U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

**CHANGE
8260.46C CHG 1**

Effective Date:
4/21/06

SUBJ: DEPARTURE PROCEDURE (DP) PROGRAM

1.   PURPOSE. This change transmits revised pages to Appendix 5 and Appendix 6 of Order 8260.46C, Departure Procedures (DP) Program.

2.   DISTRIBUTION. This order is distributed in Washington headquarters to the branch level in the Offices of System Safety; Aviation Policy and Plans; Air Traffic Systems Development; Aviation Research; Communications, Navigation, and Surveillance Systems; and Airport Safety and Standards; to Flight Standards, Air Traffic, and Airway Facilities Services; to the Aeronautical Information Services Division (System Operations Services); to the National Flight Procedures Office (NFPO), AVN-100, to the National Aeronautical Charting Office (NACO), Requirements and Technology Staff, AVN-503; to the National Airway Systems Engineering and Regulatory Standards Divisions at the Mike Monroney Aeronautical Center; to the branch level in the regional Flight Standards, Air Traffic, Airway Facilities, and Airports Divisions; to all Flight Inspection Field Offices; to the Flight Standards District Offices (FSDOs); to all Air Traffic Field Offices and Facilities; to all Airway Facilities Field Offices; special mailing list ZVN-826; and Special Military and Public Addressees.

3.   EXPLANATION OF CHANGES. This change adds "or alternatively" to Appendix 5, BLOCK 1, item 3 example on page 3 and removes a phrase that was duplicated in BLOCK 5, item 3 on page 20, and corrects the guidance for documenting Controlling Obstacles in BLOCK (5), page 7 of Appendix 6. It also maintains the consistency between conventional (Appendix 5) and area navigation (RNAV) (Appendix 6) departure procedures when completing descriptions of controlling obstacles on all 8260-15 series forms.

4.   DISPOSITION OF TRANSMITTAL. This transmittal sheet must be retained until a new directive cancels it.

PAGE CONTROL CHART

Remove Pages	Dated	Insert Pages	Dated
APPENDIX 5		APPENDIX 5	
3 and 4	8/5/05	3	4/21/06
		4	8/5/05
19 and 20	8/5/05	19	8/5/05
		20	4/21/06

Remove Pages	Dated	Insert Pages	Dated
APPENDIX 6 7 and 8	8/5/05	APPENDIX 6 7 8	4/21/06 8/5/05

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**INSTRUCTIONS FOR COMPLETING
FAA FORM 8260-15A
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)**

PAGE 1.

Develop a separate Form 8260-15A for each airport with approved instrument procedures. If all runways are standard, then state "STANDARD." The form must encompass all runways for that airport. Use table 1 as a guide to initiate the required "Action" to support the "Situation" for a specific airport.

BLOCK (1). TAKEOFF MINIMUMS.

NOTE: Do not list Take-off Minimums for the runway(s) served by a graphic default Obstacle DP as described in BLOCK 2(1e) instructions.

1. List the runway(s) that are not authorized for IFR departures. If none of the actions listed in table 1 are feasible, or if another reason(s) precludes DP development (noise abatement, environmental, etc.), an IFR departure must not be authorized.

    Examples:

        RWY 27, NA - Obstacles.
        RWY 35, NA - Environmental.
        RWY 17, NA - Obstacles and noise abatement.

Followed by:

2. List the runway(s) authorized standard takeoff minimums.

    Example:

        RWY 09, 31 Standard.

Followed by:

3. List the runway(s) that have any *deviations* from standard minimums and/or restrictions:

    Example:

        TAKEOFF MINIMUMS: RWY 13, 400-2 or standard with minimum climb of 310 ft per NM to 900, or alternatively, with standard takeoff minimums and a normal 200 ft/NM climb gradient, takeoff must occur no later than 1,800 ft prior to departure end of runway.

    a. When obstacles in the initial climb area (ICA) cause a climb gradient to an altitude 200 ft or less above DER, before rounding, do not publish takeoff minimums or a climb gradient. Instead, identify the obstacle data by note for publication in the TAKEOFF OBSTACLE NOTES BLOCK (see BLOCK 3 for example).

    b. When obstacles 3 SM or less from DER preclude standard takeoff minimums:

NOTE: The obstacle may be within or beyond ICA extended to 3 SM.

