOPED BY: JULIE MORGAN (DUSTIN DAVIDSON)	<i>Digitally signed by</i> STEVEN A VARGAS Nov 28, 2016	OFFICE SYMBOL: AJV-5422	DATE: 11/04/2016
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APPROVED BY: TONY LAWSON	<i>Digitally signed by</i> STEVEN A VARGAS Nov 28, 2016	OFFICE SYMBOL: AJV-5420	DATE:
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REQUIRED EFFECTIVE DATE:
01/05/2017

COORDINATED WITH:

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

OTHER:
ZAU, DSM APP CON, AMGR

CHANGES - REASONS:
CHANGES:

1. CHANGED RWY 4 TAKEOFF MINIMUMS FROM NA TO STANDARD.
2. INCREASED RWY 22 TAKEOFF MINIMUMS MINIMUM CLIMB GRADIENT FROM 375 FT PER NM TO 385 FT PER NM.
3. ADDED RWY 4 TEXTUAL DEPARTURE PROCEDURES
4. CHANGED RWY 18 TEXTUAL DEPARTURE PROCEDURE TURN HEADING FROM 150.00 TO 150.01.
5. CHANGED RWY 22 TEXTUAL DEPARTURE PROCEDURE TURN HEADING FROM 222.00 TO 222.01.
6. DECREASED RWY 22 TEXTUAL DEPARTURE PROCEDURE CLIMB TO ALTITUDE FROM 2000 FT TO 1900 FT.
7. CHANGED RWY 36 TEXTUAL DEPARTURE PROCEDURE FROM CLIMBING RIGHT TURN HEADING 050.00 TO INTERCEPT TNU VOR/DME R-263 INBOUND TO 3100 BEFORE TURNING WEST TO CLIMBING RIGHT TURN HEADING 050.00 TO INTERCEPT TNU VOR/DME R-258 INBOUND TO 3300 BEFORE TURNING WESTBOUND.
8. UPDATED TAKEOFF OBSTACLE NOTES.
9. UPDATED CONTROLLING OBSTACLES.

REASONS:

1. NEW SURVEY FOR RWY 4 SINCE LAST PROCEDURE AMENDMENT ALLOWS FOR STANDARD TAKEOFF MINIMUMS.
2. NEW CRITERIA IMPLEMENTATION IN AUTOMATION CAUSES HIGHER CG FOR CONTROLLING OBSTACLE.
3. NEW SURVEY FOR RWY 4 SINCE LAST PROCEDURE AMENDMENT ALLOWS FOR DEPARTURE FROM RUNWAY.
- 4-5. RWY ALIGNMENT WITH NEW AIRPORT SURVEY SINCE LAST PROCEDURE AMENDMENT.
6. HIGHER CLIMB GRADIENT NEEDED TO CLEAR CONTROLLING OBSTACLE ALLOWS FOR LOWER CLIMB GRADIENT TERMINATION ALTITUDE.
7. ALIGN RADIAL WITH CENTER OF ICA IAW 8260.3B CHG 26 VOL 4 PARA 3.8.2. NEW HIGHER CLIMB TO ALTITUDE NEEDED DUE TO APPLICATION OF THIS CRITERIA.
- 8-9. NEW AIRPORT SURVEY SINCE LAST PROCEDURE AMENDMENT.