

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.
DANBURY, CT	DANBURY MUNI		4

TAKEOFF MINIMUMS:

RWY 17, NA - TERRAIN
RWY 8, 600-2
RWY 26, 600-2 1/2
RWY 35, STANDARD WITH MINIMUM CLIMB OF 470 FT PER NM TO 1100 OR 1200-2 1/2 FOR CLIMB IN VISUAL CONDITIONS.

TEXTUAL DEPARTURE PROCEDURES:

RWY 8 – CLIMB HEADING 083.75 TO 1200 BEFORE TURNING.
RWY 26 – CLIMB HEADING 263.77 TO 1300 BEFORE TURNING.
RWY 35 – FOR CLIMB IN VISUAL CONDITIONS, CROSS DANBURY MUNI AT OR ABOVE 1500 BEFORE PROCEEDING ON COURSE. WHEN EXECUTING VCOA, NOTIFY ATC PRIOR TO DEPARTURE.

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 8, VEHICLES ON ROADWAY 93 FT FROM DER, 222 FT RIGHT OF CENTERLINE, UP TO 15 FT AGL/480 FT MSL. POLE 308 FT FROM DER, 185 FT RIGHT OF CENTERLINE, 39 FT AGL/505 FT MSL. BUILDINGS BEGINNING 316 FT FROM DER, 366 FT LEFT OF CENTERLINE, UP TO 35 FT AGL/499 FT MSL. POLE 691 FT FROM DER, 150 FT RIGHT OF CENTERLINE, 56 FT AGL/524 FT MSL. POLE 885 FT FROM DER, 333 FT LEFT OF CENTERLINE, 62 FT AGL/532 FT MSL. BUILDING 1876 FT FROM DER, 520 FT LEFT OF CENTERLINE, 61 FT AGL/646 FT MSL. POLE 2017 FT FROM DER, 201 FT RIGHT OF CENTERLINE, 96 FT AGL/701 FT MSL. TREES AND POLE BEGINNING 2372 FT FROM DER, 28 FT RIGHT OF CENTERLINE, UP TO 105 FT AGL/799 FT MSL. BUILDING 1.5 NM FROM DER, 786 FT RIGHT OF CENTERLINE, 118 FT AGL/722 FT MSL. TOWER 1.5 NM FROM DER, 2377 FT RIGHT OF CENTERLINE, 275 FT AGL/1015 FT MSL.

NOTE: RWY 26, TERRAIN 85 FT FROM DER, 240 FT LEFT OF CENTERLINE, 461 FT MSL. TREES BEGINNING 1543 FT FROM DER, 910 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/959 FT MSL. POLE 1.2 NM FROM DER, 915 FT LEFT OF CENTERLINE, 100 FT AGL/709 FT MSL. POLE 2.0 NM FROM DER, 1375 FT LEFT OF CENTERLINE, 82 FT AGL/825 FT MSL.

NOTE: RWY 35, FENCE 43 FT FROM DER, 59 FT LEFT OF CENTERLINE, 18 FT AGL/458 FT MSL. VEHICLES ON ROADWAY 77 FT FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 15 FT AGL/467 FT MSL. POLES BEGINNING 416 FT FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 72 FT AGL/505 FT MSL. BUILDING 916 FT FROM DER, 462 FT RIGHT OF CENTERLINE, 95 FT AGL/521 FT MSL. TREES BEGINNING 1.3 NM FROM DER, 427 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/839 FT MSL. BUILDING 1.2 NM FROM DER, 695 FT RIGHT OF CENTERLINE, 62 FT AGL/722 FT MSL. BUILDING 1.4 NM FROM DER, 187 FT RIGHT OF CENTERLINE, 59 FT AGL/758 FT MSL.

CONTROLLING OBSTACLES:

RWY 8: 1015 FT MSL TOWER 412226.89N/0732646.10W.
RWY 26: 959 FT MSL TREE 412048.65N/0733145.55W.
RWY 35: 839 FT MSL TREE 412335.60N/0732934.50W. 879 FT MSL TREE 412432.60N/0732931.30W.
VCOA: 1167 FT MSL TREE 412440.00N/0733148.50W.

