



**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

National Policy

**ORDER
8260.46K**

Effective Date:
07/01/2024

SUBJ: Departure Procedure (DP) Program

This order provides the policy, guidance, and standardization for initiating, designing, processing, and managing the departure procedure program in the United States and its territories.

A handwritten signature in cursive script, reading "Jackie L. Black Jr.", is positioned above the typed name.

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Chapter 1. General Information

Section 1-1. Basic

1-1-1. Purpose of this order. To manage the Departure Procedure (DP) program, this order provides policy, guidance, and standardization for initiating, designing, documenting, and processing for DPs prescribed under Title 14, Code of Federal Regulations (14 CFR) part 97 as well as other DPs not specified under part 97. This order also contains guidance that is pertinent to 14 CFR parts 1, 71, 77, 91, 95, 121, 125, 129, 135, and 171.

1-1-2. Audience. All personnel who are responsible for DP design, documentation, and processing.

1-1-3. Where you can find this order. You can find this order on the [FAA's website](#).

1-1-4. What this order cancels. Order 8260.46J, Departure Procedure (DP) Program, dated 07/12/2022.

1-1-5. Explanation of changes. Significant areas of new direction, guidance, policy, and criteria are as follows:

a. Administrative. Corrections have been made throughout the order.

b. Updated guidance.

(1) Guidance for the initial climb area has been updated throughout the order.

(2) Minimum en route instrument flight rules altitude and minimum obstruction clearance altitude documentation requirements have been updated throughout the order.

(3) Updated magnetic variation documentation requirements.

(4) Updated requirements for FAA Form 8260-15A, Takeoff Minimums and Textual Departure Procedures (DP), at private-use civil airports/heliports/seaplane bases not open to the public.

1-1-6. Word Meanings. Word meanings as used in this order:

a. Must. This means that application of the criteria is mandatory.

b. Should. This means that application of the criteria is recommended.

c. May. This means that application of the criteria is optional.

Chapter 2. Responsibilities

Section 2-1. DP Guidelines

2-1-1. General. Instrument flight rules (IFR) DPs may be designed and published for all runways authorized by the approving authority. There are two types of DPs: those designed to assist pilots in obstruction avoidance [referred to as obstacle departure procedure (ODP)] and those designed to communicate air traffic control (ATC) clearances [referred to as standard instrument departure (SID)]. Design, document, process, and chart helicopter point-in-space (PinS) departures as a SID [see appendix F].

a. Instrument flight procedures (IFPs) must be designed, documented, and processed in accordance with these standards; however, obstacles, navigation information, or traffic congestion may require special consideration, where justified by operational requirements. When IFPs cannot be designed/documented in accordance with applicable standards, apply Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS), paragraph 1-4-2.

b. Where IFR DPs are authorized by the approving authority, conduct a diverse departure assessment (see Order 8260.3). Do not conduct a diverse departure assessment for helicopter departures. Helicopter IFR diverse departures are not authorized; visual or visual flight rules (VFR) departures to an initial departure fix (IDF) may be authorized.

c. When IFR DPs are not authorized due to a diverse assessment, identify runway/helipad and reason on FAA Form 8260.15A, Takeoff Minimums and Obstacle Departure Procedures (ODP), [see appendix D, section 1, paragraph 2.e.(1)].

d. Use the term “Legacy” as follows:

(1) When text in this order uses the word “Legacy” it authorizes policy/guidance associated with a previous standard that is considered valid until the current standard is implemented for all DPs.

(2) When “Legacy” is used in a sentence, the sentence is considered legacy policy/guidance, not the whole paragraph.

(3) When “Legacy” is used for the title of a figure/table, it applies to the whole figure/table.

e. Order 8260.3 defines initial climb area (ICA) criteria as follows:

(1) An ICA without sections (see Order 8260.3, figure 13-1-3) identified using the term “Legacy.”

(2) An ICA with sections 1 and 2 (see Order 8260.3, figure 13-1-4).

f. Apply “Legacy” criteria as follows:

(1) At airports where only an ODP is published or a new ODP is being added (No SID/diverse vector areas (DVAs) is published), the ODP must not be amended/designed using “Legacy” criteria.

(2) At airports with a published ODP where SIDs/DVAs are being added, both must not be designed using “Legacy” criteria (see paragraph 2-1-1.d).

(3) At airports where SIDs/DVAs and ODP are published or new SIDs/DVAs are being added, the design must use the legacy criteria unless requested by a proponent (see paragraph 2-1-6.b.).

(4) When not implementing the legacy ICA criteria, all DPs and DVAs, both textual and graphic, at the airport must be updated in the same publication cycle. For example, when requested, the legacy ICA is not used for an original SID at the primary airport, apply the same ICA criteria to all runways servicing that airport. However, other airports served by the original SID may use the legacy ICA as requested by the proponent.

g. All DPs and DVAs at an airport must use the same ICA criteria. When adding or amending, all must be charted in the same publication cycle.

h. When designing new or amending DPs, ensure all DPs are updated when they share an identical segment. For example, when evaluating the ICA of a new SID and a low, close-in obstacle, ceiling/visibility, or a climb gradient (CG) change(s), as applicable, then ensure the other DPs at the same airport are updated in the same publication cycle as well.

i. Document the ICA criteria and the Order 8260.3 version, including the change when applicable, used for the DP in the remarks section of the applicable FAA Form 8260-15 (see paragraph 2-1-1.f.(4)). When a DP serves multiple airports, document the airport identification (ID) associated with the ICA design used for the procedure design and evaluation.

Example:

Single Airport: “ORDER 8260.3X – CHG X, LEGACY ICA USED FOR DESIGN AND EVALUATION.” or “ORDER 8260.3X – CHG X, ICA USED FOR DESIGN AND EVALUATION.”

Example:

Multiple airports: “ZZZ: ORDER 8260.3X – CHG X, LEGACY ICA USED FOR DESIGN AND EVALUATION; XXX, YYY: ORDER 8260.3X – CHG X, ICA USED FOR DESIGN AND EVALUATION.”

j. When documentation requires the airport ID, define the FAA airport ID as derived from National Airspace Resource (NASR) and, when applicable, the ICAO ID when available for locations outside the contiguous United States. Separate the airport ID and the ICAO ID with a slash, even though charting may use parentheses.

Example:

“XXX” or “ABC/PDEF”

k. When documentation requires a signature, document the responsible individual as outlined below, their organization's office identification, and the date signed on the applicable line of the appropriate FAA Form 8260-15.

(1) **FLIGHT INSPECTED BY:** Enter the name of the pilot who conducted the flight inspection/validation.

(2) **DEVELOPED BY:** Enter the individual who was responsible for the design of the procedure being submitted.

(3) **APPROVED BY:** Enter the name of the organization's individual responsible for the approval of the procedure being submitted. The signature in this block certifies that the procedure:

(a) Was developed in accordance with appropriate policies, directives, standards, and criteria.

(b) Is approved for further processing.

l. To assist pilots with identifying the ICA vs legacy ICA, the charted procedure must bold/underline certain entries as follows (do not follow this for FAA Form 8260-15 series documentation; this is for charting only):

(1) When applying legacy ICA design criteria, do not bold/underline entries (even when the applicable FAA Form 8260-15 may).

(2) Textual: When applying ICA design criteria, bold/underline as indicated in the following examples as applicable:

Example:**TAKEOFF MINIMUMS:**

Rwy (number):

DEPARTURE PROCEDURE:

Rwy (number):

VCOA:

Rwy (number):

TAKEOFF OBSTACLE NOTES:

Rwy (number) Low, Close-in Obstacles:
Rwy (number) Takeoff Minimums Obstacles:

(3) Graphic: Chart takeoff obstacle notes only for graphic ODPs. When applying ICA design criteria, bold/underline as indicated in the following examples as applicable:

Example:

TAKEOFF MINIMUMS:

Rwy (number):

TAKEOFF OBSTACLE NOTES:

Rwy (number) Low, Close-in Obstacles:
Rwy (number) Takeoff Minimums Obstacles:

In the departure route description section:

TAKEOFF RUNWAY (number): or TAKEOFF ALL RUNWAYS:
VCOA RUNWAY (number): or VCOA ALL RUNWAYS:

2-1-2. Obstacle Departure Procedures (ODP). Design an ODP and/or non-standard takeoff minimums when obstructions penetrate the 40:1 departure obstacle clearance surface (OCS) as described in Order 8260.3. The following rules apply to ODPs:

a. The primary goal in ODP design is to retain standard takeoff minimums with standard CG to the extent possible.

b. Establish only one ODP for a runway.

(1) This will be considered the default IFR DP for a given runway and is intended for pilot awareness and use in the absence of ATC radar vectors or SID assignment.

(2) For special DPs, ODPs are not required for private-use civil airports/heliports/seaplane bases not open to the public provided the following is applied:

(a) This applies only when the ODP and SID use the same diverse assessment.

(b) If a DP is requested and an ODP is not required by the airport/heliport/seaplane base owner, a SID must be designed as the default DP.

(c) Do not reference the graphic SID on FAA Form 8260-15A. An FAA Form 8260-15A is not required since FAA Form 8260-15B, Graphic Departure, is used.

(d) Do not reference FAA Form 8260-15A on FAA Form 8260-7A, Special Instrument Approach Procedure, for approaches. The obstacles must be listed on the SID.

(e) The SID documentation must contain all low, close-in obstacles and associated minimums with CGs as applicable on FAA Form 8260-15B.

(f) FAA Form 8260-7B will contain a note for the SID and all approaches stating an ODP is not published and all departure information and minimums are listed on the SID.

(3) Do not publish text that allows an option to use a SID or alternate maneuver assigned by ATC, e.g., “CLIMB RUNWAY HEADING TO 1200 BEFORE TURNING OR USE MANCHESTER DEPARTURE” or “TURN RIGHT, CLIMB DIRECT ABC VOR OR AS ASSIGNED BY ATC.”

c. Depict an ODP either textually or graphically within the following guidelines.

(1) Textual ODP. A relatively simple ODP may be published textually unless a graphical depiction is required for clarity.

(2) A graphic depiction is required if any of the following conditions exist:

(a) More than one turn (“climbing right turn on radial R-xxx” is considered two turns);

(b) More than one altitude change;

(c) More than one speed restriction;

(d) A DME ARC or holding is part of the departure instructions.

(3) The decision to graphically publish ODPs when not required by this order rests with the service provider. When determining the need for a graphic DP, the service provider must, in addition to the textual DP restrictions noted above, consider:

(a) The number of ground-based navigational aids (NAVAIDs) and fixes;

(b) Whether graphical depiction will enhance pilot comprehension of the procedure, and

(c) The proximity and effect of precipitous or significant terrain.

(4) Graphic ODP. Complex ODPs are those that require a visual presentation to communicate the departure instructions clearly and desired flight paths. If the ODP is depicted graphically, it must be clearly stated on FAA Form 8260-15A in the Departure Procedure section, e.g., “USE JONES DEPARTURE.”

d. A graphic ODP may serve one or more runways at a single airport; e.g., a graphic departure may contain initial departure instructions for both runways 9 and 27 on the same chart.

e. Design ODPs with primary emphasis given to using the least onerous method (see appendix A definition) to get the aircraft to the en route structure or at an altitude that will allow random (diverse) IFR flight while accommodating commonly used routings out of each airport to

the maximum extent practicable. Procedure designers must consider the impact on local ATC operations when using the phrases “BEFORE TURNING” or “BEFORE PROCEEDING ON COURSE.” ODPs must be coordinated with ATC to ensure flight safety and compatibility with the local operating environment and the en route structure.

f. ODPs may include a CG when required for obstruction avoidance and/or lateral navigation (LNAV) engagement [see Order 8260.58, U.S. Standard for Performance Based Navigation (PBN) Instrument Procedure Design, paragraph 5-1-1.c.(2)]; however, CGs, speed, and/or altitude restrictions solely for ATC purposes are not allowed.

g. Naming conventions and computer code assignments for graphic ODPs must follow the guidance specified for SIDs in paragraph 3-1-3 to ensure controller awareness of the route flown.

h. Transition routes are not permitted on ODPs.

i. When applicable, design ODPs using ground-based NAVAIDs, area navigation (RNAV), or dead reckoning (DR) guidance wherever possible. Do not specify radar vectors for navigation guidance in ODP design. At those locations served by RNAV approaches exclusively, every effort must first be made to design an ODP that accommodates conventional [preferably very high frequency omni-directional range (VOR)] navigation systems. If this effort fails, design an RNAV ODP.

(1) When a visual climb over airport (VCOA) has been established, publish a note that requires the pilot to obtain approval from ATC with their IFR clearance when executing the VCOA (see paragraph 2-1-3.e.(3)(c)).

(2) Do not establish a VCOA in conjunction with an RNAV ODP.

(3) VCOAs must be established as required by Order 8260.3 paragraph 13-2-2.b.(4)(b) and 13-2-2.b.(5)(a) except where Flight Procedures and Airspace Group (FPAG) have approved an ATC request to opt-out. This “opt-out” option is intended for use at major metropolitan airports that experience a high volume of traffic (e.g., Los Angeles, San Francisco, New York, etc.) where permission to use a VCOA is impractical and/or impossible. ATC must consider user needs as well as the operational impact upon low-performance aircraft that must depart IFR from mountainous/obstacle-encumbered airports when deciding to submit a request to not establish a VCOA.

(4) Textual ODPs designed specifying a route must terminate at a fix/NAVAID located within the IFR en route structure and/or at an altitude that will allow random (diverse) IFR flight.

(5) Design graphic ODPs to terminate at a fix/NAVAID located within the IFR en route structure and at the appropriate altitude for route of flight.

(6) Publish a helicopter PinS DP as a SID. ODPs are not authorized (see appendix F).

2-1-3. ODP Documentation for Specific Design Combinations (see appendix A, section 1, paragraph 2. Background). Document an ODP and/or standard/non-standard takeoff minimums based on the diverse departure assessment application as described in Order 8260.3. The

following guidance/policy applies to ODP takeoff minimums, obstacles (takeoff/low, close-in), and route documentation (see as applicable, examples in appendix D, sections 1 and 2, examples in appendix E, section 1, and background in appendix A).

a. General Guidance/Policy.

(1) Legacy takeoff obstacle notes. When takeoff obstacle notes are required, using this paragraph, document using a note identifying the obstacle(s) type, location relative to departure end of runway (DER)/extended runway centerline (RCL), height (AGL), and elevation (MSL) (see appendices D and E for recommended publication text available). Do not apply paragraph 2-1-3.a.(3).

(2) Adverse assumption obstacle (AAO). Do not document/publish an AAO as a “takeoff obstacle” because pilots are not familiar with the AAO concept. However, publishing a ceiling and visibility will allow for those situations where the CG cannot be achieved and still afford the pilot the opportunity to visually acquire and avoid any obstruction that could have been built without notice to the FAA.

(3) Takeoff obstacle notes. Document low, close-in obstacles separately from takeoff minimums obstacles; do not group them (see Order 8260.3, paragraph 13-1-1.d.(1) and (2) regarding the terms low, close-in obstacles and takeoff minimums obstacles).

(4) Document takeoff obstacle notes for textual ODPs on FAA Form 8260-15A and for graphic ODPs on FAA Form 8260-15B.

b. No obstacle penetrations. When diverse departure obstacle assessment does not identify any obstacle penetrations, standard takeoff minimums apply. Document “...STANDARD.” in the Takeoff Minimums section of FAA Form 8260-15A.

c. Obstacle penetrations within ICA are identified as low, close-in obstacles. When a diverse departure obstacle assessment identifies low, close-in obstacles, document the obstacles in the Takeoff Obstacles Notes section of the applicable FAA Form 8260-15A/B.

(1) For low, close-in obstacle penetrations 35 feet and below, document the following (see example 1):

(a) When all low, close-in obstacles penetrate by 35 feet and below document as: “...OBSTACLES 35 FT AND BELOW...”

(b) Based on the evaluation, follow the obstacle(s) description with a height to cross DER that clears all takeoff obstacle(s) (low, close-in) with the phrase “...CROSSING DER 34 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES...”

(2) Document the obstacle(s) that penetrate the OCS more than 35 feet as follows (see example 2):

(a) List obstacle(s) type as applicable. When identifying obstacles, be as descriptive as reasonably possible so as to provide the pilot a clear understanding of what to prepare and/or

look for; e.g., instead of just saying “POWER POLES,” it would be more helpful to use the descriptor of “POWER LINES” in some instances. Another example would be instead of just saying “TERRAIN,” if applicable, the use of “RIDGELINE” or “BLUFF” would provide a clearer picture. Phrases such as “MULTIPLE ANTENNAS, NUMEROUS TREES, etc.” are acceptable.

(b) List the obstacle(s) distance (inner/outer limits from DER) as applicable.

Distance will be indicated with 500 feet or quarter nautical mile (NM) intervals from DER to a maximum of 2.6 NM as follows:

(c) Describe the obstacle(s) inner limits less than 500 feet from DER as “WITHIN 500 FT FROM DER”; no outer limit is required.

(d) For a single obstacle, no outer limit is required. Round the distance from DER up as described in (e) below.

(e) For more than one obstacle, define the inner and outer limits in relationship to the DER. The inner limit must start at the closest obstacle to DER rounded down (e.g., 0 – 499 is described as “WITHIN 500 FT,” 500 – 999 feet rounds down to 500 feet, 1000-1518 feet rounds down to 1000 feet, 1519 - 3037 feet rounds down to 1/4 NM, ...2.5 NM to 2.6 NM rounds down to 2.5 NM). The outer limit of the obstacles must use the furthest obstacle distance from DER, rounded up to 2.6 NM maximum (e.g., 500 – 1000 feet rounds up to 1000 feet, 1001 - 1500 feet rounds up to 1500 feet, 1501 - 1519 rounds up to 1/4 NM, 1520 - 3037 feet rounds up to 1/2 NM, ... more than 2.5 NM rounds to 2.6 NM). Specify distances less than 1 NM in feet until 1/4 NM, then use 1/4 NM increments to 1 NM. Specify distances 1 NM or greater to the nearest whole and tenth of a NM. Describe the limits using the words “BEGINNING” and “EXTENDING TO.”

(f) Document the obstacle(s) horizontal limits in relationship to the extended centerline of the runway. Use one of the following descriptions, as applicable: “LEFT OF CENTERLINE,” “RIGHT OF CENTERLINE,” “LEFT AND RIGHT OF CENTERLINE,” “CROSSING CENTERLINE,” “LEFT AND CROSSING CENTERLINE,” “RIGHT AND CROSSING CENTERLINE,” or “LEFT, RIGHT, AND CROSSING CENTERLINE.” Obstacles +/- 100 feet left or right of centerline are considered crossing centerline.

(g) Based on the evaluation document, the MSL elevation and the height above DER are as follows: single obstacle - “... 144 FT MSL, 64 FT ABOVE DER...” or multiple obstacles - “...UP TO 5176 FT MSL, 77 FT ABOVE DER...”

(h) Based on the evaluation, apply paragraph 2-1-3.c.(1)(b).

(3) When both low, close-in obstacle penetrations 35 feet and below and penetrations by more than 35 feet within the ICA are present, only document the obstacles more than 35 feet (see example 3).

Example 1: Low, close-in obstacle penetrations 35 feet and below within the ICA.

TAKEOFF OBSTACLE NOTES:

RWY 8 LOW, CLOSE-IN OBSTACLES: OBSTACLES 35 FT AND BELOW. CROSSING DER 5 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

Example 2: Low, close-in obstacle penetrations more than 35 feet within the ICA.

TAKEOFF OBSTACLE NOTES:

RWY 8 LOW, CLOSE-IN OBSTACLES: TREES AND SIGN BEGINNING 1000 FT FROM DER EXTENDING TO 3/4 NM, CROSSING CENTERLINE, UP TO 346 FT MSL, 128 FT ABOVE DER. CROSSING DER 52 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

Example 3: Both low, close-in obstacle penetrations 35 feet and below and penetrations by more than 35 feet within the ICA.

TAKEOFF OBSTACLE NOTES:

RWY 8 LOW, CLOSE-IN OBSTACLES: TREES AND SIGN BEGINNING 1000 FT FROM DER EXTENDING TO 3/4 NM, CROSSING CENTERLINE, UP TO 658 FT MSL, 128 FT ABOVE DER. CROSSING DER 52 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

d. Obstacle penetrations within ICA other than low, close-in obstacles. When diverse departure obstacle assessment identifies penetrating obstacles inside the ICA (other than low, close-in obstacles), document applicable takeoff obstacle notes and minimums in the Takeoff Obstacles Notes and the Takeoff Minimums sections of the applicable FAA Form 8260-15A/B.

(1) Takeoff Obstacle Notes (other than low, close-in): document takeoff minimums obstacle notes (both obstacle penetrations 35 feet and below and penetrations by more than 35 feet) using the same format as paragraph 2-1-3.c.(2) except end the phrase in paragraph 2-1-3.c.(1)(b) with "...CLEARS TAKEOFF MINIMUMS OBSTACLES..." (see example 1).

Example 1: Takeoff minimums obstacle penetrations only in ICA other than low, close-in (all obstacles penetrate 35 feet and below).

TAKEOFF OBSTACLE NOTES:

RWY 8 TAKEOFF MINIMUMS OBSTACLES: TOWER 2.6 NM FROM DER, LEFT OF CENTERLINE, 2395 FT MSL, 391 FT ABOVE DER. CROSSING DER 4 FT ABOVE DER ELEV CLEARS TAKEOFF MINIMUMS OBSTACLES.

(2) Takeoff Minimums (does not apply to low, close-in obstacles; see examples 2 and 3):

(a) When using a ceiling and visibility to see and avoid the obstacle(s), document a ceiling and visibility with the option of standard takeoff minimums and with a minimum CG to a specified fix or altitude that provides obstacle clearance with a standard CG in the following format: "...400-3 OR STANDARD WITH MINIMUM CLIMB OF 300 FT/NM TO 4300..." Identify the obstacle(s) on which the published ceiling and visibility are based in the Controlling Obstacles section.

(b) Document a DER crossing height option in takeoff minimums, which clears all penetrating takeoff minimum obstacles based on 200 ft/NM CG in the following format: "...CROSSING DER 66 FT ABOVE DER ELEV CLEARS TAKEOFF MINIMUMS OBSTACLES..." Identify the obstacle(s) on which the published DER crossing height is based in the Controlling Obstacles section.

(c) When a reduced takeoff runway length is used to mitigate obstacles [all must penetrate by 35 feet and below (excluding low, close-in)], document in takeoff minimums an option which clears all penetrating takeoff minimums obstacles in the following format: "...ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT/NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1800 FT PRIOR TO DER..."

Example 2: Takeoff minimums obstacle penetrations only in ICA other than low, close-in (all obstacles penetrate 35 feet and below).

TAKEOFF MINIMUMS:

RWY 8: 400-3 OR STANDARD WITH MINIMUM CLIMB OF 204 FT/NM TO 1200 OR STANDARD AND CROSSING DER 35 FT ABOVE DER ELEV CLEARS TAKEOFF MINIMUMS OBSTACLES. ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT/NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1300 FT PRIOR TO DER.

Example 3: Takeoff minimums obstacle penetrations only in ICA other than low, close-in (obstacles penetrate by both 35 feet and below, and more than 35 feet).

TAKEOFF MINIMUMS:

RWY 8: 400-3 OR STANDARD WITH MINIMUM CLIMB OF 204 FT/NM TO 1200 OR STANDARD AND CROSSING DER 67 FT ABOVE DER ELEV CLEARS TAKEOFF MINIMUMS OBSTACLES.

e. Obstacle penetrations outside of ICA. When diverse departure obstacle assessment identifies penetrating obstacles outside the ICA, document the textual route/sector or graphic route under the Textual Departure Procedure Section (FAA Form 8260-15A) or DP Route Description Section (FAA Form 8260-15B) and the takeoff minima in the Takeoff Minimums Section on the applicable FAA Form 8260-15A/B as follows (see examples 1, 2, and examples in appendix D, sections 1 and 2):

(1) Document a textual route/sector or graphic route as follows: "...RWY 8: CLIMBING LEFT TURN HEADING 330.01 AND ABC VOR/DME R-318 TO VIPER..." or "... RWY 12: CLIMB ON A HEADING BETWEEN 061.10 CW TO 228.08 FROM DEPARTURE END OF RUNWAY..." or "...RWY 8: MINIMUM CLIMB OF 260 FT/NM TO 8700 FOR HEADINGS 229.03 CW TO 300.32..."

(2) Document a minimum CG to a specified fix or altitude that provides obstacle clearance to allow standard takeoff minima as follows: "...RWY 8: STANDARD WITH MINIMUM CLIMB OF 228 FT/NM TO 2200..."

(3) Document a minimum CG, ceiling and visibility, and instructions for a visual climb over airport (VCOA) in the takeoff minimums section of the applicable FAA Form 8260-15A/B as follows (see appendix D, section 1, paragraph 2.i.(4) for controlling obstacle documentation):

(a) When documenting a VCOA in the takeoff minimums, describe the ceiling and visibility in the following format: "...[CIG (value)-VSBY (value)] FOR VCOA..."

(b) Document VCOA instructions in the Visual Climb Over Airport section of FAA Form 8260-15A or the DP route description section of FAA Form 8260-15B as applicable.

(c) Documentation must contain a list of associated runways ("VCOA RWY 18, 36:...") or the statement "VCOA ALL RWYS:...", followed by "...OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE...", then the VCOA instructions.

(d) The VCOA must include instructions to climb in visual conditions to cross a location/fix at or above the climb to altitude as follows:

1. For a VCOA diverse, include the instruction, "...BEFORE PROCEEDING ON COURSE..." following the climb to altitude as follows: "...CLIMB IN VISUAL CONDITIONS TO CROSS CASTLE AIRPORT AT OR ABOVE 2200 BEFORE PROCEEDING ON COURSE."

2. For a VCOA route departure, specify the intended direction of flight to cross the first fix of the route, followed by the climb to altitude, and then specify the route (see Order 8260.3 figure 13-4-5) as follows: "...CLIMB IN VISUAL CONDITIONS TO CROSS PSTOL EASTBOUND AT OR ABOVE 5000, THEN ON LEX VOR/DME R-281 TO LEX." Detail the makeup of any fix specified in the VCOA instructions that is not published on a en route or graphic ODP/SID chart as follows: "...CLIMB IN VISUAL CONDITIONS TO CROSS PEETE (AGC 040/16.01 DME) NORTHBOUND AT OR ABOVE 2000...").

Example 1: FAA Form 8260-15A, Obstacle penetration(s) outside ICA.

TAKEOFF MINIMUMS:

RWY 8: STANDARD WITH MINIMUM CLIMB OF 251 FT/NM TO 1600, OR 1300-3 FOR VCOA.

TEXTUAL DEPARTURE PROCEDURE:

RWY 8: CLIMB ON HEADING 082.18 TO 1200 BEFORE TURNING LEFT.

VISUAL CLIMB OVER AIRPORT:

RWY 8: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS METRO AIRPORT AT OR ABOVE 5000 BEFORE PROCEEDING ON COURSE.

Example 2: FAA Form 8260-15B (Graphic ODP), Obstacle penetration(s) outside ICA.

DP ROUTE DESCRIPTION:

TAKEOFF RWY 18: CLIMB ON HEADING 185.22 TO 7700, THEN CLIMBING LEFT TURN DIRECT MKM VOR/DME, THEN ON MKM R-028 TO LARST, THENCE...

TAKEOFF RWY 36: CLIMB ON HEADING 005.22 TO 7100, THEN CLIMBING RIGHT TURN ON MKM R-028 TO LARST, THENCE...

VCOA ALL RUNWAYS: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS MKM VOR/DME NORTHEASTBOUND AT OR ABOVE 8100, THEN ON MKM R-028 TO LARST, THENCE...

... CROSS LARST AT OR ABOVE MEA/MCA FOR ROUTE OF FLIGHT.

TAKEOFF MINIMUMS:

RWY 8: STANDARD WITH MINIMUM CLIMB OF 251 FT/NM TO 1600, OR 1300-3 FOR VCOA.

f. Obstacle penetrations both inside and outside of ICA. When diverse departure obstacle assessment identifies obstacle penetrations both inside and outside of ICA, apply applicable guidance in paragraphs 2-1-3.c, d and/or e based on the following:

- (1) For low, close-in obstacle penetrations, apply paragraph 2-1-3.c.
- (2) When the CG within the ICA is higher than the CG outside the ICA, apply paragraph 2-1-3.d. except document the altitude sufficient to clear all obstacles within/outside the ICA.

(3) When the CG within the ICA is lower than the CG outside the ICA, apply paragraph 2-1-3.e. except document the altitude sufficient to clear all obstacles within/outside the ICA.

Example 1: FAA Form 8260-15A: ODP with low, close-in obstacle penetrations less than 35 feet; low, close-in obstacle penetrations more than 35 feet; takeoff minimums obstacle penetrations in ICA; and obstacle penetrations outside ICA. Highest CG within ICA.

TAKEOFF MINIMUMS:

RWY 8: 300-1 3/4 WITH MINIMUM CLIMB OF 238 FT/NM TO 1800, OR STANDARD WITH MINIMUM CLIMB OF 272 FT/NM TO 1400, OR STANDARD AND CROSSING DER 42 FT ABOVE DER ELEV CLEARS TAKEOFF MINIMUMS OBSTACLES WITH MINIMUM CLIMB OF 238 FT/NM TO 1800 OR 1900-3 FOR VCOA.

TEXTUAL DEPARTURE PROCEDURES:

RWY 8: CLIMB ON HEADING 090.00 AND ABC VOR/DME R-239 TO MIATA.

VISUAL CLIMB OVER AIRPORT:

RWY 8: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS PSTOL EASTBOUND AT OR ABOVE 5000, THEN ON LEX VOR/DME R-281 TO LEX.

TAKEOFF OBSTACLE NOTES:

RWY 8 LOW, CLOSE-IN OBSTACLES: TREES, VEHICLES, AND POLES BEGINNING 500 FT FROM DER EXTENDING TO 1/2 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 1546 MSL, 114 FT ABOVE DER. CROSSING DER 54 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

RWY 8 TAKEOFF MINIMUMS OBSTACLES: TREES AND TOWER BEGINNING 3/4 NM FROM DER EXTENDING TO 1.8 NM, RIGHT OF CENTERLINE, UP TO 2456 MSL, 265 FT ABOVE DER. CROSSING DER 42 FT ABOVE DER ELEV CLEARS TAKEOFF MINIMUMS OBSTACLES.

Example 2: FAA Form 8260-15A: ODP with takeoff minimums obstacle penetration in ICA (no low, close-in obstacles noted) and obstacle penetration outside ICA. Highest CG outside ICA.

TAKEOFF MINIMUMS:

RWY 8: STANDARD WITH MINIMUM CLIMB OF 356 FT/NM TO 3500 OR 3400-3 FOR VCOA.

TEXTUAL DEPARTURE PROCEDURES:

RWY 8: CLIMBING LEFT TURN DIRECT ABC VOR/DME.

VISUAL CLIMB OVER AIRPORT:

RWY 8: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS PSTOL EASTBOUND AT OR ABOVE 5000, THEN ON LEX VOR/DME R-281 TO LEX.

Example 3: FAA Form 8260-15B (Graphic ODP), Obstacle penetration(s) inside/outside ICA (both low, close-in and takeoff obstacles). Highest CG within ICA.

DP ROUTE DESCRIPTION:

TAKEOFF RWY 18: CLIMB ON HEADING 185.22 TO 7700, THEN CLIMBING LEFT TURN DIRECT MKM VOR/DME, THEN ON MKM R-028 TO LARST, THENCE...

TAKEOFF RWY 36: CLIMB ON HEADING 005.22 TO 7100, THEN CLIMBING RIGHT TURN ON MKM R-028 TO LARST, THENCE...

VCOA ALL RWYS:

OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS MKM VOR/DME NORTHEASTBOUND AT OR ABOVE 8100, THEN ON MKM R-028 TO LARST, THENCE...

... CROSS LARST AT OR ABOVE MEA/MCA FOR ROUTE OF FLIGHT.

TAKEOFF MINIMUMS:

RWY 8: 300-1 3/4 WITH MINIMUM CLIMB OF 238 FT/NM TO 1800, OR STANDARD WITH MINIMUM CLIMB OF 272 FT/NM TO 1400, OR STANDARD AND CROSSING DER 42 FT ABOVE DER ELEV CLEARS TAKEOFF MINIMUMS OBSTACLES WITH MINIMUM CLIMB OF 238 FT/NM TO 1800 OR 1900-3 FOR VCOA.

TAKEOFF OBSTACLE NOTES:

RWY 8 LOW, CLOSE-IN OBSTACLES: TREES, VEHICLES, AND POLES BEGINNING 500 FT FROM DER EXTENDING TO 1/2 NM, LEFT, CROSSING AND RIGHT OF CENTERLINE, UP TO 1546 MSL, 114 FT ABOVE DER. CROSSING DER 54 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

RWY 8 TAKEOFF MINIMUMS OBSTACLES: TREES AND TOWER BEGINNING 3/4 NM FROM DER EXTENDING TO 1 1/2 NM, RIGHT OF CENTERLINE, UP TO 2456 MSL, 265 FT ABOVE DER. CROSSING DER 42 FT ABOVE DER ELEV CLEARS TAKEOFF MINIMUMS OBSTACLES.

Example 4: FAA Form 8260-15B (SID), Obstacle penetration(s) inside/outside ICA (both low, close-in and takeoff obstacles).