(1)   Provide a NOTE identifying the obstacle(s) in the TAKEOFF OBSTACLE NOTES BLOCK (see BLOCK 3 for example).

(2)   Provide higher than standard takeoff minimums followed by the alternative of standard minimums with a specified climb gradient. Use standard NOTE in paragraph 3.

(3)   Identify the obstacle data in the CONTROLLING OBSTACLES BLOCK (see BLOCK 4 for example)**.**

c. **When obstacles beyond 3 SM** of DER preclude standard takeoff minimums:

(1)   Provide standard takeoff minimums with minimum climb gradient requirements. Use standard NOTE in paragraph 3.

(2)   Provide higher than standard takeoff minimums to allow a visual climb over the airport (VCOA). Use standard NOTE in the following format: RWY XX, (CIG/VSBY) for climb in visual conditions.

Example:

TAKEOFF MINIMUMS: RWY 9, Standard with minimum climb of 310 ft per NM to 1400, or alternatively, with standard takeoff minimums and a normal 200 ft/NM climb gradient, takeoff must occur no later than 1,800 ft prior to departure end of runway or 1100-2½ for climb in visual conditions.

BLOCK (2). DEPARTURE PROCEDURE.

1.   **When a specific departure route is necessary,** provide the complete text, by runway, for required DPs.

a. **When a DP routing is required** and VOR or TACAN is used to define the route, use the format: **RWY 9 - CLIMBING LEFT TURN TO INTERCEPT ABC VORTAC R-310 TO 6000 BEFORE PROCEEDING ON COURSE.**

b. **When a DP routing is required** and NDB is used to define the route, use course to or bearing from the NDB; e.g., **RWY 35 - CLIMB HEADING 350…, THEN CLIMBING RIGHT TURN ON 020 BEARING FROM ABC NDB TO 6000 BEFORE PROCEEDING ON COURSE;** or **RWY 35 - CLIMB HEADING 030…, THEN ON 015 BEARING FROM ABC NDB TO 4000 BEFORE PROCEEDING ON COURSE.**

c. **When a ODP routing permits a climb within a sector,** define the courses to remain within in a clockwise fashion; e.g., **RWY 12 – CLIMB ON A HEADING BETWEEN 061° CW TO 228° FROM DEPARTURE END OF RUNWAY, OR MINIMUM CLIMB OF 260 ft PER NM TO 8700 FOR ALL OTHER COURSES.**

d. **When a DP routing is required** and a localizer course is used to define the route, use magnetic direction of localizer course to be flown; e.g., **RWY 5 - CLIMB ON I-XXX LOCALIZER NE COURSE (047 DEGREES) TO 3000 BEFORE TURNING.**

gradient, takeoff must occur no later than 1,800 ft prior to departure end of runway. ATC climb of 310′ per NM to 4000."

    c. **"TAKEOFF MINIMUMS: RWY 36, ATC climb of 340′ per NM to 8000."**

NOTE: The option to reduce available runway length for takeoff is only applicable to obstacle driven climb gradients and not applied for ATC climb gradients.

BLOCK (4). TAKEOFF OBSTACLE NOTES.

1. Enter a NOTE regarding obstacles found as a result of applying Table 1, Situation 2 action and Situation 3, action "A."

2. The note must include the runway affected and inform the pilot of the obstacle(s) type and location relative to the DER, and height (AGL/elevation (MSL). When there are obstacles on both sides of the runway centerline extended, note the most significant obstacles left and right of the runway centerline. Phrases such as "multiple antennas, numerous trees, etc." are acceptable. Specify distances in the nearest .1 NM increments (specify distances less than 1 NM in feet). Use standard NOTE:

    NOTE: RWY 35, trees 1,280′ from DER, 120′ left of centerline, 50′ AGL/1,527′ MSL.

    NOTE: RWY 35, Building 2.1 NM from DER, 160′ left of centerline, 350′ AGL/1,927′ MSL.

    NOTE: RWY 17, multiple buildings 500′ from DER 350′ right of centerline, 50′ AGL/1,107′ MSL. Antenna 6,000′ from DER, 1,235′ left of centerline, 200′ AGL/1,257′ MSL.