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 8 – 1039 FT MSL TREE 412209.10N/0732730.75W. RWY 26 – 1209 FT MSL AAO 411850.40N/0733249.15W.



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REMARKS:

FLIGHT CHECK 4D ACCURACY VERIFICATION REQUESTED FOR 758 FT MSL BLDG 412340.00N/0732941.00W AND 722 FT MSL BLDG 412333.53N/0732929.16W.

FLIGHT INSPECTED BY:

REQUIRED EFFECTIVE DATE:

ROUTINE

DEVELOPED BY:

JILL OLSON (JEFF RAWDON) AJV-352 07/28/2011

APPROVED BY:

DARRYEL ADAMS AJV-352

COORDINATED WITH:

ALPA, AOPA, NBAA, NEW YORK APP CON, DXR ATCT, ARPT MGR

CHANGES:

1. RWY 8 TAKEOFF MINIMUMS CHANGED FROM 600-2 TO 600-1 ½.
2. RWY 17 TAKEOFF MINIMUMS CHANGED FROM 600-1 TO 700-2 ½.
3. RWY 26 TAKEOFF MINIMUMS CHANGED FROM 500-2 TO 600-2 ½.
4. RWY 35 TAKEOFF MINIMUMS CHANGED FROM 900-2 OR STANDARD WITH MINIMUM CLIMB TO 360 FT PER NM TO 1500 TO STANDARD WITH MINIMUM CLIMB OF 470 FT PER NM TO 1100 OR 1200-2 ½ FOR CLIMB IN VISUAL CONDITIONS.
5. CHANGED RWY 8 DEPARTURE PROCEDURE FROM "RUNWAY HEADING" TO ACTUAL HEADING VALUE.
6. CHANGED RWY 17 DEPARTURE PROCEDURE FROM "CLIMB RUNWAY HEADING TO 1200..." TO "CLIMB HEADING 167.09 TO 1300 ...".
7. CHANGED RWY 26 DEPARTURE PROCEDURE FROM "CLIMB RUNWAY HEADING TO 1500..." TO "CLIMB HEADING 263.77 TO 1300..."
8. CHANGED RWY 35 DEPARTURE PROCEDURE FROM "CLIMB RUNWAY HEADING TO 1500 BEFORE PROCEEDING ON COURSE" TO "FOR CLIMB IN VISUAL CONDITIONS, CROSS DANBURY MUNI AT OR ABOVE 1500 BEFORE PROCEEDING ON COURSE."
9. ADDED TAKEOFF OBSTACLE NOTES.

REASONS:

- 1, 2, 3, 4, 5, 6. REEVALUATION OF OBSTACLES AND MINIMA IAW 8260.3B VOLUME IV, 8260.46D, AND 8260.19D PARA 274.
- 5, 6, 7, 8. IAW 8260.46D PARA 7A.
9. IAW 8260.46D PARA 8.

2/6/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 7/28/2011:

1. TAKE-OFF MINIMUMS: RWY 17: REMOVED "700-2 ½, OR STANDARD WITH MINIMUM CLIMB OF 1095 FT PER NM TO 1300." ADDED NA – TERRAIN.
2. TEXTUAL DEPT PROCEDURES: RWY 17: REMOVED CLIMB INSTRUCTIONS. RWY 35: ADDED NOTE "WHEN EXECUTING VCOA, NOTIFY ATC PRIOR TO DEPARTURE."
3. TAKEOFF OBSTACLE NOTES: RWY 17 - REMOVED NOTES.
4. CONTROLLING OBSTACLES: RWY 17 - REMOVED OBSTACLE INFORMATION.

3/13/2012: THIS IS AN UPDATED COPY OF THE FORM UPDATED ON 2/6/2012

- RWY 8: REMOVED STANDARD MINIMUMS WITH CLIMB GRADIENT AND CHANGED TO SEE AND AVOID MINIMUMS 600-2. THE AWO RAISED FROM 1 ½ TO 2
- RWY 26: REMOVED STANDARD MINIMUMS WITH CLIMB GRADIENT AND CHANGED TO SEE AND AVOID MINIMUMS 600-2 ½
- CHANGES MADE AS PER AFS APPROVAL REQUEST WAS DISAPPROVED AND AWO RECOMMENDATIONS.