DP ROUTE DESCRIPTION:

TAKEOFF RWY 18: CLIMB ON HEADING 185.22 TO 7700, THEN CLIMBING LEFT TURN DIRECT MKM VOR/DME, THEN ON MKM R-028 TO LARST, THENCE...

TAKEOFF RWY 36: CLIMB ON HEADING 005.22 TO 7100, THEN CLIMBING RIGHT TURN ON MKM R-028 TO LARST, THENCE...

TAKEOFF MINIMUMS:

RWY 18: 400-2 1/4 WITH MINIMUM CLIMB OF 259 FT/NM TO 1600, OR STANDARD WITH MINIMUM CLIMB OF 266 FT/NM TO 1500, OR STANDARD AND CROSSING DER 93 FT ABOVE DER ELEV CLEARS TAKEOFF MINIMUMS OBSTACLES WITH MINIMUM CLIMB OF 259 FT/NM TO 1600.

RWY 36: 300-2 WITH MINIMUM CLIMB OF 210 FT/NM TO 1200, OR STANDARD WITH MINIMUM CLIMB OF 245 FT/NM TO 1200, OR STANDARD AND CROSSING DER 63 FT ABOVE DER ELEV CLEARS TAKEOFF MINIMUMS OBSTACLES WITH MINIMUM CLIMB OF 210 FT/NM TO 1200.

TAKEOFF OBSTACLE NOTES:

See FAA Form 8260-15A, Takeoff Minimums and Obstacle Departure Procedures (ODP).

g. When multiple runway entries are needed apply the following for takeoff obstacle notes:

(1) Both low, close-in and takeoff minimums obstacle(s) must be documented for each runway as applicable. All entries will be listed in numerical runway order from low to high and from left to right when the numerical runway designations match.

(2) Combine runways when the low, close-in and takeoff minimums obstacle notes are the exact same and when one or the other is not required. Do this in order from low to high and

left to right in a single line when the numerical runway designator and the obstacle descriptions are the same.

Example: When both obstacle notes are available for all runways.

TAKEOFF OBSTACLE NOTES:

RWY 12L LOW, CLOSE-IN OBSTACLES: TREES BEGINNING 600 FT FROM DER, EXTENDING TO 1/2 NM, CROSSING CENTERLINE, UP TO 144 FT MSL, 89 FT ABOVE DER, CROSSING DER 49 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

RWY 12L TAKEOFF MINIMUMS OBSTACLES: BUILDINGS AND TOWER BEGINNING 1 1/2 NM FROM DER, EXTENDING TO 1 3/4 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 297 FT ABOVE DER, CROSSING DER 66 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

RWY 12R LOW, CLOSE-IN OBSTACLES: OBSTACLES 35 FT AND BELOW. CROSSING DER 15 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

RWY 12R TAKEOFF MINIMUMS OBSTACLES: BUILDINGS, CRANE, AND TOWER BEGINNING 1 1/2 NM FROM DER, EXTENDING TO 2 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 245 FT ABOVE DER, CROSSING DER 55 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

RWY 30L LOW, CLOSE-IN OBSTACLES: OBSTACLES 35 FT AND BELOW. CROSSING DER 15 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

RWY 30L TAKEOFF MINIMUMS OBSTACLES: BUILDINGS, CRANE, AND TOWER BEGINNING 1 1/4 NM FROM DER, EXTENDING TO 1 1/2 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 297 FT ABOVE DER, CROSSING DER 65 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

RWY 30R LOW CLOSE-IN OBSTACLES: OBSTACLES 35 FT AND BELOW. CROSSING DER 15 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

RWY 30R TAKEOFF MINIMUMS OBSTACLES: BUILDINGS, CRANE, AND TOWER BEGINNING 1 1/2 NM FROM DER, EXTENDING TO 1 3/4 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 297 FT ABOVE DER, CROSSING DER 65 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

Example: When both obstacle notes are not available for all runways: no low, close-in for one or more runways.

TAKEOFF OBSTACLE NOTES:

RWY 12L LOW, CLOSE-IN OBSTACLES: TREES BEGINNING 600 FT FROM DER, EXTENDING TO 1/2 NM, CROSSING CENTERLINE, UP TO 144 FT MSL, 89 FT ABOVE DER, CROSSING DER 49 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

RWY 12L TAKEOFF MINIMUMS OBSTACLES: BUILDINGS AND TOWER BEGINNING 1 1/4 NM FROM DER, EXTENDING TO 1 1/2 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 297 FT ABOVE DER, CROSSING DER 66 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

RWY 12R LOW CLOSE-IN OBSTACLES: OBSTACLES 35 FT AND BELOW. CROSSING DER 15 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

RWY 12R TAKEOFF MINIMUMS OBSTACLES: BUILDINGS, CRANE, AND TOWER BEGINNING 1 1/2 NM FROM DER, EXTENDING TO 2 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 245 FT ABOVE DER, CROSSING DER 55 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

RWY 30L TAKEOFF MINIMUMS OBSTACLES: BUILDINGS, CRANE, AND TOWER BEGINNING 1 1/4 NM FROM DER, EXTENDING TO 1 1/2 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 297 FT ABOVE DER, CROSSING DER 65 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

RWY 30R TAKEOFF MINIMUMS OBSTACLES: BUILDINGS, CRANE, AND TOWER BEGINNING 1 1/2 NM FROM DER, EXTENDING TO 1 3/4 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 297 FT ABOVE DER, CROSSING DER 65 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

Example: When both obstacle notes are not available for all runways: no takeoff min obstacles for one or more runways.

TAKEOFF OBSTACLE NOTES:

RWY 12L LOW, CLOSE-IN OBSTACLES: TREES BEGINNING 600 FT FROM DER, EXTENDING TO 1/2 NM, CROSSING CENTERLINE, UP TO 144 FT MSL, 89 FT ABOVE DER, CROSSING DER 49 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

RWY 12L TAKEOFF MINIMUMS OBSTACLES: BUILDINGS AND TOWER BEGINNING 1 1/4 NM FROM DER, EXTENDING TO 1 1/2 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 297 FT ABOVE DER, CROSSING DER 66 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

RWY 12R, 30L/R LOW, CLOSE-IN OBSTACLES: OBSTACLES 35 FT AND BELOW. CROSSING DER 15 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

Example: Both obstacle notes are not available for all runways: no takeoff min obstacles for some runways and no low, close-in for all runways.

TAKEOFF OBSTACLE NOTES:

RWY 30L TAKEOFF MINIMUMS OBSTACLES: BUILDINGS, CRANE, AND TOWER BEGINNING 1 1/4 NM FROM DER, EXTENDING TO 1 1/2 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 297 FT ABOVE DER, CROSSING DER 65 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

RWY 30R TAKEOFF MINIMUMS OBSTACLES: BUILDINGS, CRANE, AND TOWER BEGINNING 1 1/2 NM FROM DER, EXTENDING TO 1 3/4 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 297 FT ABOVE DER, CROSSING DER 65 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

Example: Combined notes. Only when the note is the exact same (Distances, heights/elevations, and positions)

TAKEOFF OBSTACLE NOTES:

RWY 12L/R LOW, CLOSE-IN OBSTACLES: OBSTACLES 35 FT AND BELOW. CROSSING DER 15 FT ABOVE DER ELEV CLEARS LOW, CLOSE-IN OBSTACLES.

RWY 30L/R TAKEOFF MINIMUMS OBSTACLES: BUILDINGS, CRANE, AND TOWER BEGINNING 1 1/2 NM FROM DER, EXTENDING TO 1 3/4 NM, LEFT, RIGHT, AND CROSSING CENTERLINE, UP TO 358 FT MSL, 297 FT ABOVE DER, CROSSING DER 65 FT ABOVE DER ELEV CLEARS TAKE-OFF MINIMUMS OBSTACLES.

Various Routed DP scenarios based on Order 8260.3.

Examples:

1. Straight DP Segments:

DR, No Turn (see Order 8260.3 figure below):

Figure 13-3-2

(ODP) RWY 09: CLIMB ON HEADING 090.00 TO 2000 BEFORE PROCEEDING ON COURSE.

(SID) RWY 09: CLIMB ON HEADING 090.00 FOR VECTORS TO ASSIGNED ROUTE.

Intercept PCG, Turn 15 Degrees or Less (see Order 8260.3 figures below):

Figure 13-3-3

(ODP) RWY 09: CLIMB ON I-ABC EAST COURSE TO 3000 BEFORE PROCEEDING ON COURSE.

(SID) RWY 09: CLIMB ON I-ABC EAST COURSE TO 3000 FOR VECTORS TO ASSIGNED ROUTE.

Figure 13-3-4, 13-3-5

(ODP)/(SID) RWY 36: CLIMB ON ABC VOR R-010...

Figure 13-3-6

(ODP) RWY 36: CLIMB ON ABC R-190 TO ABC VOR BEFORE PROCEEDING ON COURSE.

(SID) RWY 36: CLIMB ON ABC R-190 TO CROSS ABC VOR AT 5000.

2. **Turning DP Segments:**

DR to Intercept PCG Radial or Bearing, Turn Greater Than 15 Degrees (see Order 8260.3 figures below):

Figure 13-3-7

(ODP)/(SID) RWY 36: CLIMBING LEFT TURN HEADING 330.00 AND ABC VOR R-180...

Figure 13-3-8

(ODP)/(SID) RWY 36: CLIMBING RIGHT TURN HEADING 040.00 AND ABC VOR R-010...

Figure 13-3-9

(ODP)/(SID) RWY 36: CLIMB ON ABC VOR R-030 TO...

Figure 13-3-10

(ODP)/(SID) RWY 36: CLIMB ON ABC VOR R-220 TO ABC VOR ...

Figure 13-3-11

(ODP)/(SID) RWY 36: CLIMB ON HEADING 360.00 TO CROSS ABC VOR R-220, THEN RIGHT TURN HEADING 070.00 AND ABC VOR R-220...

Direct to Facility, Turn 15 Degrees but Less Than or Equal to 90 Degrees and Direct to Facility, Turn 15 Degrees but Less Than or Equal to 180 Degrees (see Order 8260.3 figures below):

Figures 13-3-12 and 13-3-13

(ODP)/(SID) RWY 36: CLIMBING RIGHT TURN DIRECT ABC VOR...

3. **Multiple PCG Turn Segments:**

See Order 8260.3 figures below:

Figure 13-3-17

(ODP)/(SID) RWY 36: CLIMB ON ABC VOR R-195 TO ABC VOR, THEN RIGHT TURN ON XYZ VOR R-255 TO XYZ VOR...

Figure 13-3-18

(ODP)/(SID) RWY 36: CLIMB ON ABC VOR R-010 TO ALPHA, THEN RIGHT TURN ON XYZ VOR R-240 TO XYZ VOR...

Figure 13-3-19

(ODP)/(SID) RWY 36: CLIMB ON ABC VOR R-195 TO XYZ VOR, THEN RIGHT TURN ON XYZ VOR R-075 TO BRAVO...

2-1-4. Standard Instrument Departures. Design SIDs to assist in meeting environmental, capacity, and ATC requirements. SIDs may be requested by specific ATC facilities, the military services, or other proponents to enhance operations. A SID also provides protection from obstacles and is depicted graphically; however, it will not contain the “(OBSTACLE)” designation following the procedure title on the chart and may not be flown unless the SID is part of an IFR, ATC clearance. The following rules apply to SIDs:

a. Design SIDs to terminate at a fix/NAVAID depicted on an IFR en route chart, at an altitude that will allow random IFR flight, or at a position and altitude where ATC radar service is provided.

b. When a SID is designed to incorporate radar vectors or a course to be flown at the termination point, provide a heading/course for charting and incorporation into the avionics database in the event ATC instructions are not received prior to or at the termination fix.

2-1-5. Design Constraints. The following design constraints apply to all ODPs and SIDs:

a. DPs must not require a turn prior to reaching 400 feet above the DER elevation. See Order 8260.3 and Order 8260.58 when a turn is required within 2 NM of DER.

b. The FPAG (or appropriate military authority) must approve DPs and DVAs requiring a CG in excess of 500 ft/NM (600 ft/NM for helicopters). See paragraph 2-1-5.h.(3) for additional information regarding establishing/publishing greater than standard CGs.

Note: Base consideration for approval on, but not limited to, potential users/aircraft capability of meeting such a CG, and location of the obstruction along the projected flight track that is causing the CG.

(1) Requests for approval of CGs in excess of 500 ft/NM (600 ft/NM for helicopters) must include documentation showing the calculations used to derive the CG values.

(2) When the FPAG will not approve a CG in excess of 500 ft/NM (600 ft/NM for helicopters) and all of the obstacles forcing such a CG are located inside the ICA (extended) 3 SM or less from DER, a ceiling and visibility may be applied to see and avoid the obstruction(s) as the only option available.

(3) When the FPAG will not approve a CG in excess of 500 ft/NM (600 ft/NM for helicopters) and any of the obstacles forcing such a CG are located outside the ICA (extended) greater than 3 SM from DER; a stand-alone VCOA procedure may be used as the only option available for obstacle avoidance.

c. Specify speed restrictions only when necessary to ensure obstacle clearance, airspace efficiency during turns, or when necessary to achieve an operational advantage. Refer to applicable DP criteria directives.

(1) Speed restrictions to support ATC requirements are only allowed in SID design and must not be included in ODPs.

(2) Limit speed restrictions to one restriction per fix/waypoint. In this instance, an altitude that meets TERPS criteria (or if applicable, a higher altitude for ATC operational requirements) must also be charted at the fix/waypoint.

(3) Speed restrictions may apply to the entire procedure or to a specific point-in-space. Use standard notes, where possible, so that the intent can be clearly understood by the pilot; e.g., “DO NOT EXCEED XXX KIAS UNTIL PASSING (FIX NAME);” “DO NOT EXCEED XXX KIAS UNTIL LEAVING (ALTITUDE);” “INCREASE SPEED TO XXX KIAS, IF UNABLE, ADVISE ATC.”

(4) For the portion of a DP that underlies Class B airspace, do not chart minimum or mandatory speed restrictions in excess of 200 KIAS. Do not establish speed restrictions that require an aircraft to exceed the restrictions in 14 CFR part 91.117 (a) and (c).

(5) Do not chart minimum or mandatory speed restrictions in excess of 250 KIAS below 10,000 feet MSL.

d. Do not use fan markers as a fix to designate a turning point on a SID or ODP.

e. Do not establish VCOA procedures in conjunction with a SID.

f. Except for departures that use Radar vectors to join RNAV routes, RNAV DPs must only serve one airport.

g. Do not establish DPs containing more than one departure route from the end of a runway to the end of the DP to support different types of aircraft (jet, turboprop, etc.) or different equipment requirements (distance measuring equipment (DME), non-DME). When this is necessary, design separate procedures.

h. Charting constraints. The following charting constraints apply:

(1) Communications. Charting of the Departure Control frequency will occur automatically (without coordination). Other communication types will be depicted only when specifically requested. For additional frequencies requested by the Instrument Flight Procedure Validation Team or specified on the worksheet, specify CHART ATIS, CHART CLNC DEL, etc.

(2) Charting altitudes. Document altitudes for charting as follows:

(a) Graphic DPs may require depiction of a minimum altitude at a fix established along the departure route. SIDs may require altitudes to support ATC requirements; however, do not depict ATC-required altitudes on ODPs.

(b) When ATC requests a minimum “at or above” altitude restriction at a fix in an initial SID routing (prior to reaching the SID termination fix) that is higher than the required procedure design minimum altitude at the same fix, the higher requested ATC altitude then becomes the minimum altitude at that fix. This altitude must support all procedure design and criteria requirements [i.e., obstacle clearance/procedure design constraints/navigation solution and the ATC requirement(s)].

1. When establishing crossing altitudes for other than meeting obstacle clearance and/or to support a shortened ICA to ensure LNAV engagement can occur before turning, stakeholders should give consideration to aircraft performance limitations based on the type of aircraft expected to be using the SID and whether those aircraft will be capable of meeting these altitude restrictions. This may require consultation with industry partners and local operators that could be impacted.

2. Calculate (but do not publish) the CG necessary to meet each minimum altitude restriction. FPAG’s approval is required if the calculated CG exceeds 500 ft/NM (600 ft/NM for helicopters).

(c) When an ATC facility has requested an “at or below” altitude restriction at a fix, ensure that the requested altitude meets all required obstacle clearance (ROC) requirements specified in Order 8260.3, chapter 13, as well as other criteria design standards. ATC may also have a need to establish an “at or above” altitude in conjunction with the “at or below” altitude at the same fix making this either a “mandatory” or “block” fix crossing altitude [see paragraph 2-1-5.h.(2)(b)].

(d) Enter altitudes to be charted on the appropriate FAA Form 8260-15 series (see appendix D or appendix E). Government and civil charting organizations will chart/depict these altitudes according to their individual specifications.

(e) For SIDs, top altitudes must be documented on FAA Form 8260-15B, Graphic Departure Procedure.

1. Top Altitudes will be provided by the applicable controlling ATC Facility or the Service Area Flight Procedures Team (FPT) using the Graphic DP Requirements Worksheet per appendix B.

2. Even though a SID may serve more than one airport, a maximum of only two numerical values and one “ASSIGNED BY ATC” per SID are authorized (do not exceed three per procedure).

3. A top altitude may be specified in various combinations (the variations permitted are specified in appendix D, section 2, and appendix E, section 1).

a A specific altitude or flight level

b ATC may elect to not publish a specific numerical top altitude, preferring to issue the top altitude as part of the ATC clearance (to assist ATC when flexibility is needed for the efficient flow of traffic). When this occurs, ATC will request the top altitude information be stated as “ASSIGNED BY ATC,” and state “MAINTAIN ATC ASSIGNED ALTITUDE” as part of Departure Route Description (DRD). When ATC requests a top altitude of “AS ASSIGNED BY ATC” the lowest numerical maintain altitude that ATC would assign must be provided on the Graphic DP Requirements Worksheet. This altitude will be used for evaluation purposes.

c Various top altitude combinations must not be combined using “OR” because ATC always has the authority to change an altitude assignment (i.e., “CHART TOP ALTITUDE: 7000 OR AS ASSIGNED BY ATC” or “CHART TOP ALTITUDE: 7000 OR PROPS 5000”).

d It may be in the form of two different altitudes used to support different aircraft types (jet or propeller driven aircraft).

4. Top altitudes 18,000 feet MSL and above must be specified as a Flight Level.

5. The Top altitude provided must be at or above all fix crossing altitude restrictions specified along the departure route and transitions and must not be lower than the highest climb gradient termination altitude listed in the takeoff requirements of the procedure. For example, if the takeoff minimums state a 360 ft/NM CG until reaching 6000, the ATC assigned top altitude will be no lower than 6000.

(3) Charting a minimum CG. See applicable 8260-series orders for the appropriate criteria to use when establishing a minimum CG. Enter minimum CG and associated termination altitude for charting on the appropriate FAA Form 8260-15 series (see appendix D, appendix E, appendix F, or appendix G).

(a) Establish a single minimum CG exceeding 200 ft/NM (400 ft/NM for helicopters beginning at the IDF) whenever required for obstruction clearance and include the altitude to which the gradient is required in the Takeoff Minimums note; e.g., “(TAKEOFF MINIMUMS) WITH MINIMUM CLIMB OF 300 FT/NM TO 4300.”

(b) When a CG is necessary to support a shortened ICA to ensure LNAV engagement occurs before turning (e.g., 500 ft/NM to 1300), a reduced, second CG may be established in this situation only (i.e., a maximum of two CGs).

(c) Do not establish a greater than standard CG solely to reach an altitude sooner for LNAV engagement purposes when an early turn is not necessary [see Order 8260.58, paragraph 5-1-1.c.(2)].

(d) Do not chart CGs that may be needed to support airspace, navigation solution, environmental, or ATC operational limitations.

Note 1: Pilots are expected to determine if minimum crossing altitudes can be met, based on the performance capability of the aircraft they are operating. However, CGs must be evaluated between fixes where minimum crossing altitudes have been established to determine if the CG is excessive/unrealistic for the anticipated types of aircraft that will use the SID. These CGs will not be charted. See paragraph 2-1-5.h.(2)(b) for action that may be necessary.

Note 2: Helicopter point-in-space IFR departures depart VFR (or may depart visually for approved Special) from a heliport/departure surface, to the IDF. The departure is considered as beginning at the IDF for departures that do not contain a “visual” segment (see appendix F, paragraph 2). The CG for helicopter departures is normally much greater to the IDF after which the CG is reduced to (typically) the standard CG of 400 ft/NM in the 20:1 area.

(4) Charting speed restrictions. Identify required speed restrictions per Interagency Air Committee (IAC) specifications. Also, see paragraph 2-1-5.c. for design constraints.

(a) Speed restrictions for textual ODPs will follow the departure instructions; e.g., “...CLIMBING RIGHT TURN DIRECT XXX VOR. DO NOT EXCEED 200 KIAS UNTIL XXX VOR.”

(b) Annotate speed restrictions for graphic ODPs and SIDs on the chart at the restriction point; in the Additional Flight Data block of FAA Form 8260-15B, document the speed restriction as follows: CHART: SPEED ICON (MAXIMUM/MINIMUM/MANDATORY) SPEED (value) KIAS AT (Fix Name). State speed restrictions not associated with a fix in the form of a chart note; e.g., “CHART: NOTE: DO NOT EXCEED 210 KIAS UNTIL ESTABLISHED DIRECT ABC VOR.”

(5) ODPs depicted graphically must have the term “(OBSTACLE)” printed on the graphic (see appendix D or appendix E). Indicate the word “OBSTACLE” adjacent to the “TYPE” line on FAA Form 8260-15B. U.S. Government charts will include this immediately following the procedure title; e.g., TETON ONE DEPARTURE (OBSTACLE).

(6) ODPs designed for RNAV use must have the terms (OBSTACLE) and (RNAV) printed on the graphic. Indicated by the words “OBSTACLE” and “RNAV” adjacent to the “TYPE” line on FAA Form 8260-15B. U.S. Government charts will include this immediately following the procedure title; e.g., LASCH ONE DEPARTURE (OBSTACLE) (RNAV).

(7) All Graphic DPs must include applicable takeoff minimums and CGs on the graphic chart. Obstacle DPs must also include obstacle note data, as applicable (see paragraph 2-1-3) on the graphic chart.

(8) ATC radar vectoring may be used as part of an RNAV SID and published on the same chart with an RNAV route departure from a different runway; however, both must contain the same common segment prior to reaching the end of the departure (see appendix E, section 2 for unique database coding requirements).

(9) When ATC has determined that they do not want pilots to “Flight Plan” or file a particular SID (i.e., use will be determined by ATC), ATC will request that a chart note be placed on the SID. In the “Procedural Data Notes” section of FAA Form 8260-15B, use: “CHART: NOTE: DO NOT FILE – TO BE ASSIGNED BY ATC.”

i. PBN chart annotation. A navigation specification (NavSpec) contains the performance-based accuracy integrity, and continuity requirements of PBN navigation for a given airspace construction. Apply the RNAV 1 NavSpec for PBN SIDs under most circumstances. Alternative use of RNP 1, A-RNP, RNP AR DP, and RNP 0.3. NavSpecs is detailed in Order 8260.58. SID transitions are an en route flight phase, refer to Order 8260.58 Table 1-2-1, En Route Domestic.

(1) Provide a PBN Requirements Box when there is a PBN segment in the procedure.

(2) Separate the PBN Requirements Box from other procedural and non-procedural notes and information on the chart.

(3) Specify PBN requirements notes on FAA Form 8260-15B in the following format: “NAVSPEC – SENSOR, FUNCTION. REMARKS.” When the note does not contain Function and Remark, the “period” is placed after the Sensor (e.g., “RNP 1 - GPS.”). When the note does contain a Remark, the “period,” in the Remark, is placed after the NavSpec or Sensor or Function and Remark (e.g., “RNAV 1 – GPS. FROM YABUT: RNP 1.” or “RNP 1 - GPS. FROM YABUT: A-RNP, MIN RNP 0.30. AP/FD.”).

(a) NavSpec: Identify the NavSpec as appropriate. RNAV 1, RNP 1, A-RNP, RNP AR DP, RNP 0.3. RNP AR DP (without additional NavSpecs) can only be used when publishing a stand-alone graphic DP. When a NavSpec is only applicable to a specific runway transition(s) or leg(s) of a DP, identify this is a “REMARK” by stating the waypoint where the NavSpec begins followed by NavSpec - Sensor, Function. Remark (e.g., “RNAV 1 – DME/DME/IRU or GPS. FROM YABUT: RNP 1 - GPS, RF.”).

(b) Sensor: The required sensor is applicable to the NavSpec.

1. RNAV 1: Aircraft equipped with GPS and/or DME/DME/IRU sensors may support RNAV 1 DPs. If the RNAV DP intends to support aircraft without GPS, then the

DP requires a DME availability or screening assessment to ensure adequate DME facility coverage exists along the DP's path. If the DME assessment is satisfactory and radar monitoring is also available, then the PBN Requirements Box may identify both GPS and DME/DME/IRU as supporting sensors. If the DME assessment fails or radar monitoring is not available, then the RNAV 1 DP must identify GPS as the only available sensor.

2. RNP 1, A-RNP, RNP AR DP, and RNP 0.3: The only authorized sensor for any RNP NavSpec is GPS. No ATC monitoring is required when GPS is the only sensor option (do not annotate "RADAR REQUIRED").

(c) Function: Common functions are RF turns and MIN RNP values. These functions can only be used with RNP NavSpecs. They can be applicable to the entire DP or only to a specific runway transition(s) or leg(s).

1. RF turns applicable to all runway transition(s) or leg(s) of the DP: Identify this as the function (e.g., "RNP 1 – GPS, RF.").

2. RF turn applicable only to a specific runway transition(s) or leg(s) of a DP: Identify this as a "Remark" by stating the waypoint where the RF turn begins followed by NavSpec - Sensor, Function. Remark (e.g., "RNAV 1 – DME/DME/IRU or GPS. FROM YABUT: A-RNP - GPS, MIN RNP 0.30. AP/FD.").

3. Lateral Accuracy Function: A-RNP has lateral accuracy values of 1.00 or 0.30. RNP AR DP has lateral accuracy values from 1.00 to 0.30. Document only A-RNP or RNP AR DP NavSpecs when the lateral accuracy value is < 1.00 (e.g., "A-RNP - GPS, MIN RNP 0.30, AP/FD" or "RNP AR DP – GPS, MIN RNP 0.70, AUTHORIZATION REQUIRED").

(d) Remark: Common remarks are Autopilot/Flight Director (AP/FD) and Authorization Required. Additionally, when a NavSpec, Sensor or Function is only applicable to a specific runway transition(s) or leg(s) document this as a remark.

1. A-RNP require AP/FD; document "AP/FD" as a remark.

2. RNP 0.3 require AP; document "AP" as a remark.

3. RNP AR DP require authorization; document "AUTHORIZATION REQUIRED" as a remark.

4. When the NavSpec does not change but a Function (RF/Lateral Accuracy value <1.00) is only applicable to a specific runway transition(s) or leg(s) then do not repeat the NavSpec (e.g., "RNP 1 – GPS. FROM YABUT: RF" or "A-RNP – GPS. AP/FD. FROM HEERE: RF, MIN RNP 0.30.").

5. When the Sensor does not change but a NavSpec, Function, or Remark is only applicable to a specific runway transition(s) or leg(s) then do not repeat the Sensor (e.g., "RNP 1 – GPS. FROM YABUT: A-RNP, RF").

6. When more than two waypoints are listed use a comma between waypoints and “OR” prior to the last waypoint (e.g., “FROM YABUT, HEERE OR THERE: RF”).

(e) Common PBN requirements notes(s) as applicable:

1. RNAV 1 [no RF turns or NavSpec for a specific runway transition(s)/leg(s)]: “RNAV 1 – GPS.” or “RNAV 1 – DME/DME/IRU OR GPS.”

2. RNAV 1 (with specific RF turns): “RNAV 1 – DME/DME/IRU OR GPS. FROM HEERE OR THERE: RNP 1 – GPS, RF.”

3. RNP 1 no RF turns: “RNP 1 – GPS.”

4. RNP 1 (with RF turns or specific RF turns): “RNP 1 – GPS, RF.” or “RNP 1 – GPS. FROM HEERE OR THERE: RF.”

5. A-RNP (lateral accuracy of 1.00 and no RF turns): “A-RNP – GPS, AP/FD.”

6. A-RNP (lateral accuracy of 0.30 and no RF turns): “A-RNP – GPS, MIN RNP 0.30, AP/FD.”

7. A-RNP (lateral accuracy of 0.30 and specific RF turns): “A-RNP – GPS, RF MIN RNP 0.30, AP/FD” or “A-RNP – GPS. AP/FD. FROM HEERE OR THERE: RF, MIN RNP 0.30.”

8. RNP AR DP (lateral accuracy of 1.00 and no RF turns): “RNP AR DP – GPS, AUTHORIZATION REQUIRED.”

9. RNP AR DP (lateral accuracy < 1.00 and no RF turns): “RNP AR DP – GPS, MIN RNP 0.70. AUTHORIZATION REQUIRED.”

10. RNP AR DP (lateral accuracy < 1.00 and specific RF turns): “RNP AR DP – GPS, RF, MIN RNP 0.50. AUTHORIZATION REQUIRED.” or “RNP AR DP – GPS. AUTHORIZATION REQUIRED. FROM HEERE OR THERE: RF, MIN RNP 0.70.”

11. Helicopter RNP 0.3: “RNP 0.3 – GPS. AP.” or “RNP 0.3 – GPS, RF. AP.”

j. Equipment requirements. DPs are also categorized by equipment requirements as follows:

(1) Non-RNAV DP. A DP established for aircraft equipped with conventional avionics using ground-based NAVAIDS; e.g., non-directional beacon (NDB), very high frequency omni-directional range (VOR), very high frequency omni-directional range/tactical air navigation (VORTAC), localizer (LOC), etc. These DPs may also be designed using DR navigation.

(2) RNAV DP. A DP established for aircraft equipped with RNAV avionics; e.g., Global Positioning System (GPS), flight management system (FMS), etc. Do not require automated vertical navigation.

(a) A note may be required to address the need for specific distance measuring equipment (DME) facilities to be operational. These are referred to as critical DME facilities.

Example:

“NOTE: FOR NON-GPS EQUIPPED AIRCRAFT, ABC, JKL, AND XYZ DMES MUST BE OPERATIONAL.”

(b) Except as required by paragraph 2-1-5.i.(3), all “RNAV 1” DPs that are annotated “DME/DME/IRU OR GPS REQUIRED” must be annotated with the note: “RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT.”

Note: Do not combine non-RNAV and RNAV SIDs on the same chart. However, RNAV waypoints may be depicted on conventional Radar SID charts to support ATC operational requirements.

(3) Radar SID. A SID established when ATC has a need to vector aircraft on departure to a particular ATS Route, NAVAID, or fix. Radar vectors may also be used to join conventional or RNAV navigation SIDs. Annotate SIDs requiring radar vectors with RADAR REQUIRED.

k. Terminology. The following terminology applies for the initial climb instructions:

(1) When required, departure instructions must specify the actual heading to be flown after takeoff. **Example:** “CLIMB ON HEADING 350.10...” Some existing procedures specify, “Climb runway heading.” Procedure designers will update these procedures during the periodic review process, changing the terminology to specify the actual heading to be flown.

Note: For database coding, heading/track/course values must be in hundredths of a degree. For charting purposes, these heading/track/course values will be rounded to the nearest whole degree (hundredths of a degree are not used in ATC communications).

(2) If departure instructions require ATC to assign a heading or heading and altitude, use “Climb on assigned heading for radar vectors to (name of fix/airway, etc.),” or “CLIMB ON ASSIGNED HEADING TO (altitude) FOR RADAR VECTORS TO (name of fix/airway, etc.).”

(3) If departure instructions require a specific altitude to climb to after takeoff, do not use the terminology “Climb to (altitude) ...” without including a heading to fly. **Example:** “CLIMB ON HEADING 310.25 TO 1500...”

(4) Do not use the terminology “Climb straight ahead...” or “Maintain runway track...,” as there is no guidance or reference definition of this phraseology for the pilot to apply.

(5) For a graphic DP ensure initial departure instructions that require altitude restrictions are written clearly and in order to be flown to lessen the possibility of pilot

deviations. For example, “CLIMB ON HEADING 240.15 MAINTAIN 1500, THEN TURN RIGHT HEADING 280 AND CROSS TEB 4.5 DME AT 1500, THEN MAINTAIN 2000, THENCE...” or “CLIMB ON HEADING 195.47 TO 1500, THEN CLIMBING RIGHT TURN HEADING 280, MAINTAIN 4000, THENCE...” or “CLIMB ON HEADING 123.31 TO 3000, THEN CLIMBING LEFT TURN TO ASSIGNED HEADING FOR RADAR VECTORS TO HAIKU, MAINTAIN 14,000, THENCE...”

(6) A DP requiring a turn does not require an initial climb heading to be specified if less than 15 degrees for example, “CLIMB DIRECT XYZ VOR... or CLIMB ON XYZ VOR R-226...”

(7) Direction of turn must be specified when the turn exceeds 15 degrees for example, “CLIMBING RIGHT TURN DIRECT XYZ VOR... or CLIMBING RIGHT TURN ON XYZ VOR R-226...”