    NOTE: RWY 27, multiple trees, and antennas beginning 500′ from DER, 350′ right of centerline, up to 110′ AGL/1,307′ MSL.

3. These obstacle NOTES must be published by charting agents.

BLOCK (5). CONTROLLING OBSTACLES.

1. **Document the controlling obstacle(s)** found as a result of applying Table 1, Situation 3 and/or Situation 4.

NOTE: For all DPs, the controlling obstacle is that obstacle which, having penetrated the 40:1 Obstacle Clearance Surface (OCS), causes the most adverse climb gradient and/or ceiling and visibility to be published.

2. Document the controlling obstacle(s) when development of a departure routing is required. This documentation must include those (avoided) obstacles that forced the development of a departure route. This information will not be charted on the procedure.

3.   Use the following format to list the runway affected, elevation and type of obstacle, the coordinates to the nearest 0.01 second; e.g., **"RWY 32: 2,049 MSL Terrain 341548.01N/ 0862101.05W."**

(See – Form 8260-15A, Block 4)

<u>**BLOCK (6). FIXES AND/OR NAVAIDs.**</u> Enter only those fixes and/or NAVAIDs for which charting is requested but is not included in the DP route description of the departure or transition routes.

<u>**BLOCK (7). DP NAME.**</u> Enter name of departure procedure. For example: the CATHEDRAL SEVEN DEPARTURE is entered as CATHEDRAL.

<u>**BLOCK (8). NUMBER.**</u> Enter departure procedure number (spelled out); e.g. EIGHT.

<u>**BLOCK (9). DP COMPUTER CODE.**</u> Enter computer identification code furnished by ATC (see appendix 2).

<u>**BLOCK (10). SUPERSEDED NUMBER.**</u> Departure procedure number (spelled out) superseded by this procedure. Enter "None" for a new procedure.

<u>**BLOCK (11). DATED.**</u> Date of superseded procedure. Format: DD MMM YY.

<u>**BLOCK (12). EFFECTIVE DATE.**</u> Leave blank. The effective date will normally be added by NFDC. Enter an effective date only when a specific effective date is required; e.g., Mag Var rotation.

PAGE 2.

<u>***BLOCK (13). AIRPORTS SERVED***</u>. List the official airport name(s), city, and 2-letter state code served by the departure procedure.

   NOTE: An obstacle DP may only serve one airport.

<u>**BLOCK (14). LOST COMMUNICATIONS PROCEDURES.**</u> ATC is responsible for determining the need and content of lost communications instructions. Leave blank when procedures are the same as in 14 CFR Part 91.185 (standard).

<u>**BLOCK (15). COMMUNICATIONS.**</u> Enter name of radio **"primary"** communications to be charted; e.g., ATIS, CTAF, Clearance Delivery, Departure Control, etc. Specify frequency only if different than what is currently published for the facility, or unique to the procedure.

<u>**BLOCK (16). ADDITIONAL FLIGHT DATA.**</u> List any additional charting instructions, items essential to clarify charting or information a specialist has determined needs charting as other than a NOTE. Examples of data may include: terrain features, airports, Special Use Airspace (SUA), holding patterns, or takeoff and departure obstacles; e.g., **Chart _____ MOA; Chart holding at ICT VORTAC, Hold NE, RT, 222.03 Inbound.** Ensure that the accompanying Form 8260-2 contains the appropriate charting instructions for holding patterns supporting the departure procedure.

BLOCK (5). CONTROLLING OBSTACLES.

1. **Document the controlling obstacle(s)** found as a result of applying Table 1, Situation 3 and/or Situation 4.

> *NOTE: For all DPs, the controlling obstacle is that obstacle which, having penetrated the 40:1 Obstacle Clearance Surface (OCS), causes the most adverse climb gradient and/or ceiling and visibility to be published.*

2. Document the controlling obstacle(s) when development of a departure routing is required. This documentation must include those (avoided) obstacles that forced the development of a departure route. This information will not be charted on the procedure.