Federal Aviation Administration

Memorandum

Date:

To: Leslie H. Smith, Manager, Flight Technologies and
Procedures Division
THRU: Stacey L. Zinke-McKee, Manager, Flight Procedure
Implementation & Oversight Branch

From: Wade EK Terrell Lead, Production Integration Coordination Team,
AJV-34

Reply To Attn Of: Wade EK Terrell
(405) 954-7370
FAX (405) 954-1301

Subject: **ACTION:** Approval Request

TAKEOFF MINIMUMS ODP RWY 17, Danbury Muni, Danbury, CT (KDXR)

Climb gradient exceeds 500 feet per NM, 8260.46c, Para. 10e(2).

The computed climb gradient is 1095 feet per NM to an altitude 842 feet above airport elevation. The obstacle driving this climb gradient is a 1089 MSL TREE (100' adverse vegetation placed on high terrain).

Request approval to publish a minimum climb gradient of 1095 feet per NM to 1300.

In addition to numerous surveyed obstacles, adverse assumption obstacles were applied on terrain making it impossible to design a departure procedure to avoid all possible penetrations.

In realizing a climb gradient of 1095 feet per NM will likely not be approved, recommend use of ceiling/visibility of 700-2 ½ to mitigate the obstacles causing the excessive climb gradient.

Please respond as soon as possible.

Attachment



Federal Aviation Administration

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Date:

To: Leslie H. Smith, Manager, Flight Technologies and
Procedures Division
THRU: Stacey L. Zinke-McKee, Manager, Flight Procedure
Implementation & Oversight Branch

From: Wade EK Terrell Lead, Production Integration Coordination Team,
AJV-34

Reply To Attn Of: Wade EK Terrell
(405) 954-7370
FAX (405) 954-1301

Subject: **ACTION:** Approval Request

TAKEOFF MINIMUMS ODP RWY 8, Danbury Muni, Danbury, CT (KDXR)

Climb gradient exceeds 500 feet per NM, 8260.46c, Para. 10e(2).

The computed climb gradient is 985 feet per NM to an altitude 642 feet above airport elevation.
The obstacle driving this climb gradient is a 701 MSL POLE.

Request approval to publish a minimum climb gradient of 985 feet per NM to 1100.

In addition to numerous surveyed obstacles, adverse assumption obstacles were applied on terrain making it impossible to design a departure procedure to avoid all possible penetrations.

In realizing a climb gradient of 985 feet per NM will likely not be approved, recommend use of ceiling/visibility of 600-1 ½ to mitigate the obstacles causing the excessive climb gradient.

Please respond as soon as possible.

Attachment



Federal Aviation Administration

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Date:

To: Leslie H. Smith, Manager, Flight Technologies and
Procedures Division
THRU: Stacey L. Zinke-McKee, Manager, Flight Procedure
Implementation & Oversight Branch

From: Wade EK Terrell Lead, Production Integration Coordination Team,
AJV-34

Reply To Attn Of: Wade EK Terrell
(405) 954-7370
FAX (405) 954-1301

Subject: **ACTION:** Approval Request

TAKEOFF MINIMUMS ODP RWY 26, Danbury Muni, Danbury, CT (KDXR)

Climb gradient exceeds 500 feet per NM, 8260.46c, Para. 10e(2).

The computed climb gradient is 1515 feet per NM to an altitude 542 feet above airport elevation. The obstacle driving this climb gradient is a 759 MSL TREE (100' adverse vegetation placed on high terrain).

Request approval to publish a minimum climb gradient of 1515 feet per NM to 1000.

In addition to numerous surveyed obstacles, adverse assumption obstacles were applied on terrain making it impossible to design a departure procedure to avoid all possible penetrations.

In realizing a climb gradient of 1515 feet per NM will likely not be approved, recommend use of ceiling/visibility of 600-2 ½ to mitigate the obstacles causing the excessive climb gradient.

Please respond as soon as possible.

Attachment