(8) Do not use the word immediate/immediately in any type of departure instructions; e.g., turning instruction or speed restrictions. Old early turn DPs may contain instructions to “Turn left (right) as soon as practicable.” This terminology is used on non-standard DPs approved by the Flight Standards or the appropriate military authority. When an intercept heading is defined (see Order 8260.3, paragraph 13-3-3) it must be charted.

l. Diverse vector area (DVA). An ATC facility may request a DVA to permit vectoring of aircraft on departure, below the minimum vectoring altitude (MVA) or minimum IFR altitude (MIA) under the provisions in Order JO 7210.3, paragraph 3-8-5, Establishing Diverse Vector Areas. Order 8260.3 contains the criteria used for design. See appendix G of this order for documenting the design of a DVA.

m. Attention All Users Page (AAUP). For simultaneous RNAV departures, an AAUP must be published. The AAUP provides the flight crew with procedures that must be used when conducting these operations, in a form that may be reviewed prior to conducting the procedure.

Note: The flight crew will be notified when an AAUP is published. The note will appear on the narrative page immediately beneath the departure route description title. See appendix E, section 1, paragraph 2.q.(3).

(1) **Site Implementation Team (SIT).** A SIT is normally established to address issues related to establishing the procedures. If no team is established, the FAA facility that provides ATC services to the airport, at which the operations are to be conducted, is responsible for the AAUP. The SIT is:

(a) Comprised of FAA and industry members with the team leadership designated by Air Traffic.

(b) Responsible for the design, among other things, of an AAUP.

(2) **AAUP preparation.** The AAUP must present the step-by-step procedures used to conduct the procedure. Document the AAUP using FAA Form 8260-15E, Attention All Users Page, and the guidance provided in appendix E, section 3.

Note: An AAUP example is provided in appendix E and may not be the most current or not necessarily applicable to other locations. This example should be used as a documentation guideline. AAUPs must reflect the requirements of the specific procedure and airport for which they are designed.

(3) AAUP processing. The SIT (or applicable ATC facility) must submit the draft AAUP to 9-AWA-AFS400-COORD@faa.gov. For departure AAUPs, include documentation of coordination with Air Traffic Mission Support Services, Mission Support Policy Directorate. Use the subject line “Approval Request: AAUP Simultaneous Arrival” or “Approval Request: AAUP Simultaneous RNAV DP” as appropriate. Flight Operations Group will submit the approved AAUP and requested effective date to Aeronautical Information Services.

EXCEPTION: In the case of a Special Procedure requiring an AAUP, FPAG will coordinate the effective date with the appropriate parties.

(4) AAUP publication. The originating organization will determine the required publication date; coordinate with Aeronautical Information Services as necessary. After receiving the AAUP from the Flight Operations Group, the Aeronautical Data Group will:

(a) Verify the applicability of the publication date and assign that date for publication.

(b) Coordinate with the Flight Operations Group who will, in turn, contact the originating organization and Aeronautical Information Services should a change in the previously agreed upon date be required.

(c) When publishing a new AAUP in conjunction with a new or revised procedure, it is important that the AAUP be coordinated jointly between the originating organization, Aeronautical Information Services Instrument Flight Procedures Group, Aeronautical Information Services, Aeronautical Data Group, and the Flight Operations Group to ensure its publication is concurrent with the procedure(s) for which the AAUP was required.

(d) Publish the AAUP in the National Flight Data Digest (NFDD).

(e) The NFDD is the source for AAUP information for publication by all chart producers.

2-1-6. Responsibilities.

a. General. The following guidance outlines procedures for DP requests, processing, and cancellation:

(1) Procedure requests. SIDs are normally requested by the ATC facility responsible for departure control at the airport where the procedure is proposed, or by another proponent through the Aeronautical Information Services “IFP Gateway.” Process all requests for new or amended SIDs through the Service Area Operations Support Group, Flight Procedures Team (OSG FPT) and the OSG FPT will forward to the appropriate IFP Validation Team in accordance with Order 8260.43, Flight Procedures Management Program.

(2) Requirements. ATC must provide the OSG FPT, detailed operational requirements and restrictions for inclusion in the SID design. Aeronautical Information Services must make every effort to meet ATC-identified operational requirements and constraints using current criteria and policy. When current criteria and policy will not support a design to meet ATC requirements, Aeronautical Information Services, FPAG, and other Air Traffic organizations/involved parties must work together to find an acceptable solution.

(3) Cancellation. The IFP Validation Team must approve all proposed SID cancellations. AJV-A has sole responsibility for canceling ODPs. AJV-A cancels a DVA by notifying the ATC Facility Manager and Support Specialist by phone/e-mail, followed by a memorandum to indicate the previously approved FAA Form 8260-15D, Diverse Vector Area, is no longer valid.

b. Proponent. A proponent's request to design or amend a DP must include the information in appendix B and appendix C. Complete and forward this information to the ATC facility providing departure control service to the airport for acceptance, prior to design. The DP request package must include the following:

(1) An outline of the type of procedure and expected benefits.

(2) A proposed ground track, including associated fixes and any proposed altitude or speed restrictions.

(3) A request (if required) for design assistance from the servicing ATC facility.

(4) Air Traffic is responsible for satisfying the Safety Risk Management requirements from Order 1100.161, Air Traffic Safety Oversight, for changes to the National Airspace System (NAS).

(5) New DP design or amendment requests must specify which ICA criteria and design guidance to use for DPs.

c. ATC. When assisting a proponent or requesting a SID, the ATC facility providing departure control service must:

(1) Evaluate the proponent's request to ascertain preliminary operational feasibility and to determine/verify that significant benefits (see appendix B) will be derived.

(2) Assist in designing the procedure by providing the proponent with information pertaining to traffic flow and operational constraints; e.g., routes, minimum IFR altitudes, facility/sector lateral and vertical airspace boundaries, special use airspace, miscellaneous activity areas, etc.

Note: When an ATC facility proposes SID design from an airport served primarily by air carriers, it may attempt to solicit the assistance of a "lead carrier" in the design and flyability of the proposed procedure.

(3) Coordinate with other ATC facilities affected by the procedure.

(4) Coordinate with the servicing Air Route Traffic Control Center (ARTCC) to obtain a five-letter pronounceable name for all fixes in the graphic DP. Complete FAA Form 8260-2, Radio Fix and Holding Data Record, for each fix being established, modified, or canceled (see appendix C). Include the worksheet(s) as part of the graphic DP request package. Existing fixes/NAVAIDs should be used where conveniently located.

(5) Coordinate with the servicing ARTCC to obtain a name and computer code for the SID as specified in chapter 3.

(6) Complete the DP requirements data worksheet (see appendix B), when applicable.

(7) Forward the requested package to the applicable Service Area OSG. The package must contain worksheets for all fixes, the DP requirements data worksheet, and a sketch of procedures requiring graphic publication (see appendix D or appendix E).

(8) Review SIDs at least biennially for continued need. Coordinate requested changes through the applicable Service Area OSG FPT.

(9) Collaborate with the Flight Operations Group when the development/amendment of an AAUP is necessary for RNAV DPs. See paragraph 2-1-5.m. for additional guidance.

d. Service Area Operations Support Group.

(1) Review the DP package for completeness.

(2) Review DPs for impact based on Facilities and Equipment changes, National Change Proposal, or other applicable projects.

Note: The point-of-contact (POC) and telephone number for the ATC facility is listed on the Graphic DP requirements worksheet. The FPT must contact the POC to resolve any problems in developing the requested procedure and provide appropriate alternatives. The POC must be responsible for additional coordination of changes required for development. The FPT should coordinate with the Flight Procedure and Airspace Group's designated representative for assistance where necessary.

(3) Act as the focal point for all ATC coordination and provide appropriate assistance in resolving any problems identified during the development process.

(4) Ensure that a DME/DME screening model has been run on RNAV SIDs to determine if the procedure is useable by suitably equipped aircraft, prior to submission.

Note: The DME/DME assessment process is contained in Order JO 7470.1, DME/DME Infrastructure Evaluation for Area Navigation (RNAV) Routes and Procedures.

(5) Facilitate discussion of the procedure at the IFP Validation Team.

(6) Forward the DP package to AJV-A.

(7) Provide one copy of each FAA Form 8260-2 and 8260-15 series FAA form(s) to all affected ATC facilities.

(8) The OSG FPT notifies the requesting ATC facility of the anticipated publication date and any delay in the publication and cause.

(9) The OSG FPT must ensure that changes to the NAS comply with Order 1100.161.

e. Aeronautical Information Services.

(1) Develop and process textual ODPs on FAA Form 8260-15A under applicable directives.

(2) Develop and process graphic ODPs and SIDs on FAA Form 8260-15B.

(3) Develop and process an FAA Form 8260-15C, Departure Data Record, for all RNAV DPs.

(4) Develop and process an FAA Form 8260-15D for all DVAs.

(5) Ensure that a DME/DME screening model has been run on graphic RNAV ODPs (the Service Area OSG is responsible for DME/DME screening of SIDs) to determine if the procedure is useable by suitably equipped aircraft, prior to submission for flight inspection.

Note: The DME/DME assessment process is contained in separate guidance.

(6) Submit DPs to Flight Program Operations, for necessary action.

(7) After satisfactory flight inspection, forward the original FAA Form 8260-2s and original 8260-15 series FAA Forms to Aeronautical Data Group. Ensure copies are available for distribution [see paragraph 2-1-6.d.(5) and 2-1-6.d.(7)].

(8) Develop, review, track, and cancel Notice to Air Missions (NOTAMs) relating to ODPs, SIDs, and DVAs.

(9) Assign an effective date for all ODPs, SIDs, and DVAs. Publish both textual and graphic ODPs in the Transmittal Letter (TL) authorizing charting agencies to publish the procedure(s). Submit SIDs and DVAs to the Aeronautical Data Group for incorporation into the NFDD.

(10) Monitor and track the status of concurrent instrument approach procedure (IAP) packages to ensure that the entire package is published with the same effective date.

(11) Ensure related controlled airspace actions as required by Order JO 7400.2, Procedures for Handling Airspace Matters, have been completed prior to assigning an effective date.

(12) Ensure routine procedures have been flight inspected prior to incorporation in the TL.

(13) Review DPs periodically for continued need, obstacle clearance, and compliance with current criteria and policy; and coordinate proposed changes with the appropriate ATC facility. When application of new criteria or a new obstacle affects an ODP, SID, or DVA that requires adjustment to an obstacle-driven CG, all DPs must be evaluated to determine if other CGs require adjustment. If CG adjustments are required, they must be updated simultaneously in the same charting cycle.

(14) When a location currently has standard takeoff minimums and circumstances now require non-standard takeoff minimums and/or an ODP development, amend the current FAA Form 8260-15A for the airport accordingly.

(15) When it is necessary to cancel a DP, process the appropriate FAA Form 8260-15 as directed in paragraph 2-1-9.c.

(16) Add the “T” symbol to the IAP and SID charts whenever FAA Form 8260-15A contains any data entries on the form other than the word “Standard.”

Note: The “T” symbol will not be placed on graphic ODPs.

(17) Delete the “T” symbol from the IAP and SID charts whenever FAA Form 8260-15A reflects no data entries on the form other than the word “Standard.” This symbol deletion applies when a Textual ODP is not published or when removal of textual ODP information is necessary based on a revised FAA Form 8260-15A.

Note: The basic rule is that if an ODP is published (Text or Graphic), the “T” symbol is required on all approach charts to that airport. If an ODP is not published, a “T” symbol will not appear on approach charts.

(18) Issue P-NOTAMs to correct U.S. Government charting discrepancies and compilation errors required (see Order 8260.19, Flight Procedures and Airspace).

f. Flight Program Operations.

(1) Coordinate and execute flight validation and flight inspection for FAA-developed procedures and under a reimbursable agreement with other IFP providers,

(2) Provide flight inspection results and archived reports upon request, and

(3) Verify DME/DME coverage when applicable.

g. Aeronautical Data Group.

(1) Conduct a review of submitted forms to ensure compatibility with the National Airspace System Resources (NASR), national database, and compliance with applicable directives relative to form entries.

(2) Publish SIDs, associated fixes, AAUPs, and DVAs in the daily NFDD authorizing charting agencies to publish these procedures. See paragraph 2-1-5.m.(4) for more specific AAUP responsibilities.

(3) Resolve data conflicts, form discrepancies, etc., with Aeronautical Information Services.

(4) File and maintain the original signed copy of the forms.

2-1-7. Accuracy Verification and Responsibilities. Any ATC facility, military service, proponent, charting agency, procedure user, concerned individual, organization, or office must:

a. Notify Aeronautical Information Services of published errors (including omissions) that affect safety of flight by the fastest means available. Aeronautical Information Services must take appropriate NOTAM action under Order 8260.19.

b. Notify Aeronautical Information Services whenever pre-publication errors are discovered in the TL. Aeronautical Information Services will coordinate necessary corrective actions and promulgate corrected data/forms.

c. Notify the Aeronautical Data Group whenever pre-publication errors are discovered in the NFDD. The Aeronautical Data Group will coordinate necessary corrective actions and promulgate corrected data/forms.

d. Notify Aeronautical Information Services whenever charting discrepancies/compilation errors are detected in U.S. Government published aeronautical products. Aeronautical Information Services will coordinate corrective actions.

2-1-8. Military DPs.

a. Name and number all military DPs in accordance with the criteria outlined in this order.

Note: Military DPs are not handled or published in the same manner as civil DPs. Approval authority for DPs at military airports rests with the military. The FAA develops U.S. Air Force DPs at domestic civil airports under Order 8260.32, United States Air Force Terminal Instrument Procedures Service. The National Geospatial-Intelligence Agency (NGA) publishes all military DPs.

b. The FAA requires that all military DPs be coordinated with FAA ATC facilities when such DPs affect the NAS. The Air Traffic facility providing the departure service must assist the military in coordinating the procedures and in obtaining computer codes to ensure that the procedures are properly interfaced with the NAS. U.S. Air Force and Navy procedures are NOT sent to Aeronautical Data Group.

c. When military DPs affect airspace under the jurisdiction of FAA facilities, those affected ATC facilities/ARTCCs must maintain copies of the applicable military or FAA procedure approval forms.

d. When a military DP has a CG established to clear obstruction(s) that uses a military exception (see Order 8260.3 regarding departure criteria), the procedure must be annotated NOT FOR CIVIL USE.

2-1-9. FAA 8260-15 Series Forms (see appendices D through G).

a. The 8260-15 series FAA forms document standard takeoff minimums and facilitate transmittal of nonstandard takeoff minimums and/or DPs. These forms will be the basis for charting agencies to publish non-standard takeoff minimums, DPs, and/or to add/delete charting icons used to denote that other than standard takeoff minimums and/or specific ODPs are published. For helicopter departures, see appendix F.

(1) Use FAA Form 8260-15A to document:

- (a) Standard takeoff minimums,
- (b) Nonstandard takeoff minimums and/or higher than standard CGs for a runway,
- (c) Textual ODPs,
- (d) That the ODP for a runway is published graphically, and
- (e) Other pertinent textual data for publication; e.g., obstacle data notes, VCOA data, etc.

(2) Use FAA Form 8260-15B to document:

- (a) Graphically depicted complex ODPs and all SIDs, and
- (b) Other pertinent procedural data; e.g., fixes, NAVAIDs, routes, vectoring areas, altitudes, etc. required for charting database development on RNAV DPs.

(3) Use FAA Form 8260-15C to document RNAV DPs in a manner consistent with and which aids in charting and database coding. Specifically use FAA Form 8260-15C to document:

- (a) The RNAV route of flight in terms of a series of segments defined by fix name, positions, waypoint type, leg types, course, and distance, and
- (b) Altitude and airspeed restrictions associated with fixes.

(4) Use FAA Form 8260-15D to document a DVA.

(5) Use FAA Form 8260-15E to document RNAV DP AAUPs for locations where it has been determined that detailed departure information is necessary. See paragraph 2-1-5.m. for AAUP guidance.

b. Administratively process the 8260-15 series FAA forms as specified in Order 8260.19, chapter 8. Additionally, when submitting procedures for waiver and/or Flight Standards approvals, include supporting documentation; e.g., for excessive CG approval, submit

documentation showing calculations. See Order 8260.19, chapter 2, for waiver and approval processing guidance.

c. Cancel FAA Form 8260-15(s) for specific takeoff minimums for an airport or cancel any textual or graphical DP(s) or DVA no longer required, as follows:

(1) Enter the current information from the top line of page 1 of FAA Form 8260-15A/B/D and into the corresponding blocks on blank FAA Form 8260-15A and/or FAA Form 8260-15B/8260-15D. Additionally, on FAA Form 8260-15B, complete the “Airports Served” section.

(2) Select “Cancellation” on the form and “Procedure Canceled Effective (Date)” will automatically appear in the “Takeoff Minimums” section on FAA Form 8260-15A and/or “DP Route Description” section of FAA Form 8260-15B. For a DVA, select “Cancellation” above the “For ATC Use Only” box where this information will be entered automatically. A stamp may be used for this purpose. Do not enter a cancellation effective date for Special procedures.

2-1-10. Periodic Review. Follow Order 8260.19 for periodic review requirements in addition to the following:

a. When reviewing DPs, ensure all DPs for an airport use the same ICA criteria.

b. Add a note to the periodic review documentation which ICA was used for the review (see paragraph 2-1-1.i. for examples).

2-1-11. Procedure Amendments. Amend all DPs using either the full amendment or an abbreviated amendment process as specified below.

a. General Information. A full amendment must ensure that periodic review requirements have been met for the procedures documented on the specific form being completed. A full amendment may be completed using the legacy ICA as long as all DPs for the airport use the legacy ICA.

(1) A full amendment requires a complete procedure package (i.e., all necessary forms, maps, and supporting documentation) be developed and submitted for processing.

(2) An abbreviated amendment only requires submission of FAA Forms 8260-15A or 8260-15B as applicable (and FAA Form 8260-15C, if an RNAV procedure) for processing. When the abbreviated amendment process is used, take steps to ensure all supporting documentation, e.g., maps, waiver/approval letters, etc., remain on file in the abbreviated amendment procedure package. Apply Order JO 8200.44, Flight Inspection Services Instrument Flight Procedure Coordination, when determining what must be submitted for flight inspection.

(3) Submit DPs designed by a non-FAA Service Provider to the FPAG to determine flight validation requirements.

(4) Flight Program Operations (or the FPAG for procedures not developed and/or flight inspected by the FAA) may establish unique/specific policy guidelines with individual procedure

development authorities, addressing specific situations that do not require submission for flight inspection/validation. Specify this exception (or exceptions) in either an FAA directive or policy memorandum controlled by the flight inspection/validation authority. Provide the FPAG a copy of all policy memorandums between Flight Program Operations and procedure developers.

(5) Paragraphs 2-1-1.f, 2-1-1.g, and 2-1-1.h apply when amending DPs.

b. Textual ODPs.

(1) When completing a full amendment, advance the amendment number in the “AMDT No.” item of FAA Form 8260-15A; e.g., “AMDT 1,” “AMDT 4.” When the “abbreviated amendment” process is used, an alphabetical suffix is added/advanced whenever the procedure is revised; for example, “ORIG-A,” “AMDT 5C.” The circumstances dictating the need for revision determine whether an amendment or abbreviated amendment may be made or whether the existing procedure must be canceled and an original established.

(2) Use P-NOTAMs to act as an “abbreviated amendment” for Textual ODPs to effect changes immediately and to generate a publication change, creating a letter suffix as noted in the above paragraph (also see Order 8260.19).

c. Graphic ODPs and SIDs.

(1) Whenever changing the “DP Name” in the title line of FAA Form 8260-15B, or changing the procedure “Type,” cancel the procedure and develop a new procedure.

(2) Both the full and the abbreviated amendment processes require the number in the procedure title to be increased; e.g., “SHEMP 2” increases to “SHEMP 3” [see paragraph 3-1-3.f.).

(3) Require a full amendment whenever a change is made to the items listed below as specified on FAA Form 8260-15B:

(a) DP route description (pertains to entire route charted to include leg lengths when applicable).

(b) Transition routes (adding/revising).

(c) Airports served (only when airports are added).

(d) When not using the legacy ICA criteria in Orders 8260.3/8260.46.

(4) Use an abbreviated amendment whenever a change is made to the items listed below as specified on FAA Form 8260-15B. Do not use a P-NOTAM to effect an abbreviated amendment for graphic ODPs and SIDs. See appendix D, section 2, and appendix E, section 1, for “Remarks” documentation requirements when an abbreviated amendment is used. An abbreviated amendment is only allowed when using the legacy ICA criteria and changes to takeoff minimums or takeoff obstacle notes are needed.

- (a) Transition routes (only when removing).
 - (b) Procedural data notes/Takeoff minimums (legacy ICA only).
 - (c) Takeoff obstacle notes (legacy ICA only).
 - (d) Lost Comm procedures.
 - (e) Additional flight data.
 - (f) Airports served (only when an airport ID, city/state has changed or an airport is deleted).
 - (g) Communications.
 - (h) Fixes and/or NAVAIDs (only those requested for charting purposes but *are not* included in the textual description of the departure or entered in the transition route data).
 - (i) Remarks (that will require a change to what will be charted on the procedure).
 - (j) Altitude changes (RNAV procedures require TARGETS assessment when altitude changes are made). This includes adding/revising Top Altitudes to a SID.
 - (k) Top altitude changes (adding/deleting/revising).
 - (l) Heading/course/track number changes made to support a magnetic variation (MV) update that does not alter the ground track of the existing procedure.
- (5) An amendment is not required for changes made to the items listed below as specified on FAA Form 8260-15B.
- (a) Controlling obstacle (that does not require a change to what will be charted on the procedure; note the change in the procedure package historical information and retain until a future amendment/abbreviated amendment form reflects this new controlling obstacle).
 - (b) Remarks (that do not require a change to what will be charted on the procedure).
- d. DVA.** Any change to a DVA is considered an amendment and requires a new FAA Form 8260-15D to be generated, establishing a new amendment number.

Chapter 3. Graphic Instrument Departure Procedures (DPs)

Section 3-1. General Guidance

3-1-1. General.

a. DPs must be designed so that they provide obstacle clearance, least onerous routing (where possible), and can be confidently and consistently flown by all aircraft expected to use the procedure.

b. A DP must be relatively simple and easily understood. To avoid chart complexity and human factors concerns, limit the number of airports and/or runways from which a particular DP may be used to only those necessary to support operations.

c. A DP should use only the minimum number of fixes, turns, or altitude changes necessary to depict the route.

d. A DP should be developed to accommodate as many different types of aircraft as possible.

e. A DP should avoid the use of DME arcs.

f. Graphic ODPs must be designed to terminate at a fix/NAVAID located within the IFR en route structure or at an altitude that will allow random IFR flight.

g. A SID must provide for a significant user/system benefit.

h. A SID must reduce pilot/controller communications and workload.

i. A SID must be designed to terminate at a fix/NAVAID located within the IFR en route structure, at an altitude that will allow random IFR flight, or at a position where ATC radar service is provided.

j. A transition may be developed from the end of a SID to support a need to take aircraft to additional fixes/NAVAIDs depicted on an IFR en route chart. A SID may contain multiple transitions and may share a common segment prior to branching off into multiple directions.

(1) When ATC requests an altitude restriction for a fix located on a transition route, it must be at or above the specified minimum en route IFR altitude (MEA) for the route [see paragraph 2-1-5.h.(2)(b)1]. Do not raise an MEA to support ATC operational requirements; use fix crossing altitudes where operationally needed.

(2) MEAs and minimum obstruction clearance altitudes (MOCAs) are required for all transitions as follows:

(a) Each MEA along the transition route (including FL 180 and above) must be documented on appropriate 8260-series FAA forms. By definition, the MEA also encompasses

the minimum reception altitude (MRA). If transitions share a common segment, make sure the MEA for that segment is the same for each transition.

(b) Each MOCA along the transition route must be documented on appropriate 8260-series FAA forms. To reduce chart clutter, do not chart MOCAs less than 500 feet below MEAs. Document MOCAs that are not to be charted when less than 500 feet below MEAs in the remarks section of the appropriate 8260-series FAA forms.

Example:

“REMARKS: DO NOT CHART MOCA: FROM MICKY TO TWN VORTAC, TWN VORTAC TO WSN VORTAC.”

k. Avoid speed restrictions whenever possible. See paragraphs 2-1-5.c. and 2-1-5.h.(4) for specific guidance.

l. Altitude.

(1) Limit the number of altitude requirements to the minimum necessary. ATC operational restrictions are not permitted on ODPs.

(2) Minimum and maximum block altitudes for the same fix/waypoint are permitted. See paragraph 2-1-5.h.(2) for specific guidance and charting constraints.

(3) Do not use multiple altitude restrictions at the same fix for different aircraft types or departure runways; e.g., “Turboprops cross GRAVY at-or-below 5000, Turbojets cross GRAVY at-or-above 6000” or “RWY 9: Cross XRRAY at 9000; RWY 27: Cross XRRAY at 11000.” See exception in paragraph 3-1-1.l.(6).

(4) Define crossing altitude restrictions as “at-or-above,” or “at-or-below or “at.” Use of “at-or-above” altitudes are preferred; avoid “at” and “at-or-below” altitudes whenever possible.

Note: Do not use “Expect” altitude restrictions.

(5) Procedure designers must use good judgment and common sense, coupled with operational input where available, to restrict procedural altitudes due to precipitous terrain.

(6) For SIDs, procedure designers will be provided the Top Altitude(s) for documentation on FAA Form 8260-15B (see also paragraph 2-1-5.h.(2)(e) and appendix D, section 2, or appendix E, section 1, for the top altitude variations permitted).

m. CG. DPs are designed assuming a minimum standard CG of 200 ft/NM (400 ft/NM for helicopters) to ensure required obstacle clearance is achieved.

(1) Higher CGs must be published when required for obstruction clearance and/or when needed to support a shortened ICA for LNAV engagement (see paragraphs 2-1-5, 2-1-5.h.(3)(c), and Order 8260.58 paragraph 5-1-1.c.(2) for specific guidance).

(2) Do not establish a greater than standard CG solely to reach an altitude sooner for LNAV engagement purposes when an early turn to support an RNAV leg is not necessary [see Order 8260.58 paragraph 5-1-1.c.(2)]. When this is needed (to support a radar vector segment) it is considered an ATC CG.

3-1-2. Minimum Safe Altitude (MSA). Graphic DP documentation must include MSA information for each airport served by the DP. Document the specified point the MSA is centered on followed by the sectors, when defined, and the altitude(s).

a. If the DP serves more than one airport:

(1) Precede the MSA information with the airport ID (see paragraph 2-1-1.j.) unless the specified point is the airport reference point (ARP).

(2) When all MSAs are defined by the same Omni-directional facility or use the ARP and all use the same altitude and sectors, when applicable, precede the MSA information with “ALL AIRPORTS” (see applicable examples below).

b. When a Omni-directional facility is the specified point:

(1) Enter the identification and type of facility.

Example:

Single airport: “XYZ VORTAC, 3700”

Example:

Multiple airports: “MDW: XYZ VORTAC, 3700; ORD: LMN VORTAC, 3500” or “ZZZ/PYYY: ABC NDB, 4000; WWW/PVVV: CDE VOR/DME, 3000” or “ALL AIRPORTS: XYZ VORTAC, 3700”

(2) If the omni-directional facility MSA is sectored, enter the information clockwise by sectors referenced to bearings from the omni-directional facility for charting.

Example:

Single airport: “XYZ VORTAC 360 CW 170, 4900; 170 CW 360, 3700”

Example:

Multiple airports: “MDW: XYZ VORTAC 360 CW 170, 4900 and 170 CW 360, 3700; ORD: XYZ VORTAC 360 CW 170, 4900 and 170 CW 360, 3700” or “ALL AIRPORTS: XYZ VORTAC 360 CW 170, 4900 and 170 CW 360, 3700”

(3) When the facility-to-airport distance exceeds 25 NM as defined in Order 8260.3 enter the distance in NM as follows:

Example:

“XYZ VORTAC, 3700 (28 NM)”

- c. When the ARP is the specified point use the airport ID.

Example:

Single airport: “XXX, 4000” or “AAA/PBBB, 4000”

Example:

Multiple airports: “XXX, 3700; VVV, 3500” or “ALL AIRPORTS: 3700” or “AAA/PBBB, 4000; BBB/PCCC, 8000”

3-1-3. Naming of DPs (see figure 3-1-1 through figure 3-1-8).

- a. Textual ODPs are not named, while all graphic ODPs and SIDs must be named as described in this section.

- b. SIDs designed using radar vectors as the only navigation source to the en route environment, are normally named to correspond with the terminal control facility name. For example, the SID from Tampa International Airport is named the TAMPA THREE; the SID from Greater Cincinnati Airport is named the CINCINNATI EIGHT. If the terminal control facility name is already in use, use a fix, city, airport, or geographical area name in that order.

- c. SIDs designed using a diverse vector area and radar vectors to a common specified route must be named to correspond to the fix/NAVAID/waypoint where the specified route ends. For example, the SID uses a diverse vector area and radar vectors to a fix/NAVAID/waypoint that begins a specified route to COTEE; the SID is named the COTEE ONE.

- d. DPs designed using conventional, RNAV, or required navigation performance (RNP) guidance must be named to correspond with the en route fix/NAVAID name where the DP ends. For example, a conventional DP from Altoona-Blair County Airport that ends at the TATES fix is named the TATES TWO DEPARTURE. If the DP is an RNAV procedure, the “(RNAV)” must be included in the name for example, TATES TWO DEPARTURE (RNAV). See appendix E to see how this will be documented for RNAV procedures.

- e. If two or more DPs end at the same fix/NAVAID, the second and subsequent procedures must be named for the city, airport, or geographical area in that order. For example, a SID from Greater Cincinnati Airport that ends at the REDSS fix is named the REDSS FOUR DEPARTURE. A SID from Cincinnati-Lunken Airport that also ends at the REDSS fix is called the LUNKEN SEVEN DEPARTURE.

- f. Number each original graphic DP “ONE.” Number subsequent amendments in numerical sequence through NINE and then start over with ONE (see paragraph 2-1-1.k. for the amendment process).

3-1-4. Transition Naming. DP transition names must always correspond with the fix/NAVAID where the transition ends. For example, the FORT LAUDERDALE SEVEN DEPARTURE termination fix is the Fort Lauderdale VORTAC (FLL) and it has a transition to the ZAPPA intersection; the transition name is ZAPPA. The REDSS FOUR DEPARTURE terminates at the REDSS fix and it has a transition to the Johnstown VORTAC (JST); the transition name is JOHNSTOWN.

3-1-5. Computer Identification Codes (see appendix B for examples).

a. Textual ODPs. Textual ODPs will not receive a computer identification code.

b. Graphic ODPs and SIDs. Computer identification codes are assigned to graphic DPs by using the abbreviated name of the DP; e.g., a NAVAID or airport three-letter NAVAID or airport three-letter ID, a four-letter geographical abbreviation, or a five-letter fix/waypoint name, or other five-letter code, followed by the current DP number, then a dot, followed by the fix/NAVAID ID where the DP ends. For example, the CINCINNATI EIGHT DEPARTURE in paragraph 3-1-3.d. is coded “CVG8.CVG”; the FORT LAUDERDALE SEVEN DEPARTURE in paragraph 3-1-4 is coded “FLL7.FLL” and the “TATES TWO DEPARTURE in paragraph 3-1-3.d is coded “TATES2.TATES.” A computer identification code is not required and; therefore, optional for radar vector SIDs that do not contain a specified or common route published as part of the SID; i.e., a SID based solely on radar vectors to the en route structure.

Note: In order to determine if a Computer Identification Code is to be established for a new (or can be removed from an existing) radar vector SID, the applicable ATC facility must be contacted to “confirm” what action is desired.

c. SID transition. SID transition computer codes are assigned by using the SID identifier and number as noted in paragraph 3-1-5.b, followed by a dot, followed by the identifier of the en route fix where the transition ends. Using the Fort Lauderdale example in paragraph 3-1-4, the ZAPPA transition is coded “FLL7.ZAPPA.” Using the REDSS example in paragraph 3-1-4, the Johnstown transition is coded “REDSS4.JST.

3-1-6. RNAV DPs. The following general criteria and guidelines apply only to DPs designed for exclusive use by certain RNAV-equipped aircraft. See the latest edition of Order 8260.58 for specific guidance and criteria.

a. Waypoints. Specify all waypoints as either fly-by or fly-over.

(1) Use fly-by waypoints whenever possible.

(2) Use fly-over waypoints only when operationally necessary or for obstacle clearance.

b. Leg types. Table 3-1-1 shows permissible leg types for use with RNAV DPs.

Table 3-1-1. Permissible leg types

| FROM | VIA (leg type) | TO |
|------------------|-----------------------------------|------------------|
| AER | CF ³ , DF ⁴ | FB/FO |
| AER | VI ¹ | See ¹ |
| AER | VA ² | ALT |
| AER | VM ⁸ | HDG |
| ALT | CF ³ , DF ⁴ | FB/FO |
| ALT | VM ² | ALT |
| FO ¹⁰ | HM | ALT |
| FB | TF ⁵ | FB/FO |
| FB | RF ⁶ | FB |
| FO | DF ⁴ , TF ⁵ | FB/FO |
| FO | VM ⁸ | HDG |
| FO/FB | FM ⁹ | Course |
| IF ⁷ | DF ⁴ , TF ⁵ | FB/FO |

¹ VI (Heading-to-intercept) may only be used as the first leg of a departure and must be followed by a course-to-fix (CF) leg.