3. **Use the following format** to list the runway affected, elevation and type of obstacle, the coordinates to the nearest 0.01 second; e.g., **"RWY 32: 2,049 MSL Terrain 341548.01N/ 0862101.05W."**

BLOCK (6). FIXES AND/OR NAVAIDs. Enter only those fixes and/or NAVAIDs for which charting is requested but is not included in the textual description of the departure or entered in the transition route data.

BLOCK (7). DP NAME. Enter name of departure procedure. For example: the CATHEDRAL SEVEN DEPARTURE is entered as CATHEDRAL; the JONES SIX DEPARTURE (RNAV) is entered as JONES.

BLOCK (8). NUMBER. Enter departure procedure number (spelled out); e.g. EIGHT.

BLOCK (9). DP COMPUTER CODE. Enter computer identification code furnished by ATC (see appendix 2).

BLOCK (10). SUPERSEDED NUMBER. Departure procedure number (spelled out) superseded by this procedure. Enter "NONE" if a new procedure.

BLOCK (11). DATED. Date of superseded procedure. Format: DD MMM YY.

BLOCK (12). EFFECTIVE DATE. Leave blank. The effective date will normally be added by NFDC. Enter an effective date only when a specific effective date is required; e.g., Mag Var rotation.

PAGE 2.

BLOCK (13). AIRPORTS SERVED. Except for RDVAs, RNAV DPs may only serve one airport. List the airport, city, and 2-letter state code served by the departure procedure.

BLOCK (14). LOST COMMUNICATIONS PROCEDURES. ATC is responsible for determining the need and content of lost communications instructions. Leave blank when procedures are the same as in 14 CFR Part 91.185 (standard).

BLOCK (15). COMMUNICATIONS. Enter name of radio communications to be charted; e.g., ATIS, CTAF, Clearance Delivery, Departure Control, etc. Specify frequency only if different than what is currently published for the facility, or unique to the procedure.

BLOCK (16). ADDITIONAL FLIGHT DATA. List any additional charting instructions, items essential to clarify charting or information a specialist has determined needs charting as other than a NOTE. Examples of data may include: terrain features, airports, Military Operating Areas (MOA), holding patterns, or takeoff and departure obstacles; e.g., **Chart: _____ MOA; Chart: holding pattern at (location).** Document the MEA/MOCA for the segment between the IF and Basic DP fix on RNAV Radar departure procedures as follows: **Chart: MEA/MOCA from (RNAV IF) to (Basic DP Fix), (Altitude).** Ensure that the accompanying Form 8260-2 contains the appropriate charting instructions for holding patterns supporting the departure procedure. Place the reference (departure airport) magnetic variation of record used to develop the procedure in this BLOCK. Include the point of reference and the epoch year. Example: "REFERENCE MAG VAR: KFCR 2W EPOCH YR:00"

DME assessment (Enter one of the following):

1. "DME/DME Assessment: SAT (RNP 1.0 or 2.0 as appropriate)." Indicates a successful assessment to the RNP value specified.

2. "DME/DME Assessment: UNSAT (RNP 1.0), SAT (RNP 2.0)." Indicates an unsuccessful assessment to RNP 1.0, but returned a successful assessment to RNP 2.0.

3. "DME/DME Assessment: UNSAT." Indicates an unsuccessful assessment to RNP 2.0.

4. "DME/DME Assessment: NOT CONDUCTED."

If the DME/DME assessment indicates "UNSAT" or "NOT CONDUCTED," the note "GPS Required" must be entered in BLOCK (3).

NOTE: The DME/DME assessment process is covered in separate guidance.

BLOCK (17). CONTINUATION. Use this area of the sheet to complete any data BLOCKS from previous pages. Indicate BLOCK number and title being contained. Additionally, use this block to describe the Pilot Navigation Area (PNA) for RNAV Radar departures. The description will be in the following manner:

PILOT NAVIGATION AREA:

**7 NM ARC CENTERED ON WAYPT (IF), CW
FROM: POINT A (BEARING 015 DEGREES TO WAYPT)
TO: POINT B (BEARING 105 DEGREES TO WAYPT)
MINIMUM ALTITUDE - 4000**

NOTE: The illustration in figure 1 is provided as an example of what this text is describing. An illustration may be provided but is not required on the form.