² VA (Heading-to-an-altitude) may only be used as the first leg of a departure and must be followed by a direct-to-fix (DF) leg or a heading-to-manual termination (VM). The altitude must be an at-or-above altitude; a mandatory (i.e., “at”) altitude must not be used at the first fix. Do not use a VA leg specifically for engagement only. If the aircraft is climbing straight ahead there is no requirement to publish an engagement altitude [see paragraph 2-1-5.h.(3)(c) and Order 8260.58, paragraph 5-1-1.c.(2)].

³ CF may only be used as the first leg of a departure or as the leg following a departure VI leg.

⁴ DF may be used as the first leg of a departure, the leg following a departure VA leg, and for any leg thereafter to the DP termination fix; must be preceded by a fly-over (FO) waypoint (WP) only.

⁵ TF (Track-to-fix) is not used as the first leg of a departure. TF is the preferred leg after the first leg of a departure.

⁶ RF (Constant radius arc) may only be used when necessary because some users do not have RF capability. An RF leg may only be used after a TF, CF, or another RF leg.

⁷ IF (Initial fix) is used to designate the first fix of a departure transition, i.e., the IF is coincident with the DP termination fix. IF is also used to designate the point at which RNAV begins when used in conjunction with radar vectors.

⁸ VM legs are only to be used in conjunction with ATC radar vectoring.

⁹ FM (Course from a fix-to-manual termination) legs are used when requested by ATC and must be at an altitude at or above the minimum vectoring altitude or minimum IFR altitude for direction of flight.

¹⁰ HM legs are used when a climb in a holding pattern is required on departure to allow the aircraft to be at an altitude at or above the minimum vectoring altitude or minimum IFR altitude for direction of flight. See figure E-7 and figure E-13.

Note: AER – approach end of runway; ALT – altitude; FB– fly-by fix; FO– fly-over fix.

(1) VA leg followed by DF leg – “TAKEOFF RWY 32R: CLIMB ON HEADING 317.66 TO 1000, THEN CLIMBING RIGHT TURN DIRECT LARRY.”

(2) Although the first altitude of a VA/DF leg type sequence appears to be specified in the text instructions as a “mandatory” altitude, it must be documented on an FAA Form 8260-15C as an “at or above” altitude to ensure all the various types of aircraft avionics equipment operate appropriately.

(3) VA leg followed by VM leg – “TAKEOFF RWY 32R: CLIMB ON HEADING 317.66 TO 1500, FOR VECTORS TO LARRY.”

Note: This leg type combination is used for “Radar Vectors to Join RNAV Routes” DPs where ATC wants the aircraft to climb on a specified heading to an altitude prior to initiating radar vectors. Following the vectoring sequence, ATC is expected to issue a clearance direct to the IDF.

(4) RNAV DPs must use the word “direct” in the departure route description when the design incorporates a DF leg. Do not use the word “direct” for other leg types.

c. Leg length.

(1) Use the longest legs possible. The designer must consider speed and course changes when determining minimum leg length. See Order 8260.58 for specific minima.

(2) There is no maximum leg length for straight-line paths. Exception: Do not develop leg lengths in the en route environment exceeding 260 miles to ensure the geodesic path does not exceed the protected airspace for a great circle path.

d. For RNAV chart annotation see paragraph 2-1-5.j.

3-1-7. Examples of Various Graphic Departure Scenarios (see figure 3-1-1 through figure 3-1-8).

Figure 3-1-1. Graphic Departure Scenario #1, Obstacle DP with No Transitions

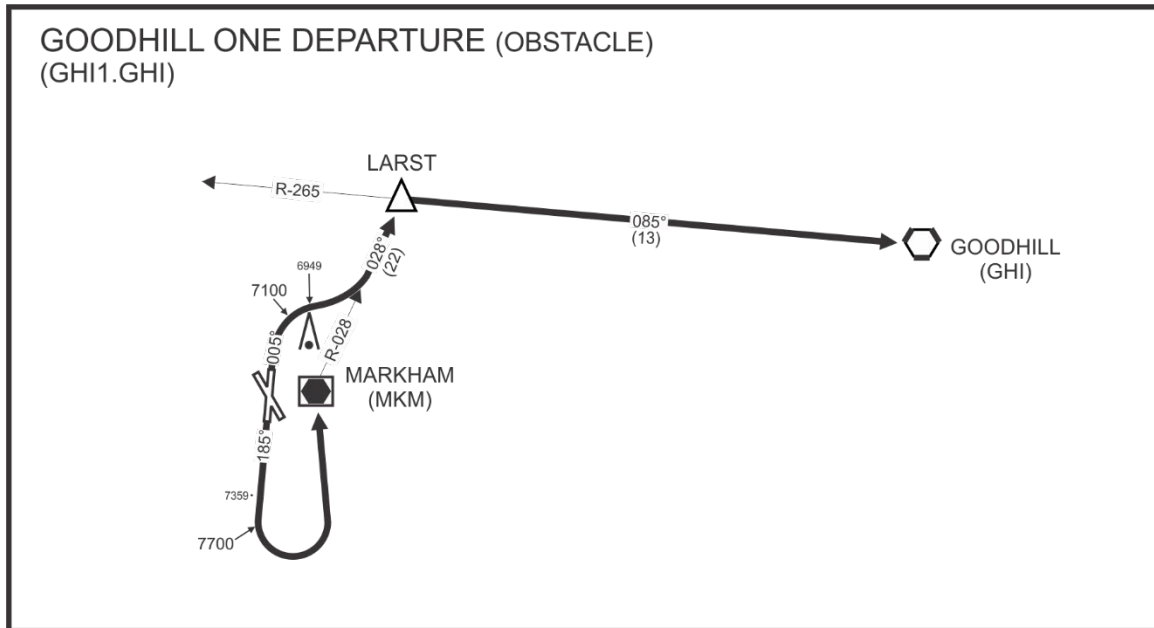
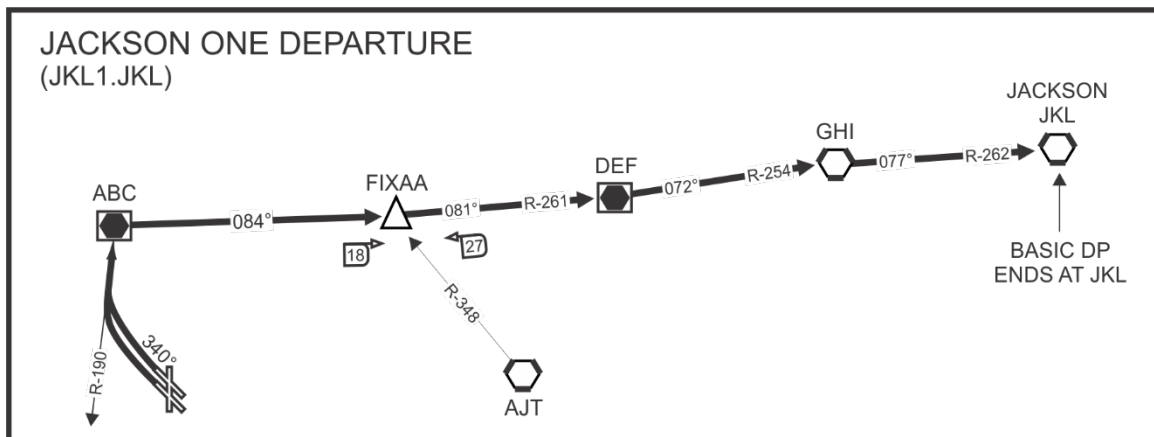


Figure 3-1-2. Graphic Departure Scenario #2, DP with No Transitions



**Figure 3-1-3. Graphic Departure Scenario #3,
DP with Two Transitions that Share a Common Segment**

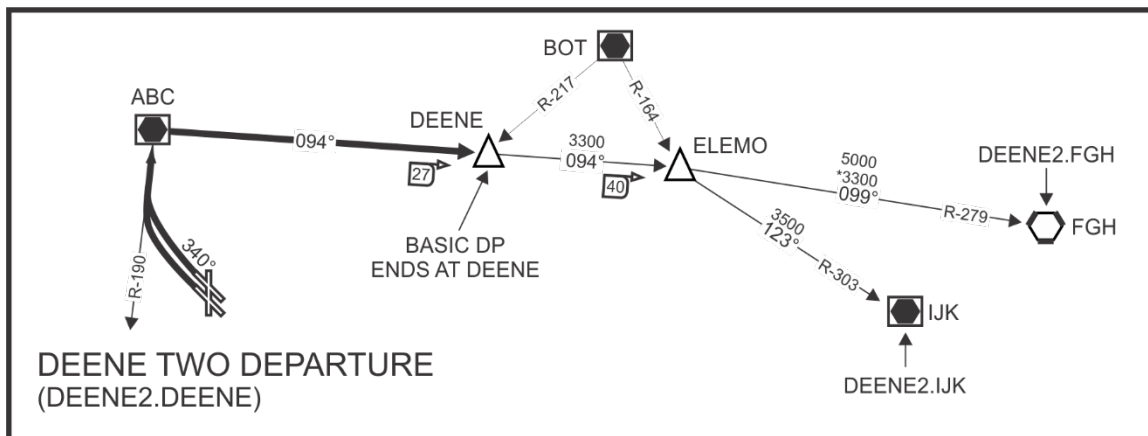


Figure 3-1-4. Graphic Departure Scenario #4, SID with Three Transitions

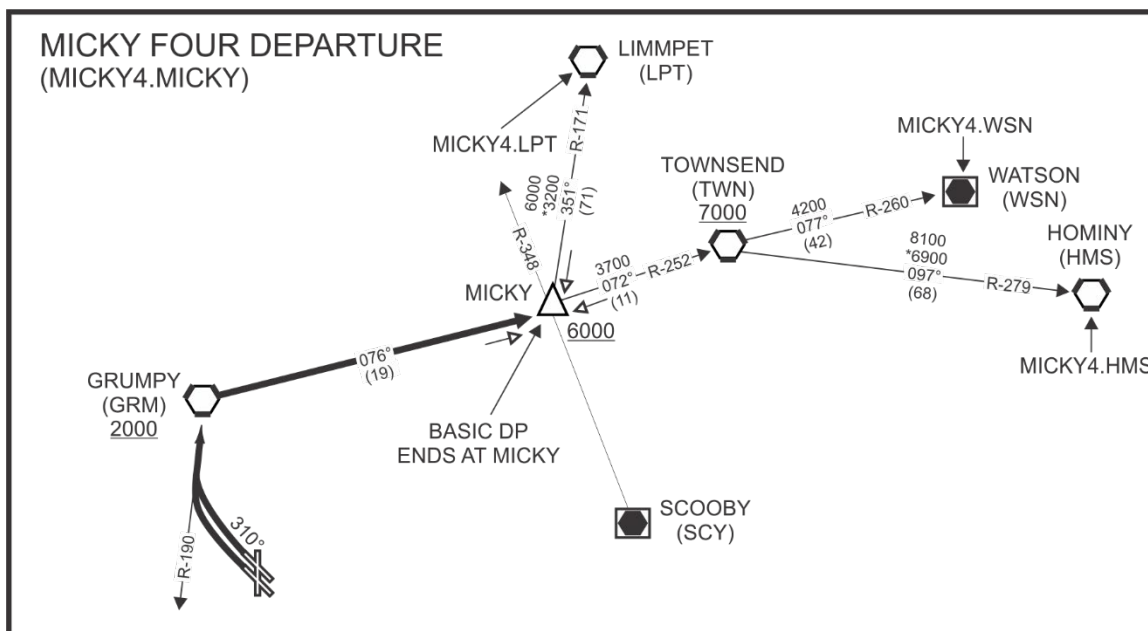


Figure 3-1-5. Graphic Departure Scenario #5, RNAV SID with Four Transitions

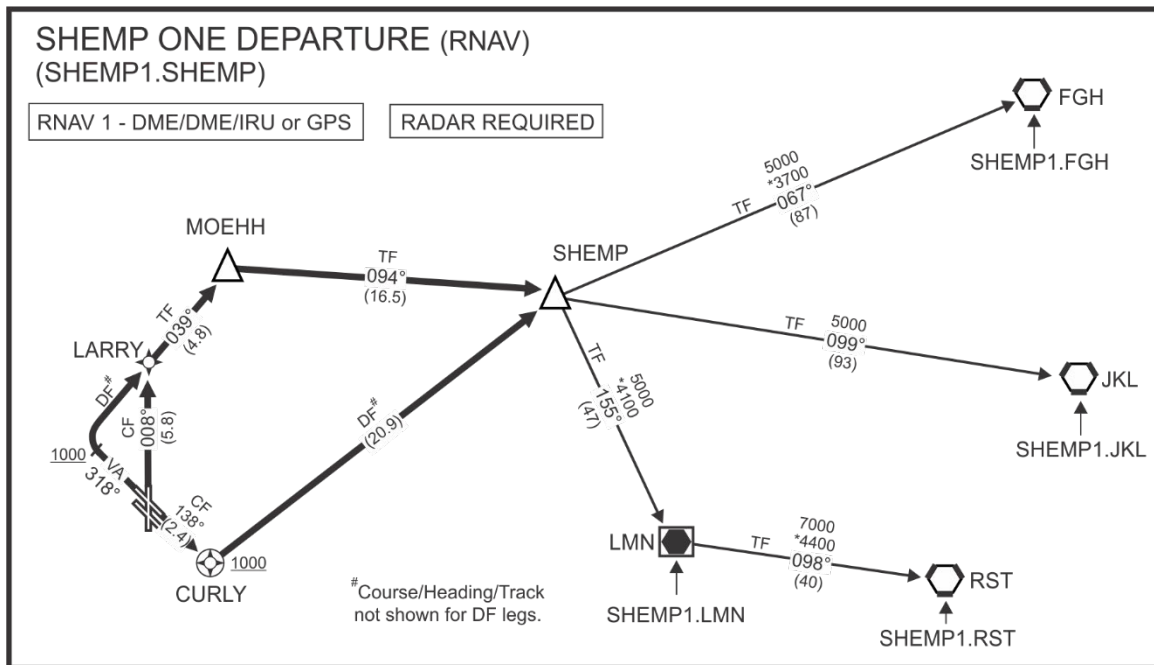


Figure 3-1-6. Graphic Departure Scenario #6, RNAV SID with Four Transitions

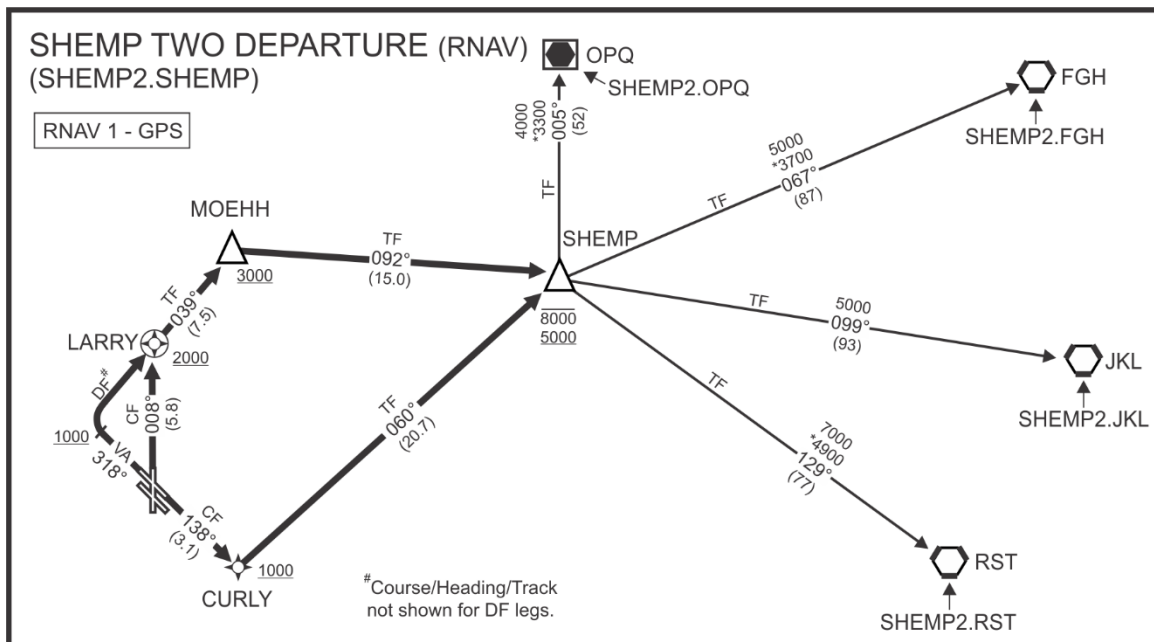
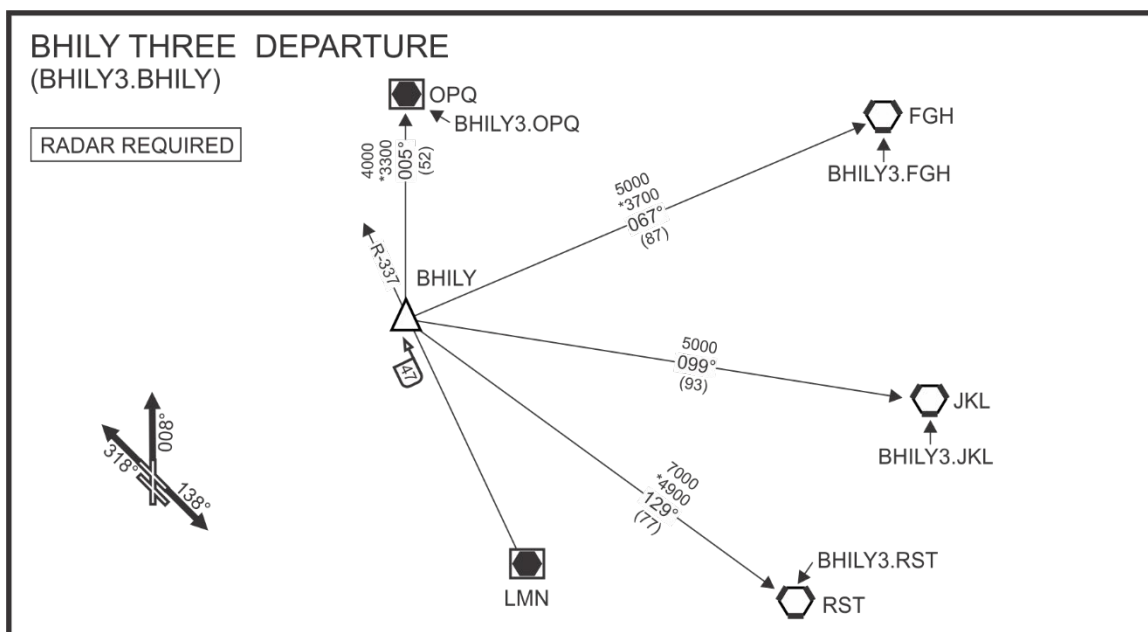
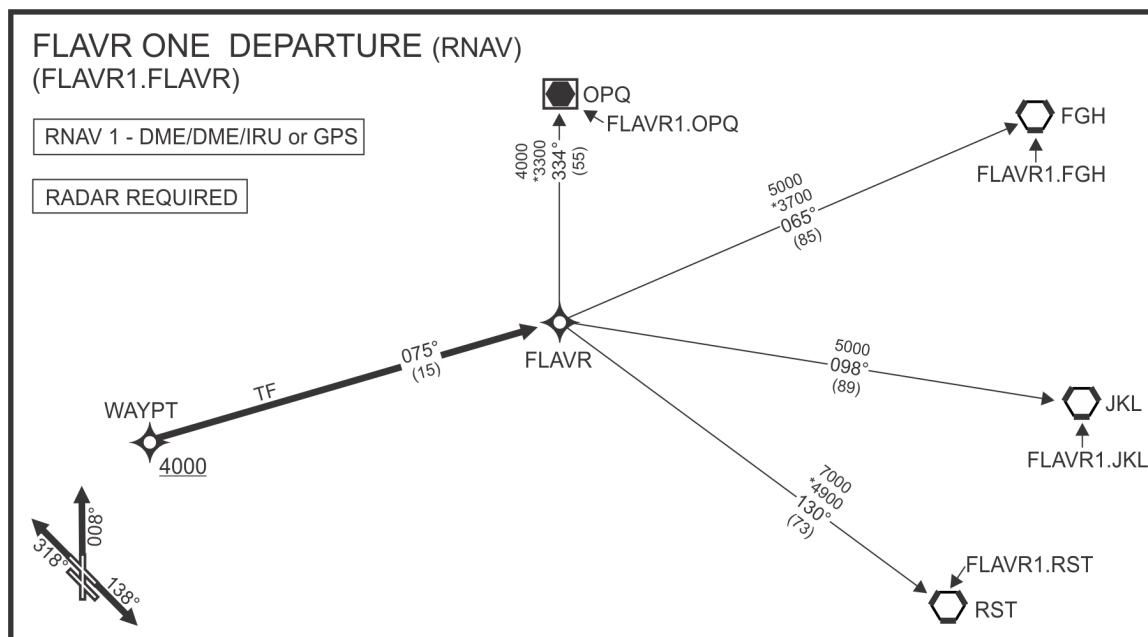


Figure 3-1-7. Graphic Departure Scenario #7, Radar Departure with Four Transitions**Figure 3-1-8. Graphic Departure Scenario #8, RNAV Departure Using Radar Vectors with Four Transitions**

Appendix A. Administrative Information

Section 1. General

1. Distribution. This order is distributed electronically only.

2. Background.

a. The original order combined into a single product, textual IFR DPs that were developed by the Aeronautical Information Services under the guidance of the Flight Standards Service, and graphic SIDs that were designed and produced under the direction of the ATO into a single product. This combined product introduced the new acronym, Departure Procedures (DP), to the pilot/controller community and the aforementioned terms of “IFR DP,” and “SID” were eliminated. The original order also provided for the graphic publication of IFR DP to facilitate pilot understanding of the procedure as well as all RNAV and RNP DPs, both those developed solely for obstruction clearance and those developed for system enhancement. Elimination of the term “SID” created undue confusion in both the domestic and international aviation communities. Therefore, in the interest of international harmonization, the FAA reintroduced the term “SID” in Order 8260.46B while also using the term “Obstacle Departure Procedures” to describe certain procedures. This order defines two separate types of DPs: SIDs and ODPs and provides policy guidance for the development and documentation of each.

b. The legacy ICA criteria was changed based on input from various stakeholders including industry, all FAA lines of business, military services, United States – Instrument Flight Procedures Panel, Aeronautical Charting Meeting, and the Society of Aircraft Performance and Operations Engineers. This harmonizes the ICA surface with airport surfaces surrounding the ICA. This criteria will also allow the pilot to quickly determine a ceiling/visibility/obstacle(s) position reference the extended runway centerline and DER, to visually avoid the obstacle(s) or a DER crossing height to avoid the obstacle(s) by climbing over them. The intention is to highlight, in a simple format, information that the pilot can use to determine a DER crossing height or ceiling/visibility to avoid the takeoff and low, close-in obstacles. Table 2-1-1, from previous versions of this order, was replaced with paragraph 2-1-3, ODP Documentation for Specific Design Combinations.

3. Related Publications. All references to related orders and publications apply to the latest edition.

a. Code of Federal Regulations.

- (1) 14 CFR part 91, General Operating and Flight Rules,
- (2) 14 CFR part 97, Standard Instrument Procedures.

b. FAA Advisory Circulars:

- (1) AC 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations, and

(2) 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System (NAS).

c. FAA Directives:

- (1) Order 1100.161, Air Traffic Safety Oversight,
- (2) Order 7210.3, Facility Operation and Administration,
- (3) Order 7400.2, Procedures for Handling Airspace Matters,
- (4) Order JO 7470.1, Distance Measuring Equipment (DME)/DME Infrastructure Evaluation for Area Navigation (RNAV) Routes and Procedures,
- (5) Order 8260.3, U.S. Standard for Terminal Instrument Procedures,
- (6) Order 8260.19, Flight Procedures and Airspace,
- (7) Order 8260.26, Establishing and Scheduling Standard Instrument Procedure Effective Dates,
- (8) Order 8260.43, Flight Procedures Management Program, and
- (9) Order 8260.58, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design.

d. Other Publications:

- (1) IAC No. 4, Interagency Air Committee Chart Specification for Instrument Approach Procedures and Airport Diagrams,
- (2) IAC No. 7, Interagency Air Committee Chart Specification for Graphic Instrument Departure Procedure Charts,
- (3) IAC No. 17, Interagency Air Committee Chart Specification for Terminal Procedure Publications, and

4. Forms and Reports. Appendices B, C, D, E, F, and G contain requirements data, applicable forms, and associated instructions.

5. Suggestions for Improvements. Please forward all comments on deficiencies, clarifications, or improvements regarding the contents of this order to:

- a.** The Directives Management Officer at 9-AWA-AFB-120-Directives@faa.gov or
- b.** Flight Technologies and Procedures Division at 9-AWA-AFS400-COORD@faa.gov.

Your suggestions are welcome. [FAA Form 1320-19, Directives Feedback Information](#), is available at the link provided as well as located at the end of this order for your convenience.

Section 2. Acronyms and Abbreviations

Acronyms and Abbreviations. Users of this order can refer to the following alphabetical listing of frequently used acronyms/definitions not listed in section 3 of this appendix.

Table A-1. List of Acronyms and Abbreviations

| Abbreviation | Explanation |
|--------------|---|
| AAO | Adverse Assumption Obstacle |
| AAUP | Attention All Users Page |
| AGL | Above Ground Level |
| AIRAC | Aeronautical Information, Regulation, and Control |
| ARTCC | Air Route Traffic Control Center |
| ASOS | Automated Surface Observing System |
| ATC | Air Traffic Control |
| ATS | Air Traffic System |
| AWOS | Automated Weather Observing System |
| CF | Course to Fix |
| CFR | Code of Federal Regulations |
| CG | Climb Gradient |
| CTAF | Common Traffic Advisory Frequency |
| DER | Departure End of Runway |
| DF | Direct to Fix |
| DME | Distance Measuring Equipment |
| DRP | Departure Reference Point |
| DVA | Diverse Vector Area |

| Abbreviation | Explanation |
|--------------|---|
| FM | Course from Fix to Manual Termination |
| FMS | Flight Management System |
| GPS | Global Positioning System |
| IAC | Interagency Air Committee |
| IAP | Instrument Approach Procedure |
| ICA | Initial Climb Area |
| ICAO | International Civil Aviation Organization |
| IFR | Instrument Flight Rules |
| IMC | Instrument Meteorological Conditions |
| IRU | Inertial Reference Unit |
| KIAS | Knot Indicated Airspeed |
| LNAV | Lateral Navigation |
| MEA | Minimum En route IFR Altitude |
| MIA | Minimum IFR Altitude |
| MOA | Military Operating Area |
| MOCA | Minimum Obstruction Clearance Altitude |
| MRA | Minimum Reception Altitude |
| MSL | Minimum Sea Level |

| Abbreviation | Explanation |
|--------------|---------------------------------|
| MV | Magnetic Variation |
| MVA | Minimum Vectoring Altitude |
| NAS | National Airspace System |
| NDB | Non-directional Beacon |
| NM | Nautical Mile |
| NOTAM | Notice to Air Missions |
| OCS | Obstacle Clearance Surface |
| OEA | Obstacle Evaluation Area |
| OSG | Operations Support Group |
| PBN | Performance Based Navigation |
| P-NOTAM | Permanent NOTAM |
| POC | Point of Contact |
| RF | Radius to Fix |
| RNAV | Area Navigation |
| RNP | Required Navigation Performance |
| RVR | Runway Visual Range |

| Abbreviation | Explanation |
|--------------|--|
| SID | Standard Instrument Departure |
| SIT | Site Implementation Team |
| SM | Statute Mile |
| TACAN | Tactical Air Navigation |
| TC | True Course |
| TERPS | Terminal Instrument Procedures |
| TF | Track to Fix |
| VA | Heading to Altitude |
| VCA | Visual Climb Area |
| VCOA | Visual Climb Over Airport |
| VFR | Visual Flight Rules |
| VI | Heading to Intercept |
| VM | Heading to Manual Termination |
| VOR | Very High Frequency Omni-directional Range |
| VORTAC | Very High Frequency Omni-directional Range/TACAN |

Section 3. Definitions

In addition to the definitions provided in Order 8260.3 the following definitions/acronyms are provided:

1. **Aeronautical Data Group.** The FAA office responsible for the collection, validation, and dissemination of all aeronautical information relating to the NAS.
2. **Approach end of runway (AER).** The first portion of the runway available for landing. If the runway threshold is displaced, use the displaced threshold Lat/Long as the AER.
3. **Area Navigation (RNAV) Departure Procedure (DP).** A DP developed for RNAV-equipped aircraft whose ground track is based on satellite or DME/DME navigation systems.
4. **Controller chart.** An aeronautical chart developed for internal ATC reference in specific ATC facilities. These charts may also be used to design instrument procedures to support ATC operations.
5. **Electronic transmission.** Transmittal via electronic mail (e-mail) or facsimile (fax).
6. **Flight Procedures Team (FPT).** An element of AJV, geographically located in each Air Traffic Service Area.
7. **Fly-by (FB) waypoint.** A fly-by waypoint requires the use of turn anticipation to avoid overshoot of the next flight segment.
8. **Fly-over (FO) waypoint.** A fly-over waypoint precludes any turn until the waypoint is overflown and is followed either by an intercept maneuver of the next flight segment or direct flight to the next waypoint.
9. **Initial Departure Fix (IDF).** “IF” is used for coding of the IDF. “IF” or “IDF” will not be placed on a departure chart in order to prevent confusion. The “IF” acronym is also used in conjunction with the intermediate fix of an instrument approach procedure.
10. **Instrument Flight Procedure (IFP) Validation Team.** A team located in each service center that will validate all IFP requests to ensure efficient use of FAA resources to benefit the NAS.
11. **Least onerous methods.** The use of obstacle DP criteria standards to clear terrain or other obstacles that will result in the lowest possible CG and/or route that provides the most efficient means for departing that runway.
12. **National Flight Data Digest (NFDD).** A daily publication, prepared by the Aeronautical Data Group to promulgate non-regulatory changes to the NAS.
13. **Navigational aid (NAVAID).** Any visual or electronics device airborne or on the surface which provides point-to-point guidance information or position data to aircraft in flight.

14. Non-RNAV DP. A DP whose ground track is based on ground-based NAVAIDs and/or DR navigation.

15. Obstacle departure procedure (ODP). A preplanned IFR DP printed for pilot use in textual or graphic form to provide obstruction clearance via the least onerous method from the terminal area to the appropriate en route structure. ODPs provide obstruction clearance and may be flown without ATC clearance unless an alternate DP (SID or radar vector) has been specifically assigned by ATC.

16. Proponent. The originator of a DP requirement. This may include an individual user group, ATC, Aeronautical Information Services, or other appropriate government agency.

17. Radar SID. A SID established when ATC has a need to vector aircraft on departure to a particular ATS Route, NAVAID, or fix.

18. Runway heading. The magnetic direction that corresponds with the runway centerline extended, not the painted runway numbers on the runway. Pilots cleared to “fly or maintain runway heading” are expected to fly or maintain the published heading that corresponds with the extended centerline of the departure runway (until otherwise instructed by ATC), and are not to apply drift correction; e.g., RWY 4, actual magnetic heading of the runway centerline 044.22 degrees, fly 044 degrees.

19. Service providers. Any organization, company, or person who designs and/or maintains instrument flight procedures.

20. Significant benefits. Tangible or intangible advantages resulting from the implementation of a DP such as fuel savings from reduced flight tracks and time, reduced inter-/intra-facility coordination, reduced communications between ATC and pilots, increased flexibility of airspace management and sectorization due to more predictable ground tracks, or other similar benefits to users or providers.

21. SID transition. A published segment used to connect the SID to one or several en route airways/jet routes.

22. Terminal Area Route Generation Evaluation and Traffic Simulation (TARGETS). An air traffic tool for RNAV DP design.

23. Top altitude. In reference to SID published altitude restrictions, the charted “maintain” altitude contained in the procedure description or assigned by ATC.

24. Transmittal letter (TL). A biweekly publication, prepared by Aeronautical Information Services, used as the medium to promulgate instrument approach procedures and textual ODPs and their effective dates for publication.

Appendix B. Graphic Departure Procedure (DP) Requirements Worksheet

Section 1. Instructions for Completing the Graphic DP Requirements Worksheet

1. General. This worksheet (see figure B-1) may be used to process changes to existing DPs. In such cases, only complete those lines needed to convey the request/recommendation.

Note: Proponents with the capability may use electronically generated FAA 8260-15 series forms (with graphic depiction included) instead of the Graphic DP Requirements Worksheet.

2. Complete the Graphic DP Requirements Worksheet. Enter all applicable information:

- a. Line 1 – Airport ID(s) (see paragraph 2-1-1.j.).
- b. Line 2 – City and State. Self-explanatory.
- c. Line 3 – DP Name and Computer Codes. Enter the proposed name of the DP and computer code. Use the naming and computer code conventions as outlined in chapter 3. Coordinate the proposed name(s) and code(s) with the servicing ARTCC to ensure there are no duplications.
- d. Line 4 – Action Required. Indicate whether a new procedure is being established or modifying an existing DP.
- e. Line 5 – Communications. Indicate the communications functions to be charted; e.g., ATIS, AWOS/ASOS, CTAF, CLNC DEL, DEP CON, etc. List specific frequency(ies) only when multiple frequencies are available at a facility and there may be confusion as to which should be assigned to the procedure, or if the frequency(ies) are unique to the procedure. Coordinate with ATC as necessary. Charting of the Departure Control frequency will occur automatically (without coordination). Other communication types will be depicted only when specifically requested. For additional frequencies requested by the IFP Validation Team or specified on the worksheet, specify Chart ATIS, CLNC DEL, etc.
- f. Line 6 – Route.
 - (1) Line 6.1 – Runway(s)/Helipad(s). Indicate the runway number(s) or helipad(s) the DP will serve.
 - (2) Line 6.2 – Initial Route from Runway. Indicate the desired initial route(s) that is required. If known, specify the single heading/course, or range of headings for each runway authorized for the SID.
 - (3) Line 6.3 – ATC Requested Routing/Operational Parameters. Enter any information that would assist the procedure developer by providing flexibility in ground tracks. For example, if ATC needs the departure track to go generally south and join a route at a specified point and the exact ground track is not important, so state. Conversely, if there is flexibility to the east but there is an operational constraint to the west, that information must be provided. In extraordinary

cases, when exact ground track is the primary concern in RNAV DPs, specify desired routing. ATC should specify the routing based on ATC needs.

(4) Line 6.4 – Fix(es). Enter each fix in the order flown. For the Departure IF, either indicate a specific point or at least describe the factors constraining the placement of the fix. Enter coordinates to the nearest 0.01 arc second when known. The TARGETS distribution package will satisfy this requirement. If used, enter the statement “See attached (DP name) TARGETS distribution package dated (date).”

Note: If an existing fix/NAVAID is used, enter only the fix name/facility type and ID, and any altitude restriction at the fix.

(5) Line 6.5 – ATC Required Altitudes. Enter any altitude restrictions associated with each fix.

(6) Line 6.6 – Enter the “Top Altitude(s)” (SID Only). For multiple airports, include the Airport ID (see paragraph 2-1-1.j.) and/or specific runways when “Top Altitudes” differ between airports and/or runways [see paragraph 2-1-5.h.(2)(e)]. When identifying a top altitude as “AS ASSIGNED BY ATC” paragraph 2-1-5.h.(2)(e)3.b and 2-1-5.h.(2)(e)3.c apply.

g. Line 7 – Transitions. (NA for ODPs)

(1) Line 7.1 – Identification. Enter the proposed name and computer code of each transition (see block 3).

(2) Line 7.2 – Transition Fix(es) (see block 6.4).

(3) Line 7.3 – ATC Required Altitudes (see block 6.5).

(4) Line 7.4 – ATC Operational Parameters (see block 6.3).

h. Line 8 – Lost Communications. List specific lost communications instructions if other than 14 CFR Part 91.185 (standard).

i. Line 9 – Graphic Depiction. Provide a basic sketch of the procedure. The sketch may be hand drawn, computer generated, or overlaid on the appropriate portion of a controller chart. It is not necessary for the sketch to be to an exact scale. The intent here is to provide the procedure developer with a visual correlation of the textual route description.

j. Line 10 – Requested Publication Date or Airspace Docket Number. Enter the desired effective date that coincides with the charting cycle. If the DP effective date is to be concurrent with an airspace action, enter the docket number, which may be obtained from the applicable ATO Service Area. See Order 8260.26, appendix A for chart dates and lead-time for submission.

k. Line 11 – Remarks.

(1) Indicate that the environmental review under Order 1050.1 (latest edition) and the noise screening have been accomplished.

(2) Enter appropriate information to clarify a data entry; e.g., airspeed restriction for air traffic, maximum altitude for aircraft performance, etc.

(3) If the proposed DP does not meet the criteria requirements in paragraphs 2-1-1 through 2-1-5, a statement of justification is necessary to explain why a DP is required. Avoid publication of unnecessary DPs.

(4) Identify which ICA is to be used for procedure evaluation and design. When a DP serves multiple airports document the airport ID associated with the ICA design to be used for the procedure design and evaluation.

Example:

“Use Order 8260.3X – Chg X, Legacy ICA for design and evaluation.” or “Use Order 8260.3X – Chg X, ICA for design and evaluation.”

Example:

Multiple airports: “ZZZ: Order 8260.3X – Chg X, Legacy ICA used for design and evaluation; XXX, YYY: Order 8260.3X – Chg X, ICA used for design and evaluation.”

(5) When applying Order 8260.3, paragraph 13-3-3.a.(3)(f) document the ATC Facility Operating Procedures highest altitude of the airspace as the restriction that will be used for the evaluation.

Example: “Request highest airspace altitude restriction at (fix name) for evaluation based on facility SOP is 10,000 ft. Do not chart.”

I. Line 12 – Point of Contact (POC). Self-explanatory.

Figure B-1. Graphic Departure Procedure (DP) Requirements Worksheet1. **Airport(s)** _____2. **City and State** _____3. **DP Name** _____ **Computer Code** ____4. **Action Required:** Establish ____ Amend ____

5. **Communications:** Enter an X in the space provided next to the communications function listed.
 Enter specific frequency(ies) only when multiple frequencies are available at a facility and there may be confusion as to which should be assigned to the procedure, or if the frequency is unique to the procedure.

ATIS _____ AWOS/ASOS ____ CLEARANCE DELIVERY ____ GROUND _____

TOWER _____ CTAF _____ DEPARTURE CONTROL _____ ARTCC _____

6. **Route:**6.1. **Runway(s)** _____ **Helipads/Vertiports** _____6.2. **Initial Route From Runway** _____6.3. **ATC Requested Routing/Operational Parameters** _____6.4. **Fix(es):**

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

6.5. **ATC Required Altitudes:** _____6.6. **Top Altitudes:** _____

Figure B-1. Graphic Departure Procedure (DP) Requirements Worksheet (Continued)**7. Transitions:** (Not allowed for graphic Obstacle Departure Procedures (ODPs))**7.1 Identification:**

NAME _____ COMPUTER CODE _____

NAME _____ COMPUTER CODE _____

NAME _____ COMPUTER CODE _____

NAME _____ COMPUTER CODE _____

NAME _____ COMPUTER CODE _____

7.2 Transition Fix(es):**Note:** If fix/NAVAID is currently published on an en route chart, enter only the fix name and/or facility ID, and required altitude.

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ LAT/LONG _____ ALT _____

7.3. ATC Required Altitudes: _____**7.4. ATC Operational Parameters:** _____**8. Lost Communications:** _____

Figure B-1. Graphic Departure Procedure (DP) Requirements Worksheet (Continued)**9. Graphic Depiction:**

Note: Depiction must clearly portray intended routing, fixes, NAVAIDs, and altitudes to be used in the DP. A separate sheet may be used.

10. Request Publication Date or Airspace Docket Number**11. Remarks:****12. Point-of-Contact:**

ATC Facility Name.

POC's Name.

Telephone Number.

Fax Number.

E-Mail Address.

Appendix C. FAA Form 8260-2, Data Worksheet

Section 1. Instructions for Completing the FAA Form 8260-2, Data Worksheet

1. General. See figure C-1 for requesting modification of fixes (including “Fix Use” updates) and/or holding patterns associated with existing 14 CFR part 95 routes, 14 CFR part 97 approaches, Special procedures, SID, or STARs.

2. Complete and Submit FAA Form 8260-2 Data Worksheet.

a. The Data Worksheet should be submitted to the Office of Primary Responsibility (OPR) identified on FAA Form 8260-2 for proper action to be taken.

b. For those fixes/holding patterns documented on older versions of FAA Form 8260-2 that do not contain an OPR listed, contact Aeronautical Data Group, for a determination on where to submit this request.

c. Enter as much information as possible and explain the addition or deletion in Block 10, Remarks.

(1) Block 1. Requested Publication Date. Enter the desired effective date that coincides with the charting cycle (see Order 8260.26, appendix A). If FAA Form 8260-2 request is to be in conjunction with an airspace action, obtain the docket number from the Western, Central, or Eastern Service Area for En Route Operations, Airspace Group. For FAA Form 8260-2 requests, allow at least 20 weeks lead-time from the desired effective date.

(2) Block 2. Fix Name. Enter the five-character pronounceable name obtained from ARTCC. Do not include “WP” as part of the name. If requesting holding at a NAVAID, enter the name and type of NAVAID.

(3) Block 3. Fix Type. List the type(s) of fix, e.g., RADAR, WP, DME, INT (made up of crossing radials, bearings, or combinations of both).

(4) Block 4. State. Enter the state in which the fix is located.

(5) Block 5. ICAO Region Code. Enter the ICAO Region code in which the fix is located.

(6) Block 6. Location. Latitude and longitude accurate to the hundredth of a second; e.g., 09.25 sec. List all navigational aids used for the fix makeup. Provide radials or bearings, DME, and distance values to the hundredth value; e.g., 347.23°; 08.37NM.

(7) Block 7. Type of Action Required. Check applicable box to establish, modify, or cancel the fix. If there is no change to the fix, check “no change.”

(8) Block 8. Holding. Describe holding patterns required at a fix. When climb-in-holding is required, provide detailed holding instructions including maximum altitude and maximum speed (if other than standard).

(9) Block 9. Charting. Indicate required charting; i.e., terminal, SIDs, STARs, or en route charts.

(10) Block 10. Remarks. List all procedures which use the fix and other uses of the fix; e.g., reporting points, etc. Include any other information that may assist in developing the fix. Justify the requirement for other than routine processing and charting.

(11) Block 11. Point-of-Contact (POC). Self-explanatory.

Figure C-1. Form 8260-2, Data Worksheet

| | |
|---|---|
| 1. Requested Publication Date: | _____ |
| 2. Fix Name: | _____ |
| 3. Fix Type: | _____ |
| 4. State: | _____ |
| 5. ICAO Region Code: | _____ |
| 6. Location: | _____ |
| 7. Type of (Fix) Action Required: | Establish <input type="checkbox"/> Modify <input type="checkbox"/> Cancel <input type="checkbox"/> No Change <input type="checkbox"/> |
| 8. Holding: | _____ _____ |
| 9. Charting: | _____ |
| 10. Remarks (Use additional paper if required): | |

11. Point of Contact (POC):

ATC Facility Name.

POC's Name.

Telephone Number.

FAX Number.

E-Mail Address

Appendix D. FAA Form 8260-15A, Takeoff Minimums and Obstacle Departure Procedures (ODP) and Sample Forms

Section 1. Instructions for Completing FAA Form 8260-15A

1. General. Document a separate FAA Form 8260-15A for each airport with approved instrument procedures.

a. If all runways are standard (e.g., no ODP required), then state “Standard.” The form must encompass all runways for that airport.

b. Apply paragraph 2-1-3 and this section for documentation of DP route, obstacles (take off/low, close-in) and minimums for specific runway.

2. Complete FAA Form 8260-15A. Enter all applicable information. When entering a date use the following format: MM/DD/YYYY.

Note: The procedure name derived from the title line must be included in all correspondence and documentation.

a. Airport ID (see paragraph 2-1-1.j.).

b. City and State. Complete this section with the same location data as on the associated approach procedure(s).

c. AMDT No. Enter standard entry as on Standard Instrument Approach Procedures (SIAP).

d. Actual Effective Date. Leave blank. Aeronautical Information Services will normally add the effective date. Enter an effective date only when a specific effective date is required; e.g., MV rotation. If the procedure is a “Special,” FPAG’s designated personnel will enter the effective date.

e. Takeoff Minimums. Enter takeoff minimums as directed in paragraph 2-1-3 (Legacy; do not document DER crossing height or separate low, close-in and takeoff minimums obstacles); however, do not list Takeoff Minimums for the runway(s) served by a graphic ODP [see paragraph 2-1-2.c.(4)].

(1) List the runway(s) that are not authorized for IFR departures. If no design options are feasible, or if another reason(s) precludes ODP design (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 9, 31: STANDARD.

RWY 9L/R: STANDARD.

Followed by:

- (3) List the runway(s) that have any deviations from standard minimums and/or restrictions (see paragraph 2-1-3.). For helicopters, see appendix F.

f. TEXTUAL DP.

- (1) When a specific departure route is necessary, provide the complete text, by runway, for required DPs (see paragraph 2-1-3. and this section, as appropriate).

(a) When a climb to an altitude is necessary before turning, define the limitation as clear and simple as possible when limiting the initiation of a turn; e.g., “RWY 36: CLIMB ON HEADING 350.11 TO 2800 BEFORE TURNING LEFT.”

Note: Procedure designers must consider the impact on local ATC operations when using such phrases as “before turning” or “before proceeding on course.” Additionally, more emphasis may be necessary to define a turn in a certain direction, for example, “before turning left/right” or “before turning east/north,” etc.; therefore, coordinate these actions with ATC to ensure compatibility with the local operating environment. In addition, these words describe better for the pilot where the penetrations are located relative to the runway end.

(b) 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.

(c) 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 ON HEADING 350.05..., THEN CLIMBING RIGHT TURN TO INTERCEPT BEARING 020.06 FROM ABC NDB TO 6000 BEFORE PROCEEDING ON COURSE; or RWY 35: CLIMB ON HEADING 030.04..., THEN ON COURSE 015.02 TO ABC NDB TO 4000 BEFORE PROCEEDING ON COURSE.

(d) When an 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 061.02 CW TO 228.26 FROM DEPARTURE END OF RUNWAY, OR MINIMUM CLIMB OF 260 FT/NM TO 8700 FOR HEADINGS 229.09 CW TO 300.25.”

(e) 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 TO 3000 BEFORE TURNING.”

(f) When the departure instructions must be graphically depicted, inform the pilot of the name of the default Obstacle DP, and submit an accompanying FAA Form 8260-15B; e.g., Use standard Note: “USE JONES DEPARTURE” when the graphic obstacle DP serves all runways or use “RWY 27: USE SMITH DEPARTURE” when the graphic obstacle DP serves only a specific runway.

(2) It is not appropriate to use the wording “Comply with ODP or....” This could be confusing and cause the pilot to use a different routing than was expected by ATC.

(3) Do not use the phrase “...or comply with ATC instructions.” The pilot is aware that ATC instructions are to be complied with, when possible, and safety of flight is not compromised.

(4) Specify a single obstacle DP. Do not provide an option to use a SID as the default ODP. For example, do not use “Climb runway heading to 1200 before turning or use Manchester Departure.”

g. Visual Climb Over Airport (see paragraph 2-1-3.e.).

h. Takeoff Obstacle Notes.

(1) Enter a note regarding obstacles that penetrate the 40:1 OCS in the ICA (extended 3 SM). On FAA Form 8260-15A, do not list takeoff obstacles for the runway(s) served by a graphic (default) ODP as described in appendix D, section 2.

Note: Do not identify/publish an adverse assumption obstacle (AAO) as a “takeoff obstacle” because pilots are not familiar with the AAO concept. However, publishing a ceiling and visibility will allow for those situations where the CG cannot be achieved and still afford the pilot the opportunity to visually acquire and avoid any obstruction that could have been built without notice to the FAA.

(2) Legacy; the note must include the runway affected and inform the pilot of the obstacle(s) type and location relative to the DER/extended RCL 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, note the most significant obstacles left and right of the runway centerline and when applicable on centerline or crossing centerline. Phrases such as “multiple antennas, numerous trees, etc.” are acceptable. Also, when identifying these obstacles, be as descriptive as reasonably possible so as to provide the pilot a clear understanding of what to prepare and/or look for; e.g., instead of just saying “power poles,” it

would be more helpful to use the descriptor of “power lines” in some instances. Another example would be instead of just saying “terrain,” if applicable; use of “ridgeline” or “bluff” would provide a clearer picture. Specify distances 1 NM or greater to the nearest whole and tenth of a NM (e.g., 2.1 NM FROM DER). Specify distances less than 1 NM in feet (e.g., 1280 FT FROM DER).

Legacy; Examples:

RWY 35: TREES 1280 FT FROM DER, 120 FT LEFT OF CENTERLINE, 50 FT AGL/1527 FT MSL.

RWY 35: BUILDING 2.1 NM FROM DER, 160 FT LEFT OF CENTERLINE, 350 FT AGL/1927 FT MSL.

RWY 17: MULTIPLE BUILDINGS 500 FT FROM DER, 350 FT RIGHT OF CENTERLINE, 50 FT AGL/1107 FT MSL. ANTENNA 6000 FT FROM DER, 1235 FT LEFT OF CENTERLINE, 200 FT AGL/1257 FT MSL.

RWY 27: MULTIPLE TREES AND ANTENNAS BEGINNING 500 FT FROM DER, 350 FT RIGHT OF CENTERLINE, UP TO 110 FT AGL/1307 FT MSL.

RWY 17: VEHICLES ON ROAD 660 FT FROM DER, CROSSING EXTENDED RUNWAY CENTERLINE, 18 FT AGL/962 FT MSL.

(3) Charting agents must publish these obstacle notes.

i. Controlling Obstacles. For all DPs, the controlling obstacle is that obstacle which, having penetrated the 40:1 OCS, causes the most adverse CG, CGTA, climb-to altitude, ceiling, and visibility, and/or DER crossing height (Legacy: do not apply) to be published.

(1) Document the controlling obstacle(s) that penetrate the 40:1 OCS within/outside the ICA. When there is more than one controlling obstacle to be documented, following the coordinates, include what entity it applies too; i.e., “(CEILING),” “(VISIBILITY),” “(CLIMB GRADIENT),” “(CLIMB GRADIENT TERMINATION ALTITUDE),” “(CLIMB-TO ALTITUDE),” or [DER CROSSING HEIGHT (Legacy: do not apply)].” On FAA Form 8260-15A, do not list Controlling Obstacles for the runway(s) served by a graphic default ODP as described in appendix D, section 2.

(2) 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: 2049 FT MSL ANTENNA 341548.01N/0862101.05W.”

(3) Document the obstacle(s) that mandated design of a specific textual ODP route. These obstacles are not considered the “controlling obstacles” because they are not a factor to the specified route being flown. Do not chart this information on the procedure. Document these obstacles as follows:

“OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 36: 2049 FT MSL ANTENNA 341658.01N/0863108.05W.”

(4) Document the highest obstacle *within* the visual climb area (VCA) of a VCOA. If the “climb to” altitude is based on an obstacle located *outside* the VCA, then also document that obstacle. Do not chart this information on the procedure. Document as follows:

“VISUAL CLIMB AREA OBSTACLE: 908 FT MSL STADIUM 360732.50N/0970359.30W.”

And if applicable:

“OBSTACLE OUTSIDE VISUAL CLIMB AREA MANDATING VCOA CLIMB TO ALTITUDE: 2049 FT MSL BUILDING 360712.72N/0970424.60W.”

j. Remarks. List information/data that is not normally charted; e.g., administrative data or notes for controller information (requested by ATC). However, if something does need to be charted, precede the text with “Chart:”. See Order 8260.19, for a chart note that is required if the ODP is a Special. General chart notes (not Takeoff Minimums or Departure Instructions Notes) need to include instructions to the chart organization to place the note at the bottom of the entry. Use the following format: “Chart note at bottom of entry...” Document as the first entry, “Special Use Procedure,” if the ODP is at a private airport and will not be published under 14 CFR part 97. Identify the ICA criteria used. Apply paragraph 2-1-1.i. to document the ICA criteria and the Order 8260.3 version.

k. Flight Inspected By. Enter the information as defined in paragraph 2-1-1.k., as appropriate.

l. Developed By. Enter the information as defined in paragraph 2-1-1.k., as appropriate.

m. Approved By. Enter the information as defined in paragraph 2-1-1.k., as appropriate.

n. Required Effective Date.

(1) Enter the effective date as noted in Order 8260.19 (latest edition), chapter 8. Optimally, submit as routine. En route submission cutoff dates apply to graphic DPs. If FAA Form 8260-15A represents a concurrent action, enter “CONCURRENT” followed by the necessary information; e.g., Airport ID (see paragraph 2-1-1.j.), IAP name and amendment number; airspace action, or other event.

(2) When documenting Standard Takeoff Minimums where all runways have a clear 40:1 Obstacle Clearance Surface (i.e., No ODP or obstacle notes required), enter “N/A.”

o. Coordinated With. Specify the offices/organizations the procedure was coordinated. DP coordination must be identical with the approach procedure coordination as outlined in Order 8260.19 (latest edition), chapter 8.

p. Changes/Reasons. List changes and reasons relating to data entries on page one. Additionally, when a VCOA cannot be established, an explanation must be provided; e.g., “VCOA not established at ATC request due to (Reason).”

Figure D-1. FAA form 8260-15A Legacy Example

| FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP) TITLE 14 CFR PART 97.37 | | | | |
|--|------------|---------------|-------------|---------------------------------------|
| <small>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.</small> | | | | |
| AIRPORT ID | CITY | STATE | AMDT NO | ACTUAL EFFECTIVE DATE |
| MLS | MILES CITY | MT | ORIG | |
| | | | | CANCELLATION <input type="checkbox"/> |
| TAKEOFF MINIMUMS: STANDARD | | | | |
| TEXTUAL DEPARTURE PROCEDURES: | | | | |
| VISUAL CLIMB OVER AIRPORT: | | | | |
| TAKEOFF OBSTACLE NOTES: | | | | |
| CONTROLLING OBSTACLES: | | | | |
| REMARKS: | | | | |
| FLIGHT INSPECTED BY | | OFFICE | DATE | |
| DEVELOPED BY | | OFFICE | DATE | |
| APPROVED BY | | OFFICE | DATE | TITLE |
| REQUIRED EFFECTIVE DATE: ROUTINE | | | | |
| COORDINATED WITH: | | | | |
| A4A <input type="checkbox"/> ALPA <input checked="" type="checkbox"/> AOPA <input checked="" type="checkbox"/> APA <input checked="" type="checkbox"/> HAI <input type="checkbox"/> NBAA <input checked="" type="checkbox"/> OTHER: ARPT MGR, ZNY, ZDC | | | | |
| CHANGES - REASONS: | | | | |

Figure D-2. FAA form 8260-15A Legacy Example

| 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. | | | | |
| AIRPORT ID | CITY | STATE | AMDT NO | ACTUAL EFFECTIVE DATE |
| HCK | DANVILLE | TX | ORIG | |
| CANCELLATION <input type="checkbox"/> | | | | |
| TAKEOFF MINIMUMS: RWY 1: NA - OBSTACLES RWY 32: STANDARD RWY 14: 500-2 OR STANDARD WITH MINIMUM CLIMB OF 330 FT PER NM TO 1200 RWY 19: STANDARD WITH MINIMUM CLIMB OF 214 FT PER NM TO 1100, OR ALTERNATIVELY WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT. TAKEOFF MUST OCCUR NO LATER THAN 2000 FEET PRIOR TO DER OR 1000-2 FOR VCOA. | | | | |
| TEXTUAL DEPARTURE PROCEDURES: RWY 32: CLIMB ON HEADING 317.66 TO 2200 BEFORE TURNING LEFT | | | | |
| VISUAL CLIMB OVER AIRPORT: RWY 19: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS HICKORY REGIONAL AIRPORT AT OR ABOVE 1300 BEFORE PROCEEDING ON COURSE. | | | | |
| TAKEOFF OBSTACLE NOTES: RWY 14: BUILDING 1.9 NM FROM DER, ON RWY CENTERLINE, 478 FT AGL/974 FT MSL. RWY 32: TREES 143 FT FROM DER, 25 FT LEFT OF CENTERLINE, 21 FT AGL/498 FT MSL. | | | | |
| CONTROLLING OBSTACLES: RWY 14: 974 FT MSL BUILDING 324911.09N/0964838.62W RWY 19: 922 FT MSL TOWER 324748.00N/0965137.00W RWY 32: 1049 FT MSL TOWER 325216.19N/0965523.02W RWY 19 (VCOA): 974 FT MSL BUILDING 324911.09N/0964838.62W | | | | |
| OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 32 - 1539 FT MSL TOWER 325249.09N/0965639.66W | | | | |
| REMARKS: | | | | |
| FLIGHT INSPECTED BY | | OFFICE | DATE | |
| DEVELOPED BY | | OFFICE | DATE | |
| APPROVED BY | | OFFICE | DATE | TITLE |
| REQUIRED EFFECTIVE DATE: CONCURRENT WITH KHCK RNAV (GPS) RWY 14, ORIG | | | | |
| COORDINATED WITH: | | | | |
| A4A <input type="checkbox"/> ALPA <input checked="" type="checkbox"/> AOPA <input checked="" type="checkbox"/> APA <input checked="" type="checkbox"/> HAI <input type="checkbox"/> NBAA <input checked="" type="checkbox"/> OTHER: ARPT MGR, FCR ATCT, ZFW | | | | |
| CHANGES - REASONS: | | | | |

Figure D-3. FAA form 8260-15A Legacy Example

| 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. | | | | |
| AIRPORT ID | CITY | STATE | AMDT NO | ACTUAL EFFECTIVE DATE |
| YYY | LASKY | WY | ORIG | |
| | | | | CANCELLATION <input type="checkbox"/> |
| TAKEOFF MINIMUMS: RWY 16, 34: NA - OBSTACLES | | | | |
| TEXTUAL DEPARTURE PROCEDURES: RWY 18, 36: USE GOODHILL DEPARTURE | | | | |
| VISUAL CLIMB OVER AIRPORT: | | | | |
| TAKEOFF OBSTACLE NOTES: | | | | |
| CONTROLLING OBSTACLES: | | | | |
| REMARKS: | | | | |
| FLIGHT INSPECTED BY | | OFFICE | DATE | |
| DEVELOPED BY | | OFFICE | DATE | |
| APPROVED BY | | OFFICE | DATE | TITLE |
| REQUIRED EFFECTIVE DATE: ROUTINE | | | | |
| COORDINATED WITH: | | | | |
| A4A <input type="checkbox"/> ALPA <input checked="" type="checkbox"/> AOPA <input checked="" type="checkbox"/> APA <input checked="" type="checkbox"/> HAI <input type="checkbox"/> NBAA <input checked="" type="checkbox"/> OTHER: ARPT MGR, LSK ATCT, LSK APP CON, ZLC, ZOB | | | | |
| CHANGES - REASONS: | | | | |

Figure D-4. FAA form 8260-15A Example

| 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. | | | | |
| AIRPORT ID | CITY | STATE | AMDT NO | ACTUAL EFFECTIVE DATE |
| YYY | LASKY | WY | 4 | |
| CANCELLATION <input checked="" type="checkbox"/> | | | | |
| TAKEOFF MINIMUMS: | | | | |
| Procedure Canceled Effective <u>01/05/2023</u> | | | | |
| TEXTUAL DEPARTURE PROCEDURES: | | | | |
| VISUAL CLIMB OVER AIRPORT: | | | | |
| TAKEOFF OBSTACLE NOTES: | | | | |
| CONTROLLING OBSTACLES: | | | | |
| REMARKS: | | | | |
| FLIGHT INSPECTED BY | | OFFICE | DATE | |
| DEVELOPED BY | | OFFICE | DATE | |
| APPROVED BY | | OFFICE | DATE | TITLE |
| REQUIRED EFFECTIVE DATE: | | | | |
| ROUTINE | | | | |
| COORDINATED WITH: | | | | |
| A4A <input type="checkbox"/> ALPA <input checked="" type="checkbox"/> AOPA <input checked="" type="checkbox"/> APA <input checked="" type="checkbox"/> HAI <input type="checkbox"/> NBAA <input checked="" type="checkbox"/> OTHER: ARPT MGR, LSK ATCT, LSK APP CON, ZLC, ZOB | | | | |
| CHANGES - REASONS: | | | | |
| CONVENTIONAL ODP CHANGED TO RNAV – VOR MON REMOVED NAVAID | | | | |

Figure D-5. FAA Form 8260-15A Legacy Example

| 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. | | | | |
| AIRPORT ID | CITY | STATE | AMDT NO | ACTUAL EFFECTIVE DATE |
| PIT | PITTSBURGH | PA | 4 | |
| CANCELLATION <input type="checkbox"/> | | | | |
| TAKEOFF MINIMUMS: | | | | |
| RWY 10L, 10C, 10R, 28L, 28C, 28R, 14: STANDARD | | | | |
| RWY 32: 200- 1/2 OR STANDARD WITH MINIMUM CLIB OF 240 FT PER NM TO 1500, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 2100 FEET PRIOR TO DER. | | | | |
| TEXTUAL DEPARTURE PROCEDURES: | | | | |
| VISUAL CLIMB OVER AIRPORT: | | | | |
| TAKEOFF OBSTACLE NOTES: | | | | |
| RWY 10L: TREE 1367 FT FROM DER 733 FT LEFT OF CENTERLINE 59 FT AGL/1233 FT MSL. ROD ON OIL TOWER 4168 FT FROM DER, 910 FT LEFT OF CENTERLINE, 112 FT AGL/1262 FT MSL. TOWER 4175 FT FROM DER, 864 FT LEFT OF CENTERLINE, 112 FT AGL/1282 FT MSL. TREE 1463 FT FROM DER, 673 FT LEFT OF CENTERLINE, 38 FT AGL/1212 FT MSL. | | | | |
| RWY 10C: MULTIPLE TREES BEGINNING 3207 FT FROM DER, 461 FT LEFT OF CENTERLINE, UP TO 26 FT AGL/1263 FT MSL. | | | | |
| RWY 10R: MULTIPLE TREES BEGINNING 1082 FT FROM DER, 102 FT RIGHT OF CENTERLINE, UP TO 65 FT AGL/1265 FT MSL. OL ON MONITOR POLE 4590 FT FROM DER, 1124 FT LEFT OF CENTERLINE, 55 FT AGL/1241 FT MSL. POLE 4610 FT FROM DER, 1136 FT LEFT OF CENTERLINE, 55 FT AGL/1241 FT MSL. | | | | |
| RWY 28L: TREE 2272 FT FROM DER, 1109 FT LEFT OF CENTERLINE, 64 FT AGL/1272 FT MSL. TREE 39 FT FROM DER, 498 FT LEFT OF CENTERLINE 55 FT AGL/ 1144 FT MSL. | | | | |
| RWY 28R: TREE 1810 FT FROM DER, 912 FT RIGHT OF CENTERLINE, 34 FT AGL/1272 FT MSL. BUSH 73 FT FROM DER, 477 FT LEFT OF CENTERLINE, 12 FT AGL/1215 FT MSL. POLE 645 FT FROM DER, 663 FT LEFT OF CENTERLINE, 44 FT AGL/1159 FT MSL. | | | | |
| RWY 14: TREE 968 FT FROM DER, 516 FT RIGHT OF CENTERLINE, 44 FT AGL/1158 FT MSL. | | | | |
| RWY 32: ANT ON OL TOWER 1.1 NM FROM DER, 435 FT LEFT OF CENTERLINE, 105 FT AGL/1354 FT MSL. TOWER 6812 FT FROM DER, 497 FT LEFT OF CENTERLINE, 96 FT AGL/1342 FT MSL. LT ON POLE 454 FT FROM DER, 515 FT RIGHT OF CENTERLINE, 25 FT AGL/1173 FT MSL. MULTIPLE TREES BEGINNING 1717 FT FROM DER, 1108 FT RIGHT OF CENTERLINE, UP TO 61 FT AGL/1321 FT MSL. TREE 6074 FT FROM DER, 1272 FT RIGHT OF CENTERLINE, 61 FT AGL/1321 FT MSL. TREE 2577 FT FROM DER, 1108 FT RIGHT OF CENTERLINE, 74 FT AGL/1233 FT MSL. TREE 2480 FT FROM DER, 1118 FT RIGHT OF CENTERLINE, 333 FT AGL/1212 FT MSL. | | | | |
| CONTROLLING OBSTACLES: | | | | |
| RWY 32: 1354 FT MSL TOWER 403032.06N/0801435.23W | | | | |
| REMARKS: | | | | |
| FLIGHT INSPECTED BY | | OFFICE | DATE | |
| DEVELOPED BY | | OFFICE | DATE | |
| APPROVED BY | | OFFICE | DATE | TITLE |
| REQUIRED EFFECTIVE DATE: | | | | |
| ROUTINE | | | | |
| COORDINATED WITH: | | | | |
| A4A <input checked="" type="checkbox"/> ALPA <input checked="" type="checkbox"/> AOPA <input checked="" type="checkbox"/> APA <input checked="" type="checkbox"/> HAI <input type="checkbox"/> NBAA <input checked="" type="checkbox"/> OTHER: ARPT MGR, PIT APP CON, ZOB | | | | |
| CHANGES - REASONS: | | | | |
| RWY 32: ADDED CLIMB GRADIENT AND CEILING/VISIBILITY - NEW CONTROLLING OBSTACLE REQUIRED A CLIMB GRADIENT. | | | | |

Section 2. Instructions for Completing FAA Form 8260-15B, Graphic Departure Procedure (DP) (non-RNAV DP)

1. **General.** Refer to the paragraph 2 for direction when filling out FAA Form 8260-15Bs for non-RNAV DPs.
2. **Complete FAA Form 8260-15B.** Enter all applicable information. When entering a date use the following format: MM/DD/YYYY.

a. Title Line. The title line consists of the six following elements and will be filled in as noted.

(1) DP Name. Enter name of DP. For example, the CATHEDRAL SEVEN DEPARTURE is entered as CATHEDRAL. The procedure name derived from the title line must be included in all correspondence and documentation.

(2) Number. Enter DP number (spelled out); e.g., EIGHT.

(3) DP Computer Code. Enter computer identification code as coordinated with by ATC (see chapter 3).

(4) Superseded Number. DP number (spelled out) superseded by this procedure. Enter “None” for a new procedure.

(5) Dated. Date of superseded procedure.

(6) Actual Effective Date. Leave blank. The effective date will normally be added by Aeronautical Information Services. Enter an effective date only when a specific effective date is required; e.g., MV rotation. If the procedure is a “Special,” the Flight Procedure and Airspace Group’s designated representative will enter the effective date.

b. Type. Mark all boxes that apply. The choices are “Obstacle,” “SID,” “RNAV,” “COPTER,” and “SPECIAL.” Attach an up-to-date, clear graphic depiction of the procedure. Do Not include a textual description of transitions or departure route text.

c. DP Route Description. Provide the initial climb out instructions for each runway and a textual description of the departure route(s) to the DP termination fix. Include only information pertinent to the DP. Where the initial climb out instructions from multiple runways join and share a common route/instructions prior to the DP termination fix, end each instruction with “..., thence...” followed by a paragraph containing the common information (see figure D-6). If the DP route can be clearly understood from a graphic depiction, a complete textual description is not necessary. Simply state, “...then on depicted route...” or “...on depicted route...” as applicable. Define crossing altitudes at fixes as follows (see paragraph 2-1-3.e. for VCOA documentation):

(1) Document crossing altitude restrictions in plain text; e.g., “CROSS GRM VORTAC AT OR ABOVE (ALTITUDE);” “CROSS BRADY AT OR BELOW (ALTITUDE);” “CROSS

SHEMP AT OR ABOVE (ALTITUDE), AT OR BELOW (ALTITUDE);” “CROSS EDDIE AT (ALTITUDE).”

(2) Altitude restrictions requested by ATC (not authorized for ODPs).

(a) See Order 8260.3, and/or other 8260-series directives, as applicable, for the criteria to use when establishing fix crossing altitude restrictions requested by ATC.

(b) See paragraph 2-1-5.h.(2) for altitude charting constraints.

d. Transition Routes. (Not Authorized for ODPs.)

(1) Transition Name. Name each transition according to the name of the fix at the transition termination point entered in appendix D, section 2, paragraph 2.d.(4) Do not include the word “Transition.”

(2) Transition Computer Codes. Enter computer code as coordinated with ATC (see chapter 3).

(3) From FIX/NAVAID. Fix/NAVAID where the basic DP ends; e.g., DANNY INT, BICKR.

(4) To FIX/NAVAID. En route fix/NAVAID where each transition ends; e.g., DANNY, BICKR. If a transition has multiple segments, enter one line for each segment.

(5) Course. Specify the course for each transition segment. Enter the actual magnetic course to the hundredth of a degree (see Order 8260.19, chapter 8). When documenting the course between facilities, provide this information for both facilities.

Example:

076.56 & 080.47 (TWN R-077 & WSN R-260)

Note: Aeronautical Information Services will round for publication.

(6) Distance. Specify the distance for each transition segment. Enter the distance to the hundredth of a mile (see Order 8260.19, chapter 8). When documenting the course/distance between facilities, provide this information for both facilities.

Example:

41.61

Note: Aeronautical Information Services will round for publication.

(7) MEA. Enter MEA along transition route (see paragraph 3-1-1.j.(2)(a) for MEA guidance).

(8) MOCA. Enter MOCA along transition route (see paragraph 3-1-1.j.(2)(b) for MOCA guidance).

(9) Crossing altitudes/fixes. When a SID Transition(s) must accommodate an ATC required altitude at a specified fix, only document the ATC altitude; e.g., "BECKY AT/ABOVE 9000." MEA and MOCA (when applicable) must be charted. The ATC altitude must not be lower than the MEA.

e. PBN Requirement Notes. List all restrictions for navigation performance to fly the procedure. Document PBN in accordance with paragraph 2-1-5.i. on FAA Form 8260-15B.

f. Equipment Requirement Notes. List all restrictions for navigation performance to fly the procedure. Document in accordance with paragraph 2-1-5.j. on FAA Form 8260-15B.

g. Procedural Data Notes. List any procedural data information that is to appear in note form on the graphic depiction; e.g., turbojet only, etc. See paragraphs 2-1-5.h. and 2-1-9.a.(2), for specific information that must be charted and entered in this section. See Order 8260.19 for a chart note that is required if the SID/Graphic ODP is a Special procedure (see appendix F for helicopters).

h. Takeoff Minimums.

(1) Takeoff Minimums. List the runway(s) that are not authorized for IFR departures. If no design options are feasible, or if another reason(s) precludes DP design (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 9, 31: STANDARD.

Followed by:

(3) List the runway(s) that have any deviations from standard minimums and/or restrictions (see paragraph 2-1-3. as applicable).

i. Takeoff Obstacle Notes. Enter detailed takeoff obstacle notes only when the procedure is designated as an ODP (see paragraph 2-1-3.). For SIDs, do not enter detailed obstacle notes

unless an ODP has been established at the same airport that contain “Takeoff Obstacle Notes,” in this case enter: “See Form 8260-15A, Takeoff Minimums and Obstacle Departure Procedures (ODP)”, this note is for the charting agent to chart the T symbol and not for the procedure specialist.

(1) An AAO must not be identified/published as a “takeoff obstacle” because pilots are not familiar with the AAO concept. However, publishing a ceiling and visibility will allow for those situations where the CG cannot be achieved and still afford the pilot the opportunity to visually acquire and avoid any obstruction that could have been built without notice to the FAA.

(2) Legacy; the note must include the runway affected and inform the pilot of the obstacle(s) type and location relative to the DER/extended RCL and height [AGL and 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 and when applicable on centerline or crossing centerline. Phrases such as “multiple antennas, numerous trees, etc.” are acceptable. Also, when identifying these obstacles, be as descriptive as reasonably possible so as to provide the pilot a clear understanding of what to prepare and/or look for; e.g., instead of just saying “power poles,” it would be more helpful to use the descriptor of “power lines” in some instances. Another example would be instead of just saying “terrain,” if applicable; use of “ridgeline” or “bluff” would provide a clearer picture. Specify distances 1 NM or greater to the nearest whole and tenth of a NM (e.g., 2.1 NM from DER). Specify distances less than 1 NM in feet (e.g., 1280 FT from DER).

Legacy; Examples:

RWY 35: TREES 1280 FT FROM DER, 120 FT LEFT OF CENTERLINE, 50 FT AGL/1527 FT MSL.

RWY 35: BUILDING 2.1 NM FROM DER, 160 FT LEFT OF CENTERLINE, 350 FT AGL/1927 FT MSL.

RWY 17: MULTIPLE BUILDINGS 500 FT FROM DER 350 FT RIGHT OF CENTERLINE, 50 FT AGL/1107 FT MSL. ANTENNA 6000 FT FROM DER, 1235 FT LEFT OF CENTERLINE, 200 FT AGL/1257 FT MSL.

RWY 27: MULTIPLE TREES AND ANTENNAS BEGINNING 500 FT FROM DER, 350 FT RIGHT OF CENTERLINE, UP TO 110 FT AGL/1307 FT MSL.

RWY 17: VEHICLES ON ROAD 660 FT FROM DER, CROSSING EXTENDED RUNWAY CENTERLINE, 18 FT AGL/962 FT MSL.

H2/09: MULTIPLE TREES AND ANTENNAS BEGINNING 500 FT FROM HDRP, 350 FT RIGHT OF DP COURSE, UP TO 110 FT AGL/1307 FT MSL.

(3) Charting agents must publish these obstacle notes.

j. Controlling Obstacles. For all DPs, the controlling obstacle is that obstacle which, having penetrated the 40:1 OCS, causes the most adverse CG, CGTA, climb-to altitude, ceiling, and visibility, and/or DER crossing height (Legacy: do not apply) to be published.

(1) Document the controlling obstacle(s) that penetrate the 40:1 OCS within/outside the ICA. When there is more than one controlling obstacle to be documented, following the coordinates, include what entity it applies too; i.e., “(CEILING),” “(VISIBILITY),” “(CLIMB GRADIENT),” “(CLIMB GRADIENT TERMINATION ALTITUDE),” “(CLIMB-TO ALTITUDE),” OR [DER CROSSING HEIGHT (Legacy: do not apply)].” On FAA Form 8260-15A, do not list Controlling Obstacles for the runway(s) served by a graphic default ODP as described in appendix D, section 2.

(2) 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: 2049 FT MSL ANTENNA 341548.01N/0862101.05W.”

(3) Document the obstacle(s) that mandated design of a specific graphic DP route. These obstacles are not considered the “controlling obstacles” because they are not a factor to the specified route being flown. Do not chart this information on the procedure. Document these obstacles as follows (see appendix D, section 1, paragraph 2.i.(4) for VCOA):

“OBSTACLES MANDATING DP ROUTE DEVELOPMENT: RWY 36: 2049 FT MSL ANTENNA 341658.01N/0863108.05W.”

k. MSA. Enter the MSA information as defined in paragraph 3-1-2 as appropriate.

l. 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).

m. Additional Flight Data.

(1) List any additional charting instructions, items essential to clarify charting or information a specialist has determined needs charting as other than a note.

(2) 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 PATTERN AT ICT VORTAC, HOLD NE, RT, 222.03 INBOUND (Include Leg Length for RNAV or DME Holding, when applicable and speed, if other than standard). Ensure that the accompanying FAA Form 8260-2 contains the appropriate documentation for holding patterns supporting the DP.

(3) Document top altitudes as follows (paragraph 2-1-5.h.(2)(e) applies):

(a) For a single airport, specify the “Top Altitude (s)” specific to a given runway(s) or transition(s), as applicable.

Examples:

CHART: TOP ALTITUDE: 16000,

or

CHART: TOP ALTITUDE RWY 8/25/34L/34R/35L/35R: 16000; RWY 16L/16R/17L/17R: 12000,

or,

CHART: TOP ALTITUDE: STEVE AND DANNO TRANSITIONS: FL230; CHNHO AND KONO H TRANSITIONS: FL180

or,

CHART: TOP ALTITUDE: ASSIGNED BY ATC.

(b) For multiple airports, in addition to the single airport documentation above, include the airport ID and/or specific runways when “Top Altitudes” differ between airports and/or specific runways.

Examples:

KABC - CHART: TOP ALTITUDE: 16000

KCDE - CHART: TOP ALTITUDE: RWY 8/25/34L/34R/35L/35R: 16000; RWY 16L/16R/17L/17R: 12000

KFGH - CHART: TOP ALTITUDE: 12000

(c) If all airports share a common “Top Altitude,” then document as such:

Example:

All Airports - CHART: TOP ALTITUDE: 12000

(d) For cases where there will be a need for a different Top Altitude, for example one for jet aircraft and another for turboprop aircraft.

Example:

CHART: TOP ALTITUDE: (JETS) 7000/(TURBOPROPS) 2000

(e) Two numeric Top Altitudes are allowed per procedure, a third top altitude “as assigned by ATC” is also allowed as follows (paragraph 2-1-5.h.(2)(e)3b and 2-1-5.h.(2)(e)3c apply):

Examples:

CHART: TOP ALTITUDE: (JETS) 7000/(TURBOPROPS) 2000/(PROPS) AS ASSIGNED BY ATC

or,

KABC - CHART: TOP ALTITUDE: 16000

KCDE - CHART: TOP ALTITUDE: RWY 8/25/34L/34R/35L/35R: 16000; RWY 16L/16R/17L/17R: 12000

KFGH - CHART: TOP ALTITUDE: AS ASSIGNED BY ATC

(4) Apply the following when documenting the airport MV of record.

(a) Do not document the NAVAID MV of record on FAA Form 8260-15B. NAVAID documentation can be found on FAA Form 8260-2s used to support the route.

(b) Document the airport MV of record for each airport the SID or Graphic DP serves.

Example: Single airport: Airport MV: FLL 5W/2015

Example: Multiple airports: Airport MV: FLL 5W/2015, OPF 7W/2020, MIA 6W/2020.

n. Airports Served. List the airport ID (see paragraph 2-1-1.j.), city, and two-letter state code served by the DP.

Note: An obstacle DP may only serve one airport.

o. Communications. Charting of the Departure Control frequency will occur automatically (without coordination). Other communication types will be depicted only when specifically requested. For additional frequencies requested by the Instrument Flight Procedure (IFP) Validation Team or specified on the worksheet, specify Chart ATIS, CLNC, DEL, etc.

p. Fixes and/or NAVAIDs. Enter only the fixes and/or NAVAIDs for which charting is requested but are not included in the textual description of the departure or entered in the transition route data.

q. Remarks.

(1) List information/data that is not to be charted; e.g., administrative data or notes for controller information (requested by ATC). However, if something does need to be charted, precede the text with the "Chart:".

(2) See Order 8260.19 for a chart note that is required if the SID/Graphic ODP is a Special procedure. General chart notes (not Takeoff Minimums or Departure Instructions Notes)

need to include instructions to the chart organization to place the note at the bottom of the entry. Use the following format: “Chart: Note at bottom of entry...”

(3) When the procedure is being processed as an abbreviated amendment [see paragraph 2-1-11.f.(4)], enter “Abbreviated Amendment.”

(4) When applying Order 8260.3, paragraph 13-3-3.a.(3)(f) document the ATC Facility Operating Procedures highest altitude of the airspace as the restriction used for the evaluation.

Example: “Based on facility SOP the highest airspace altitude restriction at (fix name) evaluated 10,000 ft. Do not chart.”

(5) Apply paragraph 2-1-1.i. to document the ICA criteria and the Order 8260.3 version.

r. Flight Inspected By. Enter the information as defined in paragraph 2-1-1.k., as appropriate.

s. Developed By. Enter the information as defined in paragraph 2-1-1.k., as appropriate.

t. Approved By. Enter the information as defined in paragraph 2-1-1.k., as appropriate.

u. Required Effective Date.

(1) Enter the effective date as noted in Order 8260.19 (latest edition), chapter 8. Optimally, submit as routine. En route submission cutoff dates apply to graphic DPs. Special procedures documented on FAA Form 8260-7s do not have an effective date. The FPAG’s designated representative is responsible for entering a date.

(2) If FAA Form 8260-15B represents a concurrent action, enter “CONCURRENT” followed by the necessary information; e.g., Airport ID (see paragraph 2-1-1.j.), IAP name and amendment number; airspace action, or other event.

v. Coordinated With. Specify the offices/organizations the procedure was coordinated. DP coordination must be identical with the approach procedure coordination as outlined in Order 8260.19 (latest edition), chapter 8.

w. Changes/Reasons. List changes and reasons relating to data entries.

Figure D-6. FAA Form 8260-15B Legacy Example

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u> GOODHILL | <u>NUMBER</u> ONE | <u>DP COMPUTER CODE</u> GH1.GH1 | <u>SUPERSEDED NUMBER</u> NONE | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|----------------------------|----------------------|------------------------------------|----------------------------------|--------------|------------------------------|

| | | | | | | |
|--------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <u>TYPE:</u> | <u>OBSTACLE</u> | <u>COPTER</u> | <u>SID</u> | <u>SPECIAL</u> | <u>RNAV</u> | |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

DP ROUTE DESCRIPTION:
TAKEOFF RWY 18: CLIMB HEADING 185.22 TO 7700, THEN CLIMBING LEFT TURN DIRECT MKM VOR/DME, THEN ON MKM R-028 TO LARST, THENCE...

CANCELLATION

TAKEOFF RWY 36: CLIMB HEADING 005.22 TO 7100, THEN CLIMBING RIGHT TURN TO INTERCEPT MKM R-028 TO LARST, THENCE...

VOCA ALL RUNWAYS: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS MKM VOR/DME NORTHEASTBOUND AT OR ABOVE 8100, THEN ON MKM R-028 TO LARST, THENCE...

... THEN ON DEPICTED ROUTE TO GHI VORTAC, CROSS GHI VORTAC AT OR ABOVE MEA/MCA FOR ROUTE OF FLIGHT.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| <u>TRANSITION NAME</u> | <u>TRANSITION COMPUTER CODE</u> | <u>FROM FIX/NAVAID</u> | <u>TO FIX/NAVAID</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>MEA</u> | <u>MOCA</u> | <u>CROSSING ALTITUDE/FIXES</u> |
|------------------------|-------------------------------------|----------------------------|--------------------------|---------------|-----------------|------------|-------------|------------------------------------|
|------------------------|-------------------------------------|----------------------------|--------------------------|---------------|-----------------|------------|-------------|------------------------------------|

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PBN REQUIREMENT NOTES:

EQUIPMENT REQUIREMENT NOTES:

PROCEDURAL DATA NOTES:

TAKEOFF MINIMUMS:
RWY 16, 34: NA - OBSTACLES
RWY 36: STANDARD
RWY 18: STANDARD WITH MINIMUM CLIMB OF 380 FT PER NM TO 7700 OR 1800-3 FOR VCOA

TAKEOFF OBSTACLES NOTES:

CONTROLLING OBSTACLES:
RWY 18: 7359 FEET MSL TREES 433303.44N/1104648.03W
RWY 18 (VOCA): 7751 FEET MSL TREES 433807.67N/1104133.89W
RWY 36: 6949 FEET MSL TOWER 433801.40N/1104220.06W

MSA:
MKM VOR/DME, 8700

Example: FAA Form 8260-15B (Use Current Version)

Page 1 of 2

| | | | | | |
|----------------------------|----------------------|------------------------------------|----------------------------------|--------------|------------------------------|
| <u>DP NAME</u> GOODHILL | <u>NUMBER</u> ONE | <u>DP COMPUTER CODE</u> GH1.GH1 | <u>SUPERSEDED NUMBER</u> NONE | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|----------------------------|----------------------|------------------------------------|----------------------------------|--------------|------------------------------|

LOST COMMUNICATIONS PROCEDURES:ADDITIONAL FLIGHT DATA:AIRPORTS SERVED:

| | | |
|-------------------|-------------|-------------------------|
| <u>AIRPORT ID</u> | <u>CITY</u> | <u>STATE</u> |
| XXX | LASKY | WY <input type="text"/> |

COMMUNICATIONS:FIXES AND/OR NAVAIDS:REMARKS:FLIGHT INSPECTED BYOFFICEDATEDEVELOPED BYOFFICEDATEAPPROVED BYOFFICEDATETITLEREQUIRED EFFECTIVE DATE

ROUTINE

COORDINATED WITH:A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ARPT MGR, LSK ATCT, ZLCCHANGES - REASONS:

Legacy; Figure D-7. FAA Form 8260-15B Example

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

| | | | | | |
|-------------------------|-----------------------|---|-----------------------------------|--------------|------------------------------|
| <u>DP NAME</u> MICKY | <u>NUMBER</u> FOUR | <u>DP COMPUTER CODE</u> MICKY4.MICKY | <u>SUPERSEDED NUMBER</u> THREE | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|-------------------------|-----------------------|---|-----------------------------------|--------------|------------------------------|

| | | | | | |
|--------------|---|---|---|--|---|
| <u>TYPE:</u> | <u>OBSTACLE</u> <input type="checkbox"/> | <u>COPTER</u> <input type="checkbox"/> | <u>SID</u> <input checked="" type="checkbox"/> | <u>SPECIAL</u> <input type="checkbox"/> | <u>RNAV</u> <input type="checkbox"/> |
|--------------|---|---|---|--|---|

DP ROUTE DESCRIPTION: CANCELLATION ☐

TAKEOFF RWY 31L/R: CLIMB ON HEADING 309.71 TO INTERCEPT GRM R-190 TO CROSS GRM VORTAC AT OR ABOVE 2000, THEN RIGHT TURN TO INTERCEPT GRM R-078 TO CROSS MICKY AT OR ABOVE 6000, THEN ON TRANSITION. MAINTAIN 9000, EXPECT FILED ALTITUDE AT MICKY.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| <u>TRANSITION NAME</u> | <u>TRANSITION COMPUTER CODE</u> | <u>FROM FIX/NAVAID</u> | <u>TO FIX/NAVAID</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>MEA</u> | <u>MOCA</u> | <u>CROSSING ALTITUDE/FIXES</u> |
|------------------------|-------------------------------------|----------------------------|--------------------------|--|-----------------|------------|-------------|------------------------------------|
| HOMINY | MICKY4.HMS | MICKY | TWN VORTAC | 072.94 (TWN R-072) | 10.89 | 3700 | 3800 | TWN AT/ABOVE 7000 |
| | | TWN VORTAC | HMS VORTAC | 097.22 & 098.54 (TWN R-097 & HMS R-279) | 68.47 | 8100 | 6900 | |
| LIMPET | MICKY4.LPT | MICKY | LPT VORTAC | 351.19 (LT R-171) | 70.98 | 6000 | 3200 | |
| WATSON | MICKY4.WSN | MICKY | TWN VORTAC | 071.64 (TWN R-072) | 10.00 | 3700 | 3500 | |
| | | TWN VORTAC | WSN VORTAC | 076.56 & 080.47 | 41.61 | 4200 | 3900 | |

PBN REQUIREMENT NOTES:

EQUIPMENT REQUIREMENT NOTES:

PROCEDURAL DATA NOTES:
CHART: NOTE: DO NOT FILE - TO BE ASSIGNED BY ATC.

TAKEOFF MINIMUMS:
RWY 13L, 13R, 18, 36: NA - NOISE ABATEMENT
RWY 31L: 300-1 3/4 OR STANDARD WITH MINIMUM CLIMB OF 310 FT PER NM TO 2000.
RWY 31R: 300-1 3/4 OR STANDARD WITH MINIMUM CLIMB OF 310 FT PER NM TO 2000 OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT.
TAKEOFF MUST OCCUR NO LATER THAN 2100 FEET PRIOR TO DER

TAKEOFF OBSTACLES NOTES:

CONTROLLING OBSTACLES:
RWY 31L: 1049 FEET MSL TOWER 325304.00N/0965428.00W
RWY 31R: 739 FEET MSL BUILDING 325245.67N/0965221.00W

Example: FAA Form 8260-15A (Use Current Version)

| <u>DP NAME</u> | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|----------------|---------------|-------------------------|--------------------------|--------------|------------------------------|
| MICKY | FOUR | MICKY4.MICKY | THREE | MM/DD/YYYY | |

MSA:

GRM VORTAC, 9000

LOST COMMUNICATIONS PROCEDURES:**ADDITIONAL FLIGHT DATA:**

CHART: TOP ALTITUDE: 9000

AIRPORTS SERVED:

| <u>AIRPORT ID</u> | <u>CITY</u> | <u>STATE</u> |
|-------------------|-------------|--|
| YYY | DALLAS | TX <div><div>-</div><div>+</div></div> |

COMMUNICATIONS:

CHART: ASOS

FIXES AND/OR NAVAIDS:

SCY VOR/DME

REMARKS:

DO NOT CHART MOCA: FROM MICKY TO TWN VORTAC, TWN VORTAC TO WSN VORTAC.

FLIGHT INSPECTED BYOFFICEDATE**DEVELOPED BY**OFFICEDATE**APPROVED BY**OFFICEDATETITLE**REQUIRED EFFECTIVE DATE**

CONCURRENT WITH AIRSPACE DOCKET 15-ASW-28

COORDINATED WITH:A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ARPT MGR, MET ATCT, REG ATCT, ZFW**CHANGES - REASONS:**

1. ADDED HMS TRANSITION - ATC REQUEST.
2. ADDED TOP ALTITUDE - ATC REQUEST.
3. UPDATED DEPARTURE ROUTE DESCRIPTION AND MOCA DATA TO CURRENT CRITERIA.

Figure D-8. FAA Form 8260-15B Example

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u> GOODHILL | <u>NUMBER</u> ONE | <u>DP COMPUTER CODE</u> GH1.GH1 | <u>SUPERSEDED NUMBER</u> NONE | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|----------------------------|----------------------|------------------------------------|----------------------------------|--------------|------------------------------|

TYPE: OBSTACLE COPTER SID SPECIAL RNAV

☐ ☐ ☐ ☐ ☐

CANCELLATION ☒

DP ROUTE DESCRIPTION:

Procedure Canceled Effective 01/05/2023

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| | | | | | | | | |
|------------------------|---------------------------------|------------------------|----------------------|---------------|-----------------|------------|-------------|--------------------------------|
| <u>TRANSITION NAME</u> | <u>TRANSITION COMPUTER CODE</u> | <u>FROM FIX/NAVAID</u> | <u>TO FIX/NAVAID</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>MEA</u> | <u>MOCA</u> | <u>CROSSING ALTITUDE/FIXES</u> |
|------------------------|---------------------------------|------------------------|----------------------|---------------|-----------------|------------|-------------|--------------------------------|

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☐ +

PBN REQUIREMENT NOTES:

EQUIPMENT REQUIREMENT NOTES:

PROCEDURAL DATA NOTES:

TAKEOFF MINIMUMS:

TAKEOFF OBSTACLES NOTES:

CONTROLLING OBSTACLES:

MSA:

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

AIRPORTS SERVED:

| | | |
|-------------------|-------------|--------------|
| <u>AIRPORT ID</u> | <u>CITY</u> | <u>STATE</u> |
|-------------------|-------------|--------------|

☐ -
☐ +

COMMUNICATIONS:

Example: FAA Form 8260-15B (Use Current Version)

| <u>DP NAME</u> | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|----------------|---------------|-------------------------|--------------------------|--------------|------------------------------|
| GOODHILL | ONE | GH1.GH1 | NONE | | |

FIXES AND/OR NAVAIDS:

REMARKS:

FLIGHT INSPECTED BY

OFFICE

DATE

DEVELOPED BY

OFFICE

DATE

APPROVED BY

OFFICE

DATE

TITLE

REQUIRED EFFECTIVE DATE

ROUTINE

COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☐ APA ☐ HAI ☐ NBAA ☐ OTHER:

CHANGES - REASONS:

CONVENTIONAL ODP CHANGED TO RNAV – VOR MON REMOVED NAVAID

Appendix E. FAA Form 8260-15B, Graphic Departure Procedures (RNAV)

Section 1. Instructions for Completing FAA Form 8260-15B (RNAV DPs)

1. General. Refer to the paragraph 2 for direction when filling out FAA Form 8260-15Bs for RNAV DPs.

2. Complete FAA Form 8260-15B. Enter all applicable information. When entering a date use the following format: MM/DD/YYYY.

a. Title Line. The title line consists of the following six elements and will be filled in as noted.

(1) **DP Name.** Enter name of DP. For example, the CATHEDRAL SEVEN DEPARTURE is entered as CATHEDRAL. The procedure name derived from the title line must be included in all correspondence and documentation.

(2) **Number.** Enter DP number (spelled out); e.g., EIGHT.

(3) **DP Computer Code.** Enter computer identification code coordinated with ATC (see chapter 3).

(4) **Superseded Number.** DP number (spelled out) superseded by this procedure. Enter “None” for a new procedure.

(5) **Dated.** Date of superseded procedure.

(6) **Actual Effective Date.** Leave blank. The effective date will normally be added by Aeronautical Information Services. Enter an effective date only when a specific effective date is required; e.g., MV rotation. If the procedure is a “Special,” the Flight Procedure and Airspace Group’s designated representative will enter the effective date.

b. Type. Check all boxes that apply. The choices are “Obstacle,” “SID,” “RNAV,” “Copter,” and “Special.” Attach an up-to-date, clear graphic depiction of the procedure. Do not include a textual description of transitions or departure route text.

c. DP Route Description. Provide the initial climb out instructions for each runway and a textual description of the departure route(s) to the DP termination fix. Include only information pertinent to the DP. Where the initial climb out instructions from multiple runways join and share a common route/instructions prior to the DP termination fix, end each instruction with “..., thence...” followed by a paragraph containing the common information (see figure D-2). If the DP route can be clearly understood from a graphic depiction, a complete textual description is not necessary. Simply state, “...then on depicted route...” or “...on depicted route...” as applicable. Define crossing altitudes at fixes as follows:

(1) Document crossing altitude restrictions in plain text; e.g., “CROSS GRM VORTAC AT OR ABOVE (altitude);” “CROSS BRADY AT OR BELOW (altitude);” “CROSS SHEMP AT OR ABOVE (altitude), AT OR BELOW (altitude);” “CROSS EDDIE AT (altitude).”

(2) Altitude restrictions requested by ATC (not authorized for ODPs).

(a) See Order 8260.3 and/or other 8260-series directives, as applicable, for the criteria to use when establishing fix crossing altitude restrictions requested by ATC.

(b) See paragraph 2-1-5.h.(2) for altitude charting constraints.

Note: Information in this section must match the corresponding information in the Altitude column of FAA Form 8260-15C.

(3) See table E-1 for specific wording and required information. Specify the turn direction as either “Left/Right” as follows:

(4) DF legs. For all course changes exceeding 15 degrees.

(5) CF and TF legs. For all course changes exceeding 90 degrees.

Note: If the DP route becomes a series of consecutive TF legs with turns less than or equal to 90 degrees, a complete textual description from that point is not necessary. Simply state, “...then on depicted route to (fix)...” or “...on depicted route to (fix)...” as applicable (see example, “TAKEOFF RWY 1” and figures E-1 thru E-3).

(6) Document all courses, headings, tracks, and distances to the nearest hundredth unit of measurement.

Note: Fix/NAVAID column entries will be published verbatim on the Aeronautical Information Services chart, with the exception of courses, headings, and tracks, which will be rounded by Aeronautical Information Services to the nearest whole degree.

(7) When using a VA, VI, or VM leg, specify the actual heading to be flown (e.g., do not use “climb on runway heading”). Ensure courses, tracks, headings, and distances entered on FAA Form 8260-15B match the equivalent true values and distances entered on FAA Form 8260-15C as appropriate.

(8) RNAV DPs must use the word “direct” in the departure route description when the design incorporates a DF leg. Do not use the word “direct” for other leg types.

Table E-1. Leg Type Wording and Required Information

| 8260-15C Leg Type | 8260-15B Wording | 8260-15B Required Information |
|------------------------------|-----------------------------|--|
| CF | "course" | course/distance/turn direction*** |
| DF | "direct" | turn direction*/distance** |
| FM | "track" | course |
| HM | "track" | course/distance/altitude/turn direction |
| TF | "track" | course/distance/turn direction*** |
| VA | "heading" | heading/altitude |
| VI | "heading" | heading |
| VM | "heading" | heading |

* Do not specify turn direction when a DF leg is used as the first leg of a DP. For subsequent legs, only specify turn direction for DF legs when amount of turn exceeds 15 degrees.

** Do not specify distance when part of a VA-DF leg combination.

*** Only specify turn direction for CF or TF legs when amount of turn exceeds 90 degrees.

Examples:

VI leg followed by CF leg – “TAKEOFF RWY 32R: CLIMB ON HEADING 317.66 TO INTERCEPT COURSE 041.20 TO LARRY.”

VA leg followed by DF leg – “TAKEOFF RWY 32R: CLIMB ON HEADING 317.66 TO 1000, THEN CLIMBING RIGHT TURN DIRECT LARRY.”

Although the first altitude of a VA/DF leg type sequence appears to be specified in the text instructions as a “mandatory” altitude, it must be documented on FAA Form 8260-15C as an “at or above” altitude to ensure all the various types of aircraft avionics equipment operate appropriately.

VA leg followed by VM leg – “TAKEOFF RWY 32R: CLIMB ON HEADING 317.66 TO 1500, FOR VECTORS TO LARRY.”

This leg type combination is used for “Radar Vectors to Join RNAV Routes” DPs where ATC wants the aircraft to climb on a specified heading to an altitude prior to initiating radar vectors. Following the vectoring sequence, ATC is expected to issue a clearance direct to the IDF.

CF leg - “TAKEOFF RWY 1: CLIMB ON COURSE 007.52 TO LARRY, THENCE...”

DF leg - “TAKEOFF RWY 14L: CLIMB DIRECT CURLY, THENCE...”

CF leg followed by TF legs (less than 90-degree course changes) – “TAKEOFF RWY 1: CLIMB ON COURSE 007.52 TO LARRY, THEN ON DEPICTED ROUTE TO SHEMP, THENCE...”

CF leg followed by DF leg – “TAKEOFF RWY 14L: CLIMB ON COURSE 137.64 TO CROSS CURLY AT OR ABOVE 1000, THEN CLIMBING LEFT TURN DIRECT SHEMP, THENCE...”

VM leg – “TAKEOFF RWY 35C: CLIMB ON HEADING 350.11 OR AS ASSIGNED BY ATC TO 3000, FOR VECTORS TO AIMEE, THENCE...”

FM leg – “...THEN ON TRACK 050.33, FOR VECTORS TO KAHNI.”

HM leg – SEE FIGURE E-7 AND FIGURE E-13.

For climb-in hold procedures, document the inbound course in MAG; the holding pattern leg length; the minimum holding altitude, and the direction of turns in the remarks. You’ll notice that a climb-in hold requires the fix to be a FO and that the holding pattern is also a FO. The leg type is an HM. Holding airspeed may also be restricted for containment based on the unique wind effect when holding at slow airspeeds. This requires the airspeed to be increased upon reaching the holding pattern altitude. If a specific holding airspeed is required, document on FAA Form 8260-15C.

d. Transition Routes (Not Authorized for ODPs).

(1) Transition name. Name each transition according to the name of the fix at the transition termination point entered in appendix D, section 1, paragraph 2.d(4). Do not include the word “TRANSITION.”

(2) Transition computer codes. Enter computer code as coordinated with ATC (see chapter 3).

(3) From FIX/NAVAID. Fix/NAVAID where each transition begins (normally, the en route fix where the DP ends); e.g., DANNY, BICKR.

(4) To FIX/NAVAID. En route fix/NAVAID where each transition ends; e.g., DANNY, BICKR. If a transition has multiple segments, enter one line for each segment.

(5) Course. Specify the course for each transition segment. Enter the actual magnetic course to the hundredth of a degree (see Order 8260.19, chapter 8). When documenting the course between facilities, provide this information for both facilities.

Examples:

DF leg – Not used for transition routing.

CF leg – Not used for transition routing.

TF leg – “TRACK 067.11” or “RIGHT TURN, TRACK 054.94”

Course – 076.56 & 080.47 (TWN R-077 & WSN R-260)

Note 1: The VA or VI leg, when used, will be used only on the first leg of a departure and as such, a VA/VI leg should not appear in the transition route.

Note 2: Aeronautical Information Services will round for publication.

(6) Distance. Specify the distance for each transition segment. Enter the distance to the hundredth of a mile (see Order 8260.19, chapter 8). When documenting the course/distance between facilities, provide this information for both facilities.

Example:

41.61

Note: Aeronautical Information Services will round for publication.

(7) MEA. Enter MEA along transition route (see paragraph 3-1-1.j.(2)(a) for MEA guidance).

(8) MOCA. Enter MOCA along transition route (see paragraph 3-1-1.j.(2)(b) for MOCA guidance).

(9) Crossing altitudes/fixes. When a SID Transition(s) must accommodate an ATC required altitude at a specified fix, only document the ATC altitude; e.g., “BECKY AT/ABOVE 9000.” MEA and MOCA (when applicable) must be charted. The ATC altitude must not be lower than the MEA.

e. PBN Requirement Notes. List all restrictions for navigation performance to fly the procedure. Document PBN in accordance with paragraph 2-1-5.i2-1-5.i on FAA Form 8260-15B.

f. Equipment Requirement Notes. List all restrictions for navigation performance to fly the procedure. Document in accordance with paragraph 2-1-5.j. on FAA Form 8260-15B.

g. Procedural Data Notes. List any procedural data information that is to appear in note form on the graphic depiction; e.g., turbojet only, etc. See paragraphs 2-1-5.h. and 2-1-9.a.(2), for specific information that must be charted and entered in this section. See Order 8260.19 for a chart note that is required if the SID/Graphic ODP is a Special procedure (see appendix F for helicopters).

h. Takeoff Minimums:

(1) List the runway(s) that are not authorized for IFR departures. If no design options are feasible, or if another reason(s) precludes DP design (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 9, 31: STANDARD.

Followed by:

(3) List the runway(s) that have any deviations from standard minimums and/or restrictions (see paragraph 2-1-3. and this section as applicable).

i. Takeoff Obstacle Notes. Enter detailed takeoff obstacle notes only when the procedure is designated as an ODP (see paragraph 2-1-3.). For SIDs, do not enter detailed obstacle notes unless an ODP has been established at the same airport that contain “Takeoff Obstacle Notes,” in this case enter: “See Form 8260-15A, Takeoff Minimums and Obstacle Departure Procedures (ODP)”, this note is for the charting agent to chart the T symbol and not for the procedure specialist.

(1) An AAO must not be identified/published as a “takeoff obstacle” because pilots are not familiar with the AAO concept. However, publishing a ceiling and visibility will allow for those situations where the CG cannot be achieved and still afford the pilot the opportunity to visually acquire and avoid any obstruction that could have been built without notice to the FAA.

(2) Legacy; the note must include the runway affected and inform the pilot of the obstacle(s) type and location relative to the DER/extended RCL and height [AGL and 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 and when applicable on centerline or crossing centerline. Phrases such as “multiple antennas, numerous trees, etc.” are acceptable. Specify distances 1 NM or greater to the nearest whole and tenth of a NM (e.g., 2.1 NM from DER). Also, when identifying these obstacles, be as descriptive as reasonably possible so as to provide the pilot a clear understanding of what to prepare and/or look for; e.g., instead of just saying “power poles,” it would be more helpful to use the descriptor of “power lines” in some

instances. Another example would be instead of just saying “terrain,” if applicable; use of “ridgeline” or “bluff” would provide a clearer picture. Specify distances less than 1 NM in feet (e.g., 1280 FT from DER).

Legacy; Examples:

RWY 35: TREES 1280 FT FROM DER, 120 FT LEFT OF CENTERLINE, 50 FT AGL/1527 FT MSL.

RWY 35: BUILDING 2.1 NM FROM DER, 160 FT LEFT OF CENTERLINE, 350 FT AGL/1927 FT MSL.

RWY 17: MULTIPLE BUILDINGS 500 FT FROM DER, 350 FT RIGHT OF CENTERLINE, 50 FT AGL/1107 FT MSL. ANTENNA 6000 FT FROM DER, 1235 FT LEFT OF CENTERLINE, 200 FT AGL/1257 FT MSL.

RWY 27: MULTIPLE TREES AND ANTENNAS BEGINNING 500 FT FROM DER, 350 FT RIGHT OF CENTERLINE, UP TO 110 FT AGL/1307 FT MSL.

RWY 17: VEHICLES ON ROAD 660 FT FROM DER, CROSSING EXTENDED RUNWAY CENTERLINE, 18 FT AGL/962 FT MSL.

(3) Charting agents must publish these obstacle notes.

j. Controlling Obstacles. For all DPs, the controlling obstacle is that obstacle which, having penetrated the 40:1 OCS causes the most adverse CG, CGTA, climb-to altitude, ceiling, and visibility, and/or DER crossing height to be published. [For VCOAs see appendix D, section 1, paragraph 2.i(4).]

(1) Document the controlling obstacle(s) that penetrate the 40:1 OCS within/outside the ICA. When there is more than one controlling obstacle to be documented, following the coordinates, include what entity it applies to; i.e., “(CEILING),” “(VISIBILITY),” “(CLIMB GRADIENT),” “(CLIMB GRADIENT TERMINATION ALTITUDE),” “(CLIMB-TO ALTITUDE),” or [DER CROSSING HEIGHT (Legacy: do not apply)].” On FAA Form 8260-15A, do not list controlling obstacles for the runway(s) served by a graphic default ODP as described in appendix D, section 2.

(2) Use the following format to list the runway affected, elevation and type of obstacle, the coordinates to the nearest 0.01 second, and if applicable, OCS height above DER elevation; e.g., “RWY 32: 2049 FT MSL ANTENNA 341548.01N/0862101.05W.”

(3) Document the obstacle(s) that mandated design of a specific RNAV ODP route. These obstacles are not considered the “controlling obstacles” because they are not a factor to the specified route being flown. Do not chart this information on the procedure. Document these obstacles as follows:

“OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 36: 2049 FT MSL ANTENNA 341658.01N/0863108.05W.”

k. MSA. Enter the MSA information as defined in paragraph 3-1-2 as appropriate.

l. 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).

m. Additional Flight Data.

(1) List any additional charting instructions, items essential to clarify charting or information a specialist has determined needs charting as other than a note.

(2) 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 PATTERN AT ICT VORTAC, HOLD NE, RT, 222.03 INBOUND (include Leg Length for RNAV or DME Holding, when applicable and speed, if other than standard). Ensure that the accompanying FAA Form 8260-2 contains the appropriate documentation for holding patterns supporting the DP.

(3) Document top altitudes as follows (paragraph 2-1-5.h.(2)(e) applies):

(a) For a single airport, specify the “Top Altitude (s)” specific to a given runway(s) or transition(s), as applicable.

Examples:

CHART: TOP ALTITUDE: 16000,

or

CHART: TOP ALTITUDE: RWY 8/25/34L/34R/35L/35R: 16000; RWY 16L/16R/17L/17R: 12000,

or

CHART: TOP ALTITUDE: STEVE AND DANNO TRANSITIONS: FL230; CHNHO AND KONO H TRANSITIONS: FL180,

or,

CHART: TOP ALTITUDE: ASSIGNED BY ATC.

(b) For multiple airports, in addition to the single airport documentation above, include the airport ID and/or specific runways when “Top Altitudes” differ between airports and/or specific runways.

Examples:

KABC - CHART: TOP ALTITUDE: 16000

KCDE - CHART: TOP ALTITUDE: RWY 8/25/34L/34R/35L/35R: 16000; RWY 16L/16R/17L/17R: 12000

KFGH - CHART: TOP ALTITUDE: 12000

If all airports share a common “Top Altitude,” then state as such:

All Airports - CHART: TOP ALTITUDE: 12000

(c) For cases where there will be a need for a different “Top Altitude,” one for jet aircraft and another for propeller driven aircraft.

Example:

CHART: TOP ALTITUDE: (JETS) 7000/(TURBOPROPS) 2000

(d) Two numeric Top Altitudes are allowed per procedure, a third top altitude “as assigned by ATC” is also allowed as follows (paragraph 2-1-5.h(2)(e)3.b and 2-1-5.h(2)(e)3.c apply):

Examples:

CHART: TOP ALTITUDE: (JETS) 7000/(TURBOPROPS) 2000/(PROPS) AS ASSIGNED BY ATC

or,

KABC - CHART: TOP ALTITUDE: 16000

KCDE - CHART: TOP ALTITUDE: RWY 8/25/34L/34R/35L/35R: 16000; RWY 16L/16R/17L/17R: 12000

KFGH - CHART: TOP ALTITUDE: AS ASSIGNED BY ATC

(4) Document the minimum crossing altitude at the IF on RNAV Radar DPs as follows:
CHART: MINIMUM CROSSING ALTITUDE AT (RNAV IF)-(Altitude).

(5) Enter one of the following for DME/DME assessment results:

(a) “DME/DME ASSESSMENT: SAT (RNP 1.0 OR 2.0 AS APPROPRIATE).” Indicates a successful assessment to the RNP value specified.

(b) “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.

(c) “DME/DME ASSESSMENT: UNSAT.” Indicates an unsuccessful assessment to RNP 2.0.

(d) “DME/DME Assessment: NOT CONDUCTED.”

Note 1: If the DME/DME assessment indicates “UNSAT” or “NOT CONDUCTED,” the PBN Requirements Sensor note “GPS ” must be entered in the PBN Requirement Notes.

Note 2: The DME/DME assessment process is covered in Order JO 7470.1, Distance Measuring Equipment (DME)/DME Infrastructure Evaluation for Area Navigation (RNAV) Routes and Procedures.

(6) Apply the following when documenting the airport MV of record.

(a) The departure airport MV of record applicable to any track/course used in a RNAV DP is the airport MV when a SID or Graphic DP serves a single airport.

(b) When an RNAV SID serves multiple airports, the airport MV for each departure airport the SID serves must be used for its initial heading or entire runway transition. A primary airport must be selected to document the magnetic tracks/courses from the beginning of the common route to the end of the SID. The primary airport will be identified by (P). Place the departure airport MV of record used to design the procedure in this section.

Example: Single airport: Airport MV: FLL 5W/2015

Example: Multiple airports: Airport MV: FLL 5W/2015, OPF 7W/2020, MIA (P) 6W/2020.

n. Airports Served. Except for departures that use Radar vectors to join RNAV routes, RNAV DPs must only serve one airport. List the airport ID (see paragraph 2-1-1.j.), city, and two-letter state code served by the DP.

o. Communications. Charting of the Departure Control Frequency will occur automatically (without communication). Other communication types will be depicted only when specifically requested. For additional frequencies requested by the IFP Validation Team or specified on the worksheet, specify Chart ATIS, CLNC DEL, etc.

p. Fixes and/or NAVAIDs. Enter only those fixes and/or NAVAIDs for which charting is requested but are not included in the textual description of the departure or entered in the transition route data.

q. Remarks.

(1) List information/data, which is not to be charted; e.g., administrative data or notes for controller information (requested by ATC). However, if something does need to be charted, precede the text with “Chart:”.

(2) See Order 8260.19 for a chart note that is required if the SID/Graphic ODP is a Special Instrument Procedure. General chart notes (not Takeoff Minimums or Departure

Instructions Notes) need to include instructions to the chart organization to place the note at the bottom of the entry. Use the following format: “Chart Note at bottom of entry...”

(3) When an AAUP has been established (see paragraph 2-1-5.m.), a chart note must be established as follows: “CHART: NOTE: SEE ADDITIONAL REQUIREMENTS ON AAUP.”

(4) When the procedure is being processed as an abbreviated amendment [see paragraph 2-1-11.a.(2)], enter “ABBREVIATED AMENDMENT.”

(5) When applying Order 8260.3, paragraph 13-3-3.a.(3)(f) document the ATC Facility Operating Procedures highest altitude of the airspace as the restriction used for the evaluation.

Example: “Based on facility SOP the highest airspace altitude restriction at (fix name) evaluated 10,000 ft. Do not chart.”

(6) Apply paragraph 2-1-1.i. to document the ICA criteria and the Order 8260.3 version.

r. Flight Inspected By. Enter the information as defined in paragraph 2-1-1.k., as appropriate.

s. Developed By. Enter the information as defined in paragraph 2-1-1.k., as appropriate.

t. Approved By. Enter the information as defined in paragraph 2-1-1.k., as appropriate.

u. Required Effective Date.

(1) Enter the effective date as noted in Order 8260.19 (latest edition), chapter 8. Optimally, submit as routine. En route submission cutoff dates apply to graphic DPs. Special procedures documented on FAA Form 8260-7s do not have an effective date. The FPAG’s representative is responsible for entering a date.

(2) If FAA Form 8260-15B represents a concurrent action, enter “CONCURRENT” followed by the necessary information; e.g., Airport ID (see paragraph 2-1-1.j.), IAP name and amendment number, airspace action, or other event.

v. Coordinated With. Specify the offices/organizations the procedure was coordinated. DP coordination must be identical with the approach procedure coordination as outlined in Order 8260.19 (latest edition), chapter 8.

w. Changes - Reasons. List changes and reasons relating to data entries.

Legacy; Figure E-1. FAA Form 8260-15B Example

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)

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.

DP NAME

SHEMP

NUMBER

ONE

DP COMPUTER CODE

SHEMP1.SHEMP

SUPERSEDED NUMBER

NONE

DATED

ACTUAL EFFECTIVE DATE

TYPE:

OBSTACLE

COPTER

SID

SPECIAL

RNAV

☐

☐

☒

☐

☒

CANCELLATION

☐

DP ROUTE DESCRIPTION:

TAKEOFF RWY 1: CLIMB ON COURSE 007.52 TO LARRY, THEN ON DEPICTED ROUTE TO SHEMP, THENCE...

TAKEOFF RWY 14L: CLIMB ON COURSE 137.64 TO CROSS CURLY AT OR ABOVE 1000, THEN LEFT CLIMBING TURN DIRECT SHEMP, THENCE...

TAKEOFF RWY 32R: CLIMB ON HEADING 317.66 TO 1000, THEN CLIMBING RIGHT TURN DIRECT LARRY, THEN ON DEPICTED ROUTE TO SHEMP, THENCE...

... ON TRANSITION. MAINTAIN 5000, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| TRANSITION NAME | TRANSITION COMPUTER CODE | FROM FIX/NAVAID | TO FIX/NAVAID | COURSE | DISTANCE | MEA | MOCA | CROSSING ALTITUDE/FIXES |
|-----------------|--------------------------|-----------------|--------------------------|---|----------------|--------------|--------------|-------------------------|
| FOGART | SHEMP1.LGH | SHEMP | FGH VORTAC | TRACK 067.11 | 87.24 | 5000 | 3700 | - + - |
| JENKO | SHEMP1.JKL | SHEMP | JKL VORTAC | TRACK 098.77 | 92.51 | 5000 | 4700 | - + - |
| LAYMAN | SHEMP1.LMN | SHEMP | LMN VORTAC | RIGHT TURN TRACK 154.94 | 47.23 | 5000 | 4100 | - + - |
| ROOSTER | SHEMP1.RST | SHEMP | LMN VORTAC RST VORTAC | RIGHT TURN TRACK 154.94 TRACK 098.38 | 47.23 39.79 | 5000 7000 | 4100 4400 | - + - |

PBN REQUIREMENT NOTES:

RNAV 1 - DME/DME/IRU OR GPS

EQUIPMENT REQUIREMENT NOTES:

RADAR REQUIRED

PROCEDURAL DATA NOTES:

TAKEOFF MINIMUMS:

RWY 14R, 19, 32L: NA - AIR TRAFFIC.

RWY 1, 32R: STANDARD.

RWY 14L: 500-2 1/2 OR STANDARD WITH MINIMUM CLIMB OF 330 FT PER NM TO 1200

TAKEOFF OBSTACLES NOTES:

RWY 1: OBSTRUCTION LIGHT 1022 FEET FROM DER, 672 FEET RIGHT OF CENTERLINE, 73 FEET AGL/543 FEET MSL

RWY 14L: BUILDING 1.98 NM FROM DER, 575 FEET RIGHT OF CENTERLINE, 478 FEET AGL/974 FEET MSL

RWY 32R: TREES 143 FEET LEFT OF DER, 21 FEET AGL/498 FEET MSL

Example: FAA Form 8260-15B (Use Current Version)

Page 1 of 2

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| <u>DP NAME</u> | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|----------------|---------------|-------------------------|--------------------------|--------------|------------------------------|
| SHEMP | ONE | SHEMP1.SHEMP | NONE | | |

CONTROLLING OBSTACLES:

RWY 1: 543 FEET MST OBSTRUCTION LIGHT 325141.44/N0965102.87W

RWY 14L: 974 FEET MSL BUILDING 324911.09N/0964838.62W

RWY 32R: 1049 FEET MSL TOWER 325216.19N/0985523.02W, 498 FEET MSL TREES 325125.20N/0985125.68W

MSA:

VVV, 4000

LOST COMMUNICATIONS PROCEDURES:**ADDITIONAL FLIGHT DATA:**

DME/DME ASSESSMENT: SAT

CHART: TOP ALTITUDE: 5000

AIRPORTS SERVED:AIRPORT ID

VVV

CITY

VICTORVECTORVILLE

STATE

TX

**COMMUNICATIONS:****FIXES AND/OR NAVAIDS:****REMARKS:**

DO NOT CHART MOCA: FROM SHEMP TO JKL VORTAC.

FLIGHT INSPECTED BYOFFICEDATE**DEVELOPED BY**OFFICEDATE**APPROVED BY**OFFICEDATETITLE**REQUIRED EFFECTIVE DATE**

ROUTINE

COORDINATED WITH:A4A ☒ ALPA ☐ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ARPT MGR, FCR ATCT, ZFW**CHANGES - REASONS:**

Legacy; Figure E-2. FAA Form 8260-15B Example

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u> SHEMP | <u>NUMBER</u> TWO | <u>DP COMPUTER CODE</u> SHEMP2.SHEMP | <u>SUPERSEDED NUMBER</u> ONE | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
| <u>TYPE:</u> <input type="checkbox"/> OBSTACLE <input type="checkbox"/> COPTER <input checked="" type="checkbox"/> SID <input type="checkbox"/> SPECIAL <input checked="" type="checkbox"/> RNAV | <u>CANCELLATION</u> <input type="checkbox"/> | | | | |

DP ROUTE DESCRIPTION:

TAKEOFF RWY 1: CLIMB ON COURSE 007.52 TO CROSS LARRY AT OR ABOVE 2000, THEN ON TRACK 038.92 TO CROSS MOEHH AT OR ABOVE 3000, THEN ON TRACK 091.64 TO CROSS SHEMP AT OR ABOVE 5000, AT OR BELOW 8000, THENCE...

TAKEOFF RWY 14L: CLIMB ON COURSE 137.64 TO CROSS CURLY AT OR ABOVE 1000, THEN CLIMBING LEFT TURN DIRECT SHEMP, THENCE...

TAKEOFF RWY 32R: CLIMB ON HEADING 317.66 TO 1000, THEN CLIMBING RIGHT TURN TO LARRY, THEN ON DEPICTED ROUTE TO SHEMP, THENCE...

... ON TRANSITION. MAINTAIN 8000, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| <u>TRANSITION NAME</u> | <u>TRANSITION COMPUTER CODE</u> | <u>FROM FIX/NAVAID</u> | <u>TO FIX/NAVAID</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>MEA</u> | <u>MOCA</u> | <u>CROSSING ALTITUDE/FIXES</u> |
|------------------------|-------------------------------------|----------------------------|--------------------------|------------------------|-----------------|------------|-------------|--------------------------------------|
| FOGART | SHEMP2.LGH | SHEMP | FGH VORTAC | TRACK 067.11 | 87.23 | 5000 | 3700 | - + - + - + - + |
| JENKO | SHEMP2.JKL | SHEMP | JKL VORTAC | TRACK 096.77 | 92.51 | 5000 | 4700 | |
| OPAKE | SHEMP2.OPQ | SHEMP | OPQ VORTAC | LEFT TURN TRACK 003.19 | 52.21 | 4000 | 3300 | |
| ROOSTER | SHEMP2.RST | SHEMP | RST VORTAC | TRACK 098.38 | 39.79 | 7000 | 4900 | |

PBN REQUIREMENT NOTES:
RNAV 1 - GPS

EQUIPMENT REQUIREMENT NOTES:

PROCEDURAL DATA NOTES:

TAKEOFF MINIMUMS:
RWY 14R, 19, 32L: NA - AIR TRAFFIC
RWY 1, 32R: STANDARD
RWY 14L: 500-2 1/2 OR STANDARD WITH MINIMUM CLIMB OF 330 FT PER NM TO 1200

TAKEOFF OBSTACLE NOTES:
SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP).

CONTROLLING OBSTACLES:
RWY 1: 543 FEET MSL OBSTRUCTION LIGHT 325141.44/N0965102.87W
RWY 14L: 974 FEET MSL BUILDING 324911.09N/0964838.62W
RWY 32R: 1049 FEET MSL TOWER 325216.19N/0985523.02W, 498 FEET MSL TREES 325125.20N/0985125.68W
Example: FAA Form 8260-15B (Use Current Version)

| <u>DP NAME</u> | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|----------------|---------------|-------------------------|--------------------------|--------------|------------------------------|
| SHEMP | TWO | SHEMP2.SHEMP | ONE | | |

MSA:

XXX, 5000

LOST COMMUNICATIONS PROCEDURES:**ADDITIONAL FLIGHT DATA:**

DME/DME ASSESSMENT: UNSAT

CHART SPEED ICON: MAXIMUM SPEED 230 KIAS AT MOEHH

CHART: TOP ALTITUDE: 8000

AIRPORTS SERVED:AIRPORT IDCITYSTATE

XXX

VICTORVECTORVILLE

TX

**COMMUNICATIONS:****FIXES AND/OR NAVAIDS:****REMARKS:**

DO NOT CHART MOCA: FROM SHEMP TO JKL VORTAC.

FLIGHT INSPECTED BYOFFICEDATE**DEVELOPED BY**OFFICEDATE**APPROVED BY**OFFICEDATETITLE**REQUIRED EFFECTIVE DATE**

ROUTINE

COORDINATED WITH:A4A ☒ ALPA ☐ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ARPT MGR, FCR ATCT, ZFW**CHANGES - REASONS:**

1. ADDED OPQ TRANSITION - ATC REQUEST

2. REMOVED LMN VOR/DME FROM RST TRANSITION - ATC REQUEST

3. RELOCATED MOEHH - ATC REQUEST

4. DELETED AUTHORIZATION TO USE DME/DME/IRU - ABILITY TO USE DME/DME/IRU NO LONGER AVAILABLE

5. DELETED NOTE: RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT - ABILITY TO USE DME/DME/IRU NO LONGER AVAILABLE

Legacy; Figure E-3. FAA Form 8260-15B Example

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u> ARKES | <u>NUMBER</u> ONE | <u>DP COMPUTER CODE</u> ARKES1.ARKES | <u>SUPERSEDED NUMBER</u> NONE | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|-------------------------|----------------------|---|----------------------------------|--------------|------------------------------|

| | | | | | | |
|--------------|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--|
| <u>TYPE:</u> | <u>OBSTACLE</u> | <u>COPTER</u> | <u>SID</u> | <u>SPECIAL</u> | <u>RNAV</u> | |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |

DP ROUTE DESCRIPTION:
 TAKEOFF RWY 9L: CLIMB ON HEADING 093.38 TO 520, THEN DIRECT JUMAR, THENCE...
 TAKEOFF RWY 9R: CLIMB ON HEADING 093.38 TO 520, THEN CLIMBING LEFT TURN DIRECT JUMAR, THENCE...
 TAKEOFF RWY 13: CLIMB ON HEADING 138.38 TO 520, THEN CLIMBING LEFT TURN DIRECT JUMAR, THENCE...
 TAKEOFF RWY 27L: CLIMB ON HEADING 273.39 TO 520, THEN CLIMBING RIGHT TURN DIRECT NOVAE, THENCE...
 TAKEOFF RWY 27R: CLIMB ON HEADING 273.38 TO 520, THEN DIRECT NOVAE, THENCE...
 TAKEOFF RWY 31: CLIMB ON HEADING 318.37 TO 520, THEN DIRECT NOVAE, THENCE...
 ... ON DEPICTED ROUTE TO ARKES. MAINTAIN 3000, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| <u>TRANSITION NAME</u> | <u>TRANSITION COMPUTER CODE</u> | <u>FROM FIX/NAVAID</u> | <u>TO FIX/NAVAID</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>MEA</u> | <u>MOCA</u> | <u>CROSSING ALTITUDE/FIXES</u> |
|------------------------|-------------------------------------|----------------------------|--------------------------|---------------|-----------------|------------|-------------|------------------------------------|
|------------------------|-------------------------------------|----------------------------|--------------------------|---------------|-----------------|------------|-------------|------------------------------------|

☐
☒

PBN REQUIREMENT NOTES:
 RNAV 1 - DME/DME/IRU OR GPS

EQUIPMENT REQUIREMENT NOTES:
 RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT

PROCEDURAL DATA NOTES:
 NOTE: TURBOJET AIRCRAFT ACCELERATE TO 250 KTS WITHIN 7NM OF DEPARTURE

TAKEOFF MINIMUMS:
 RWY 9L, 9R: STANDARD
 RWY 13, 27L, 27R, 31: STANDARD WITH CLIMB OF 500 FT PER NM TO 520

TAKEOFF OBSTACLES NOTES:
 SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP).

CONTROLLING OBSTACLES:
 RWY 9L: 362 FEET MSL STACKS 260509.00N/0800730.00W
 RWY 13: 1049 FEET MSL TOWER 255935.28N/0801026.00W
 RWY 27L: 1049 FEET MSL TOWER 255935.28N/0801026.00W
 RWY 27R: 1049 FEET MSL TOWER 255935.28N/0801026.00W

MSA:
 FLL, 3000

LOST COMMUNICATIONS PROCEDURES:
 Example: FAA Form 8260-15B (Use Current Version)

| <u>DP NAME</u> | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|----------------|---------------|-------------------------|--------------------------|--------------|------------------------------|
| ARKES | ONE | ARKES1.ARKES | NONE | | |

ADDITIONAL FLIGHT DATA:
DME/DME/IRU ASSESSMENT: SAT (RNP 2.0)
CHART: TOP ALTITUDE: 3000

AIRPORTS SERVED:

| <u>AIRPORT ID</u> | <u>CITY</u> | <u>STATE</u> |
|-------------------|-----------------|--|
| FLL | FORT LAUDERDALE | FL <input type="checkbox"/> - <input type="checkbox"/> + |

COMMUNICATIONS:

CHART: ATIS

FIXES AND/OR NAVAIDS:

REMARKS:

FLIGHT INSPECTED BY

OFFICE

DATE

DEVELOPED BY

OFFICE

DATE

APPROVED BY

OFFICE

DATE

TITLE

REQUIRED EFFECTIVE DATE

ROUTINE

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: MIA APP CON, ZMA

CHANGES - REASONS:

Figure E-4. FAA Form 8260-15B Example

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u> FLAVR | <u>NUMBER</u> ONE | <u>DP COMPUTER CODE</u> FLAVR1.FLAVR | <u>SUPERSEDED NUMBER</u> NONE | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|-------------------------|----------------------|---|----------------------------------|--------------|------------------------------|

| | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <u>TYPE:</u> | <u>OBSTACLE</u> | <u>COPTER</u> | <u>SID</u> | <u>SPECIAL</u> | <u>RNAV</u> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

CANCELLATION ☒

DP ROUTE DESCRIPTION:

Procedure Canceled Effective 01/05/2023

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| | | | | | | | | |
|------------------------|-------------------------------------|----------------------------|--------------------------|---------------|-----------------|------------|-------------|---|
| <u>TRANSITION NAME</u> | <u>TRANSITION COMPUTER CODE</u> | <u>FROM FIX/NAVAID</u> | <u>TO FIX/NAVAID</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>MEA</u> | <u>MOCA</u> | <u>CROSSING ALTITUDE/FIXES</u> |
| | | | | | | | | <div style="border: 1px solid black; padding: 2px; text-align: center;"> - + </div> |

PBN REQUIREMENT NOTES:

EQUIPMENT REQUIREMENT NOTES:

PROCEDURAL DATA NOTES:

TAKEOFF MINIMUMS:

TAKEOFF OBSTACLES NOTES:

CONTROLLING OBSTACLES:

MSA:

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

| | | | |
|-------------------------|-------------------|-------------|---|
| <u>AIRPORTS SERVED:</u> | <u>AIRPORT ID</u> | <u>CITY</u> | <u>STATE</u> |
| | | | <div style="border: 1px solid black; padding: 2px; text-align: center;"> - + </div> |

COMMUNICATIONS:

Example: FAA Form 8260-15B (Use Current Version)

| <u>DP NAME</u> | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|---|---------------|-------------------------|--------------------------|--------------|------------------------------|
| FLAVR | ONE | FLAVR1.FLAVR | NONE | | |
| <u>FIXES AND/OR NAVAIDS:</u> | | | | | |
| <u>REMARKS:</u> | | | | | |
| <u>FLIGHT INSPECTED BY</u> | | | <u>OFFICE</u> | <u>DATE</u> | |
| <u>DEVELOPED BY</u> | | | <u>OFFICE</u> | <u>DATE</u> | |
| <u>APPROVED BY</u> | | | <u>OFFICE</u> | <u>DATE</u> | <u>TITLE</u> |
| <u>REQUIRED EFFECTIVE DATE</u> | | | | | |
| ROUTINE | | | | | |
| <u>COORDINATED WITH:</u> | | | | | |
| A4A <input type="checkbox"/> ALPA <input type="checkbox"/> AOPA <input type="checkbox"/> APA <input type="checkbox"/> HAI <input type="checkbox"/> NBAA <input type="checkbox"/> OTHER: | | | | | |
| <u>CHANGES - REASONS:</u> | | | | | |
| PROCEDURE CANCELED - ATC REQUEST | | | | | |

Legacy; Figure E-5. FAA Form 8260-15B Example

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u> STAYY | <u>NUMBER</u> TWO | <u>DP COMPUTER CODE</u> STAYY2.STAYY | <u>SUPERSEDED NUMBER</u> ONE | <u>DATED</u> 02/01/2023 | <u>ACTUAL EFFECTIVE DATE</u> |
|-------------------------|----------------------|---|---------------------------------|----------------------------|------------------------------|

| | | | | | | |
|--------------|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--|
| <u>TYPE:</u> | <u>OBSTACLE</u> | <u>COPTER</u> | <u>SID</u> | <u>SPECIAL</u> | <u>RNAV</u> | |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <u>CANCELLATION</u> <input type="checkbox"/> |

DP ROUTE DESCRIPTION:
TAKEOFF RWY 20R: CLIMB ON COURSE 195.91 TO CROSS BIKKL AT OR ABOVE 558, THEN LEFT TURN TO HEFAY, THEN RIGHT TURN TO CROSS PAPAU AT OR BELOW 5000 AND AT OR BELOW 220KTS, THEN LEFT TURN TO CROSS LRREN AT OR BELOW 5000, THEN LEFT TURN TO HTCHR, THEN ON TRACK 140.28 TO TANGLE, THEN ON TRACK 102.72 TO CROSS SHIRR AT OR ABOVE 7000, THEN ON TRACK 072.64 TO DANAH, THEN ON TRACK 048.34 TO CROSS STAYY AT OR ABOVE 9000, THEN ON TRANSITION. MAINTAIN 13000, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| <u>TRANSITION NAME</u> | <u>TRANSITION COMPUTER CODE</u> | <u>FROM FIX/NAVAID</u> | <u>TO FIX/NAVAID</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>MEA</u> | <u>MOCA</u> | <u>CROSSING ALTITUDE/FIXES</u> |
|------------------------|-------------------------------------|----------------------------|--------------------------|---------------|-----------------|------------|-------------|------------------------------------|
| AVRRY | STAYY2.AVRRY | STAYY | FNCHH | TRACK 079.58 | 12.24 | 9000 | 5800 | - |
| | | | TBERD | TRACK 083.61 | 12.51 | 10000 | 5300 | + |
| | | | PEELR | TRACK 079.68 | 33.13 | 15000 | 10800 | - |
| | | | MTBAL | TRACK 079.71 | 14.77 | 15000 | 8700 | + |
| | | | AVRRY | TRACK 057.20 | 25.24 | 15000 | 7500 | - |
| CENERY | STAYY2.CENERY | STAYY | WILD | TRACK 098.42 | 13.40 | 9000 | 5700 | + |
| | | | FLWRZ | TRACK 079.30 | 16.65 | 10000 | 7000 | - |
| | | | BLCKD | TRACK 078.71 | 23.94 | 15000 | 10800 | + |
| | | | CSTWY | TRACK 078.96 | 19.59 | 15000 | 10800 | - |
| | | | CENERY | TRACK 058.68 | 23.99 | 15000 | 5900 | + |
| OTAYY | STAYY2.OTAYY | STAYY | WILD | TRACK 098.42 | 13.40 | 9000 | 5700 | - |
| | | | WAGAV | TRACK 143.57 | 15.78 | 10000 | 4800 | + |
| | | | OTAYY | TRACK 169.02 | 35.92 | 15000 | 4300 | - |
| TCATE | STAYY2.TCATE | STAYY | WILD | TRACK 098.42 | 13.40 | 90000 | 5700 | + |
| | | | TCATE | TRACK 125.64 | 56.29 | 15000 | 8700 | - |

| <u>DP NAME</u> | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|----------------|---------------|-------------------------|--------------------------|--------------|------------------------------|
| STAYY | TWO | STAYY2.STAYY | ONE | 02/01/2023 | |

PBN REQUIREMENT NOTES:

RNP 1 - GPS, RF.

EQUIPMENT REQUIREMENT NOTES:**PROCEDURAL DATA NOTES:**

NOTE: TURBOJET ONLY

NOTE: DO NOT FILE - TO BE ASSIGNED BY ATC.

TAKEOFF MINIMUMS:

RWY 2L, 2R, 20L: NA-ATC.

RWY 20R: STANDARD WITH A MINIMUM CLIMB OF 500 FT PER NM TO 600

TAKEOFF OBSTACLES NOTES:

SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)

CONTROLLING OBSTACLES:

RWY 20R: 919 FT MSL AAO 333627.20N/1175013.20W

MSA:

SNA, 15000

LOST COMMUNICATIONS PROCEDURES:**ADDITIONAL FLIGHT DATA:**

DME/DME ASSESSMENT: NOT CONDUCTED.

CHART: TOP ALTITUDE: 13000.

CHART: SPEED ICON MAXIMUM SPEED 220 KIAS AT PAPAU.

AIRPORTS SERVED:**AIRPORT ID**

SNA

CITY

SANTA ANA

STATE

CA

**COMMUNICATIONS:**

CHART: GND CON (EAST) (WEST)

FIXES AND/OR NAVAIDS:**REMARKS:**

1. ABBREVIATED AMENDMENT.

| <u>DP NAME</u> | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|--|---------------|-------------------------|--------------------------|--------------|------------------------------|
| STAYY | TWO | STAYY2.STAYY | ONE | 02/01/2023 | |
| <u>FLIGHT INSPECTED BY</u> | | | <u>OFFICE</u> | <u>DATE</u> | |
| <u>DEVELOPED BY</u> | | | <u>OFFICE</u> | <u>DATE</u> | |
| <u>APPROVED BY</u> | | | <u>OFFICE</u> | <u>DATE</u> | <u>TITLE</u> |
| <u>REQUIRED EFFECTIVE DATE</u> | | | | | |
| ROUTINE | | | | | |
| <u>COORDINATED WITH:</u> | | | | | |
| A4A <input checked="" type="checkbox"/> ALPA <input checked="" type="checkbox"/> AOPA <input checked="" type="checkbox"/> APA <input checked="" type="checkbox"/> HAI <input type="checkbox"/> NBAA <input type="checkbox"/> OTHER: ZLA, SOCAL APP CON, SNA ATCT, AMGR | | | | | |
| <u>CHANGES - REASONS:</u> | | | | | |
| 1. ADDED NOTE: DO NOT FILE - TO BE ASSIGNED BY ATC. - ATC REQUEST. | | | | | |

Legacy; Figure E-6. FAA Form 8260-15B Example

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u> FLAVR | <u>NUMBER</u> ONE | <u>DP COMPUTER CODE</u> FLAVR1.FLAVR | <u>SUPERSEDED NUMBER</u> NONE | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
| <u>TYPE:</u> <u>OBSTACLE</u> <u>COPTER</u> <u>SID</u> <u>SPECIAL</u> <u>RNAV</u> | | | | | |
| <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | | | | | |

CANCELLATION ☐

DP ROUTE DESCRIPTION:
TAKEOFF RWY 1, 14L, 32R: CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO CROSS WAYPT AT OR ABOVE 4000, THEN ON TRACK 075.33 TO FLAVR, THEN ON TRANSITION. MAINTAIN 5000, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| <u>TRANSITION NAME</u> | <u>TRANSITION COMPUTER CODE</u> | <u>FROM FIX/NAVAID</u> | <u>TO FIX/NAVAID</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>MEA</u> | <u>MOCA</u> | <u>CROSSING ALTITUDE/FIXES</u> |
|------------------------|---------------------------------|------------------------|----------------------|------------------------|-----------------|------------|-------------|--------------------------------------|
| FOGART | FLAVR1.FGH | FLAVR | FGH VORTAC | TRACK 065.11 | 84.74 | 5000 | 3700 | - + - + - + - + |
| JENKO | FLAVR1.JKL | FLAVR | JKL VORTAC | TRACK 098.06 | 88.90 | 5000 | 4700 | |
| OPAKE | FLAVR1.OPQ | FLAVR | OPQ VORTAC | LEFT TURN TRACK 333.67 | 55.23 | 4000 | 3300 | |
| ROOSTER | FLAVR1.RST | FLAVR | RST VORTAC | TRACK 129.92 | 72.85 | 7000 | 4900 | |

PBN REQUIREMENT NOTES:
RNAV 1 - DME/DME/IRU OR GPS

EQUIPMENT REQUIREMENT NOTES:
RADAR REQUIRED

PROCEDURAL DATA NOTES:

TAKEOFF MINIMUMS:
RWY 14R, 19, 32L: NA - AIR TRAFFIC.
RWY 1, 32R: STANDARD.
RWY 14L: 500-2 1/2 OR STANDARD WITH MINIMUM CLIMB OF 330 FT PER NM TO 1200

TAKEOFF OBSTACLES NOTES:
SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP).

CONTROLLING OBSTACLES:
RWY 1: 543 FEET MSL OBSTRUCTION LIGHT 325141.44/N0985102.87W
RWY 14L: 974 FEET MSL BUILDING, 324911.09N/0984838.62W
RWY 32R: 1049 FEET MSL TOWER, 325216.19N/0985523.02W, 498 FEET MSL TREES 325125.20N/0985125.68W

MSA:
XXX, 4000

LOST COMMUNICATIONS PROCEDURES:

Example: FAA Form 8260-15B (Use Current Edition)

| <u>DP NAME</u> | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|--|---------------|-------------------------|--------------------------|--------------|--|
| FLAVR | ONE | FLAVR1.FLAVR | NONE | | |
| <u>ADDITIONAL FLIGHT DATA:</u> DME/DME ASSESSMENT: SAT CHART: MINIMUM CROSSING ALTITUDE AT WAYPT- AT OR ABOVE 4000 CHART: TOP ALTITUDE: 5000 | | | | | |
| <u>AIRPORTS SERVED:</u> | | | | | |
| <u>AIRPORT ID</u> | | <u>CITY</u> | | | <u>STATE</u> |
| XXX | | VICTORVECTORVILLE | | | TX <div><div>-</div><div>+</div></div> |
| <u>COMMUNICATIONS:</u> | | | | | |
| <u>FIXES AND/OR NAVAIDS:</u> | | | | | |
| <u>REMARKS:</u> DO NOT CHART MOCA: FROM FLAVR TO JKL VORTAC | | | | | |
| <u>FLIGHT INSPECTED BY</u> | | | <u>OFFICE</u> | <u>DATE</u> | |
| <u>DEVELOPED BY</u> | | | <u>OFFICE</u> | <u>DATE</u> | |
| <u>APPROVED BY</u> | | | <u>OFFICE</u> | <u>DATE</u> | <u>TITLE</u> |
| <u>REQUIRED EFFECTIVE DATE</u> ROUTINE | | | | | |
| <u>COORDINATED WITH:</u> | | | | | |
| A4A <input checked="" type="checkbox"/> ALPA <input checked="" type="checkbox"/> AOPA <input checked="" type="checkbox"/> APA <input checked="" type="checkbox"/> HAI <input type="checkbox"/> NBAA <input checked="" type="checkbox"/> OTHER: ARPT MGR, FCR ATCT, ZFW | | | | | |
| <u>CHANGES - REASONS:</u> | | | | | |

Legacy; Figure E-7. FAA Form 8260-15B Example

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u> TAHOE | <u>NUMBER</u> ONE | <u>DP COMPUTER CODE</u> TAHOE1.TAHOE | <u>SUPERSEDED NUMBER</u> NONE | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
| <u>TYPE:</u> <u>OBSTACLE</u> <u>COPTER</u> <u>SID</u> <u>SPECIAL</u> <u>RNAV</u> | | | | | |
| <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | | | | | |
| <u>CANCELLATION</u> <input type="checkbox"/> | | | | | |

DP ROUTE DESCRIPTION:
TAKEOFF RWY 2: CLIMB HEADING 015.99 TO 6420, THEN CLIMBING LEFT TURN DIRECT PWWDR. THENCE...
TAKEOFF RWY 29: CLIMB HEADING 285.99 TO 6420, THEN CLIMBING RIGHT TURN DIRECT PWWDR. THENCE...
...ON DEPICTED ROUTE TO CROSS TAHOE AT OR ABOVE 11000 AND AT OR BELOW 250K, CONTINUE CLIMB IN HOLD TO 12000, THEN ON TRANSITION.
MAINTAIN 13000, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| <u>TRANSITION NAME</u> | <u>TRANSITION COMPUTER CODE</u> | <u>FROM FIX/NAVAID</u> | <u>TO FIX/NAVAID</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>MEA</u> | <u>MOCA</u> | <u>CROSSING ALTITUDE/FIXES</u> |
|------------------------|---------------------------------|------------------------|----------------------|---------------|-----------------|------------|-------------|--------------------------------|
| MUSTANG | TAHOE1.FMG | TAHOE | FMG VORTAC | TRACK 028.99 | 23.98 | 12000 | 10700 | - |
| SIGNA | TAHOE1.SIGNA | TAHOE | SIGNA | TRACK 229.99 | 17.99 | 12000 | 11400 | - |
| | | | | | | | | + |
| | | | | | | | | - |
| | | | | | | | | + |
| | | | | | | | | - |

PBN REQUIREMENT NOTES:
RNAV 1 - GPS

EQUIPMENT REQUIREMENT NOTES:

PROCEDURAL DATA NOTES:

TAKEOFF MINIMUMS:
RWYS 11, 20: NA - OBSTACLES.
RWY 2: STANDARD WITH MINIMUM CLIMB OF 500 FT/NM TO 6420 THEN MINIMUM CLIMB OF 425 FT/NM TO 11000.
RWY 29: STANDARD WITH MINIMUM CLIMB OF 500 FT/NM TO 10200.

TAKEOFF OBSTACLE NOTES:
RWY 2: TREES BEGINNING 2 FT FROM DER, 288 FT LEFT OF CENTERLINE, UP TO 60 FT AGL/5939 FT MSL. TREES BEGINNING 420 FT FROM DER, 312 FT RIGHT OF CENTERLINE. UP TO 60 FT AGL/5939 FT MSL.
RWY 29: TREES BEGINNING 679 FT FROM DER, 507 FT LEFT OF CENTERLINE. UP TO 60 FT AGL/5997 FT MSL. TREES BEGINNING 116 FT FROM DER, 412 FT RIGHT OF CENTERLINE. UP TO 60 FT AGL/5971 FT MSL.

CONTROLLING OBSTACLES:
RWY 2: 6919 FT MSL AAO 392252.05N/1200710.34W
RWY 29: 6870 FT MSL TREE 392109.18N/1201143.41W

MSA:
TRK, 12000

LOST COMMUNICATIONS PROCEDURES:

| <u>DP NAME</u> | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|----------------|---------------|-------------------------|--------------------------|--------------|------------------------------|
| TAHOE | ONE | TAHOE1.TAHOE | NONE | | |

ADDITIONAL FLIGHT DATA:

DME/DME ASSESSMENT: NOT CONDUCTED

CHART: V-200

CHART SPEED ICON: MAXIMUM SPEED 250 KIAS AT TAHOE

CHART: TOP ALTITUDE: 13000

CHART HOLDING PATTERN AT TAHOE: HOLD NE, RT, 136.00 INBOUND, 11 NM LEGS

AIRPORTS SERVED:AIRPORT IDCITYSTATE

TRK

TRUCKEE

CA

**COMMUNICATIONS:**

UNICOM (CTAF), OAKLAND CENTER, AWOS-3PT

FIXES AND/OR NAVAIDS:**REMARKS:**

TARGETS RUN DOES NOT ACCOUNT FOR ATD. PER TARGETS DISTRO PACKAGE, DTA IS 3.10 WHEN SEGMENT LENGTHS IS 3.55. TOTAL DTA PLUS ATD FOR SEGMENT BETWEEN PWWDR AND TAHOE IS 4.10.

FLIGHT INSPECTED BYOFFICEDATE**DEVELOPED BY**OFFICEDATE**APPROVED BY**OFFICEDATETITLE**REQUIRED EFFECTIVE DATE**

ROUTINE

COORDINATED WITH:A4A ☐ ALPA ☐ AOPA ☐ APA ☐ HAI ☐ NBAA ☐ OTHER:**CHANGES - REASONS:**

Section 2. Instructions for Completing FAA Form 8260-15C, Departure (Data Record)

1. General. More detailed instructions are contained in paragraph 2.

a. Enter a dash (e.g., “-”) in the FO/FB, Leg Type, TC (True Course), and Distance columns when they are intentionally left blank.

a. The departure routing from each authorized runway to the DP fix (i.e., the DP termination fix) is documented first, followed by the routing from the DP fix to each transition fix as appropriate.

2. Complete FAA Form 8260-15C. Enter all applicable information. When entering a date use the following format: MM/DD/YYYY.

a. Fix/NAVAID. Enter the name of the fix/NAVAID in one of the following formats: (five-letter pronounceable name; (NAVAID) three-letter facility ID and type (e.g., ABC VORTAC).

b. Lat/Long. Enter the latitude and longitude, separated by a “slant(/)” to the nearest hundredth of a second.

c. C (Chart). Enter a Y (yes) if a fix is to be charted. Enter an N (no) if a fix does not require charting. Any fix where a change in altitude, course, or speed, including WPs where turns or transitions begin and end, require charting.

d. FO/FB. Enter the FO (Fly-over) or FB (Fly-by) as appropriate to indicate desired use. FB is the normal designation. Determination is based on operational or obstacle requirements.

e. Leg type. Enter the two-letter leg-type; e.g., IF, TF, RF, etc.

f. TC. Enter the true course (TC) to the nearest hundredth of a degree. The charting agency will apply MV, if necessary, and round for publication.

g. Dist. Enter the distance to the nearest hundredth of a NM. The charting agency will round for publication.

h. Altitude. Enter the minimum, mandatory, or maximum altitude in 100-foot increments (or Flight Levels in 1000-foot increments) and label each altitude/flight level as “at/above,” “at,” or “at/below.” Enter “block altitudes” with a “B” between the altitude values; e.g., 5000B8000.

i. Speed. Enter the minimum, mandatory, or maximum airspeed(s) in KIAS. Optionally, the airspeed may be entered as ground speed (GS). Label airspeed restrictions as “at/above,” “at,” or “at/below,” as appropriate. Following the numerical value, add “K” for KIAS or “G” for ground speed. Enter restrictions only where necessary for procedural containment, or for traffic flow requirements.

j. Remarks. Enter any pertinent information that would clarify a data entry; e.g., airspeed restriction for turn radius. Additionally, such items as CG restrictions, displaced threshold information, transition computer code, Applicable RNP Values (e.g., RNP 0.30), etc., are also placed in this column.

k. Departure Routing to DP Fix (see examples).

(1) The initial departure routing represents the most complex portion of documenting the RNAV or RNP DP.

(2) The first three lines of FAA Form 8260-15C are typically the most problematic, largely due to the variables associated with permissible leg types and waypoint sequencing.

(3) The following line-by-line explanation used in conjunction with guidance in paragraph 3-1-6.b, outlines the departure sequence element (i.e., from AER to DP fix) beginning at the AER*, with each succeeding line representing a permissible option until reaching the DP fix. Fix/NAVAIDs, Lat/Long, “C” (chart), FO/FB, Leg Type, TC (True Course), and Distance columns are required entries except as noted.

(4) Altitude and Speed columns enter restrictions associated with the Fix/NAVAID column as appropriate.

***Note:** WP placement is computed from DER as outlined in Order 8260.58 (latest edition); AER is a required coding element used for course/heading and distance computations.

(5) For each authorized runway:

(a) First line of each element.

(b) In the Fix/NAVAID column, enter the AER. **Example:** “RW14L (AER).”

(c) In the Lat/Long column, enter the AER Lat/long. If the runway threshold is displaced, enter the displaced AER Lat/long and note the amount of displacement in Remarks column.

Example: “RW 14L (AER)*, 325117.19N/0965114.05W*, *DISPL THLD (1273 FT).”

(d) In the “C” column, enter “N.”

(e) Remaining columns leave blank.

Note: For procedures that are strictly Radar Vectors to RNAV, an AER entry is not necessary (i.e., the first entry will be an IF). For procedures that incorporate Radar Vectors to RNAV for one or more runways on the same chart that contains an RNAV route departure off other runways, the runway(s) that use Radar Vectors to RNAV will require an “AER” entry prior to defining the IF.

(6) Second line options.

(a) CF leg from AER to FB/FO: True Course and Distance columns enter true course/distance from AER to the next fix (see example SHEMP ONE, RW01).

(b) DF leg from AER to FB/FO: True Course column, leave blank. Distance column, enter distance from AER to the next fix (see example SHEMP TWO, RW01).

(c) VI to CF leg (see third line options for required CF entries): Fix/NAVAID column, leave blank. Lat/Long column, enter the computed Lat/long of the VI/CF intersect point. C columns leave blank. True Course column, enter the true heading to be flown as computed from AER to VI/CF intersect point. Distance column, enter distance from AER to VI/CF intersect point. Speed and Altitude columns: Leave blank.

(d) VA to DF leg (see third line options for required DF entries): Fix/NAVAID column, enter the climb-to MSL altitude. Lat/Long, C, and FO/FB columns, leave blank. True Course column, enter the true azimuth of the takeoff runway. Distance, Altitude, and Speed columns, leave blank (see example for SHEMP TWO, RW32R).

(7) Third line options. If required; third line required for VA combinations:

(a) DF leg (preceded by FO WP): True Course column, leave blank. Distance column, enter the distance between the plotted positions of fixes. Remarks column, specify turn direction as either “Left/Right Turn” when required (see example SHEMP ONE, RW14L).

(b) TF leg: True Course and Distance columns, enter the true course and distance between the plotted positions of fixes. Remarks Column, specify turn direction as described above only if course change exceeds 90 degrees.

(c) CF leg (VI/CF combination): True Course and Distance columns, enter the true course and distance from the VI/CF intersect point to the next fix (CF termination fix). Remarks column, specify turn direction as described above only if course change exceeds 90 degrees (see example SHEMP ONE, RW32R).

(d) DF leg (VA/DF combination): True Course and Distance columns leave blank. Remarks column, specify turn direction as either “Left/Right Turn” when required (see example SHEMP TWO, RW32R).

(8) Fourth and subsequent lines (DF or TF only). Same as appendix E, section 2, paragraphs 2.k.(7)(a) and 2.k.(7)(b) entries.

(9) The DP routing concludes with the DP fix data entered on the last line of each routing element. Repeat this process until all authorized runways have been entered.

I. Transition Routing (see examples). For each transition:

(1) First line of each element.

(a) Fix/NAVAID and Lat/Long columns: Enter the DP fix name and Lat/long.

- (b) "C" (chart) column: Enter "Y."
- (c) FO/FB column: Leave blank.
- (d) Leg Type column: Enter "IF."
- (e) True Course, Distance, Altitude, and Speed columns: Leave blank.
- (f) Remarks column: Enter the transition computer code.

(2) Second and subsequent lines (TF only). Same as departure routing element appendix E, section 2, paragraph 2.k.(7)(b) entry/entries. Enter the transition fix data on the last line of the transition routing element.

Figure E-8. FAA Form 8260-15C Example

| FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE DEPARTURE (DATA RECORD) | | | | | | | | | |
|--|-------------------------|--------|------------------|-------------------|--------|-----------------------|---------------|-------|--------------------------|
| DP NAME | | NUMBER | DP COMPUTER CODE | SUPERSEDED NUMBER | DATED | ACTUAL EFFECTIVE DATE | | | |
| SHEMP | | ONE | SHEMP1.SHEMP | NONE | | | | | |
| FIX/NAVAID | LAT/LONG | C | FO/FB | LEG TYPE | TC | DIST (NM) | ALTITUDE | SPEED | REMARKS |
| RWY01 (AER) | 325030.65N/0965118.52W | N | - | - | - | - | | | |
| LARRY | 325615.88N/0965038.98W | Y | FB | CF | 005.52 | 5.77 | | | |
| MOEHH | 330002.41N/0964701.80W | Y | FB | TF | 038.92 | 4.84 | | | |
| SHEMP | 3259.32.81N/0962728.24W | Y | FB | TF | 091.81 | 16.46 | | | |
| RWY14L (AER)* | 325117.19N/0965114.05W* | N | - | - | - | - | | | *DISPL THLD (1273 FT) |
| CURLY | 324935.48N/0964916.24W | Y | FO | CF | 135.64 | 2.37 | AT/ABOVE 1000 | | CG 330 FT PER NM TO 1200 |
| SHEMP | 259.32.81N/0962728.24W | Y | FB | DF | | 20.87 | | | LEFT TURN |
| RWY32R (AER) | 325031.35N/0965020.95W | N | - | - | - | - | | | |
| 1000 MSL | -- | - | - | VA | 315.66 | 3.64 | AT/ABOVE 1000 | | |
| LARRY | 325031.35N/0965020.95W | Y | FO | DF | - | - | | | RIGHT TURN |
| MOEHH | 330002.41N/0964701.80W | Y | FO | TF | 038.92 | 4.84 | | | |
| SHEMP | 3259.32.81N/0962728.24W | Y | FO | TF | 085.11 | 87.24 | | | |
| SHEMP | 3259.32.81N/0962728.24W | Y | - | IF | - | - | | | SHEMP1.JKL |
| JKL VORTAC | 333543.94N/0945243.79W | Y | FB | TF | 152.94 | 47.23 | | | |
| SHEMP | 3259.32.81N/0962728.24W | Y | - | IF | - | - | | | SHEMP1.JKL |
| JKL VORTAC | 324749.41N/0943828.97W | Y | FB | TF | 152.94 | 47.23 | | | |
| SHEMP | 324749.41N/0943828.97W | Y | - | IF | - | - | | | SHEMP1.LMN |

| <u>DP NAME</u> | | <u>NUMBER</u> | | <u>DP COMPUTER CODE</u> | | <u>SUPERSEDED NUMBER</u> | | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|-------------------|-------------------------|---------------|--------------|---------------------------|-----------|----------------------------|-----------------|--------------|------------------------------|
| SHEMP | | ONE | | SHEMP1.SHEMP | | NONE | | | |
| <u>FIX/NAVAID</u> | <u>LAT/LONG</u> | <u>C</u> | <u>EQ/EB</u> | <u>LEG</u> <u>TYPE</u> | <u>IC</u> | <u>DIST</u> <u>(NM)</u> | <u>ALTITUDE</u> | <u>SPEED</u> | <u>REMARKS</u> |
| LMN VORTAC | 321721.40N/0960207.48W | Y | FB | TF | 152.94 | 47.23 | | | |
| SHEMP | 3259.32.61N/0962728.24W | Y | - | IF | - | - | | | SHEMP1.RST |
| LMN VORTAC | 321721.40N/0960207.48W | Y | FB | TF | 152.94 | 47.23 | | | |
| RST VORTAC | 321246.96N/0951530.88W | Y | FB | TF | 096.38 | 39.79 | | | |



Figure E-9. FAA Form 8260-15C Example

| FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE DEPARTURE (DATA RECORD) | | | | | | | | | |
|--|-------------------------|------------------|-------------------|-------|-----------------------|--------------|---------------|---------------|---------------------------|
| DP NAME | NUMBER | DP COMPUTER CODE | SUPERSEDED NUMBER | DATED | ACTUAL EFFECTIVE DATE | | | | |
| SHEMP | TWO | SHEMP2.SHEMP | ONE | | | | | | |
| FIX/NAVAID | LAT/LONG | C | EO/EB | LEG | IC | DIST (NM) | ALTITUDE | SPEED | REMARKS |
| RWY01 (AER) | 325030.65N/0965118.52W | N | - | - | - | - | | | |
| LARRY | 325932.61N/0962728.24W | Y | FO | DF | - | - | AT/ABOVE 2000 | | |
| MOEHH | 330205.91N/0964502.64W | Y | FO | TF | 038.97 | 7.49 | AT/ABOVE 3000 | AT/BELOW 220K | |
| SHEMP | 325932.61N/0962728.24W | Y | FO | TF | 099.71 | 15.00 | 5000B8000 | | |
| RWY14L (AER) | 325117.19N/0965114.05W* | N | - | - | - | - | | | *DISPL THLD (12973 FT) |
| CURLY | 324905.38N/0964841.41W | Y | FB | DF | - | 3.07 | AT/ABOVE 1000 | | CG 300 FT PER MIN TO 1200 |
| SHEMP | 325932.61N/0962728.24W | Y | FO | TF | 059.62 | 20.69 | 5000B8000 | | |
| RWY32R (AER) | 325031.35N/0965020.95W | Y | - | - | - | - | | | |
| 1000 MSL | - | - | - | VA | 315.66 | - | AT/ABOVE 1000 | | |
| LARRY | 325932.61N/0962728.24W | Y | FO | DF | - | - | AT/ABOVE 2000 | | RIGHT TURN |
| MOEHH | 330205.91N/0964502.64W | Y | FO | TF | 038.8 | 7.49 | AT/ABOVE 3000 | AT/ABOVE 220K | |
| SHEMP | 325932.61N/0962728.24W | Y | FO | TF | 091.64 | 16.46 | 5000B8000 | | |
| SHEMP | 325932.61N/0962728.24W | Y | - | IF | - | - | | | SHEMP2.FHG |
| FGH VORTAC | 333543.94N/0945243.79W | Y | FB | TF | 065.11 | 87.24 | | | RIGHT TURN |
| SHEMP | 325932.61N/0962728.24W | Y | - | IF | - | - | | | SHEMP2.JKL |
| JKL VORTAC | 324749.41N/0943828.97W | Y | FB | TF | 096.77 | 92.51 | | | RIGHT TURN |

Example: FAA Form 8260-15C (Use Current Version)

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| <u>DP NAME</u> | | <u>NUMBER</u> | | <u>DP COMPUTER CODE</u> | | <u>SUPERSEDED NUMBER</u> | | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|-------------------|------------------------|---------------|--------------|---------------------------|-----------|----------------------------|-----------------|--------------|------------------------------|
| SHEMP | | TWO | | SHEMP2.SHEMP | | ONE | | | |
| <u>FIX/NAVAID</u> | <u>LAT/LONG</u> | <u>C</u> | <u>EO/FB</u> | <u>LEG</u> <u>TYPE</u> | <u>IC</u> | <u>DIST</u> <u>(NM)</u> | <u>ALTITUDE</u> | <u>SPEED</u> | <u>REMARKS</u> |
| SHEMP | 325932.61N/0962728.24W | Y | - | IF | - | - | | | SHEMP2.OPQ |
| OPQ VOR/DME | - | Y | FB | TF | 003.19 | 52.21 | | | LEFT TURN |
| SHEMP | 325932.61N/0962728.24W | Y | - | IF | - | - | | | SHEMP2.RST |
| RST VORTAC | 321246.96N/0951530.88W | Y | FB | TF | 127.19 | 76.63 | | | RIGHT TURN |



Figure E-10. FAA Form 8260-15C Example

| FLIGHT STANDARDS SERVICE DEPARTURE (DATA RECORD) | | | | | | | | | |
|---|------------------------|-------------------|-------|-----------------------|--------|--------------|--------------|-------|-------------------------|
| DP NAME | | | | | | | | | |
| ARKES | | | | | | | | | |
| NUMBER | DP COMPUTER CODE | SUPERSEDED NUMBER | DATED | ACTUAL EFFECTIVE DATE | | | | | |
| ONE | ARKES1.ARKES | NONE | | | | | | | |
| FIX/NAVAID | LAT/LONG | C | EQ/FB | LEG | TR | DIST (NM) | ALTITUDE | SPEED | REMARKS |
| RWY09L (AER)* | 260436.98N/0800953.20W | N | - | - | - | - | | | *DISPL THLD (577 FT) |
| 520 MSL | - | - | - | VA | 090.35 | - | AT/ABOVE 520 | | |
| JUMAR | 260431.29N/0795501.17W | Y | FB | DF | - | - | | | |
| HAPOR | 261243.07N/0795655.56W | Y | FB | TF | 348.15 | 8.25 | | | LEFT TURN |
| SECOR | 261427.18N/0801120.40W | Y | FB | TF | 277.66 | 13.08 | | | |
| ATONE | 262312.14N/0801223.68W | Y | FB | TF | 314.03 | 12.56 | | | |
| ARKES | 263437.73N/0802503.60W | Y | FB | TF | 343.91 | 11.86 | | | |
| RWY09R (AER)* | 260357.49N/0800933.63W | N | - | - | - | - | | | *DISPL THLD (320 FT) |
| 520 MSL | - | - | - | VA | 090.36 | - | AT/ABOVE 520 | | |
| JUMAR | 260431.29N/0795501.17W | Y | FB | DF | - | - | | | LEFT TURN |
| HAPOR | 261243.07N/0795655.56W | Y | FB | TF | 348.15 | 8.35 | | | LEFT TURN |
| SECOR | 261427.18N/0801120.40W | Y | FB | TF | 277.66 | 13.08 | | | |
| ATONE | 262312.14N/0801223.68W | Y | FB | TF | 314.03 | 12.56 | | | |
| ARKES | 263437.73N/0802503.60W | Y | FB | TF | 343.91 | 11.86 | | | |
| RWY13 (AER) | 260444.05N/0800937.40W | N | - | - | - | - | | | |
| 520 MSL | - | - | - | VA | 135.36 | - | AT/ABOVE 520 | | CG 500 FT PER NM TO 520 |
| JUMAR | 260431.29N/0795501.17W | Y | FB | DF | - | - | | | LEFT TURN |
| HAPOR | 261243.07N/0795655.56W | Y | FB | TF | 348.18 | 8.35 | | | LEFT TURN |
| SECOR | 261427.18N/0801120.40W | Y | FB | TF | 277.66 | 13.08 | | | |
| ATONE | 262312.14N/0801223.68W | Y | FB | TF | 314.03 | 12.56 | | | |

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| <u>DP NAME</u> | | | | | | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|-------------------|------------------------|----------|--------------|---------------------------|-----------|----------------------------|-------------------------|--------------------------|-------------------------|------------------------------|
| ARKES | | | | | | ONE | ARKES1.ARKES | NONE | | |
| <u>FIX/NAVAID</u> | <u>LAT/LONG</u> | <u>C</u> | <u>EQ/FB</u> | <u>LEG</u> <u>TYPE</u> | <u>TC</u> | <u>DIST</u> <u>(NM)</u> | <u>ALTITUDE</u> | <u>SPEED</u> | <u>REMARKS</u> | |
| ARKES | 283437.73N/0802503.60W | Y | FB | TF | 343.91 | 11.86 | | | | |
| RWY27L (AER)* | 280357.17N/0800840.84W | N | - | - | - | - | | | *DISPL THLD (577 FT) | |
| 520 MSL | - | - | - | VA | 270.39 | - | AT/ABOVE 50 | | CG 500 FT PER NM TO 520 | |
| NOVAE | 280438.90N/0801553.29W | | FB | DF | - | - | | | RIGHT TURN | |
| KRMIT | 281322.00N/0801816.69W | Y | FB | TF | 346.11 | 8.95 | | | | |
| ATONE | 282312.14N/0801223.68W | Y | FB | TF | 344.07 | 10.20 | | | | |
| ARKES | 283437.73N/0802503.60W | Y | FB | TF | 343.91 | 11.86 | | | | |
| RWY27R (AER)* | | N | - | - | - | - | | | *DISPL THLD (577 FT) | |
| 520 MSL | - | - | - | VA | 270.36 | - | AT/ABOVE 520 | | CG 500 FT PER NM TO 520 | |
| NOVAE | 283437.73N/0802503.60W | Y | FB | DF | - | - | | | | |
| KRMIT | 281322.00N/0801816.69W | Y | FB | TF | 346.11 | 8.95 | | | | |
| ATONE | 282312.14N/0801223.68W | Y | FB | TF | 344.07 | 10.20 | | | | |
| ARKES | 283437.73N/0802503.60W | Y | FB | TF | 344.91 | 11.86 | | | | |
| RWY3 (AER)* | | N | - | - | - | - | | | *DISPL THLD (577 FT) | |
| 520 MSL | - | - | - | VA | 315.37 | - | AT/ABOVE 520 | | CG 500 FT PER NM TO 520 | |
| NOVAE | 280438.90N/0801553.29W | Y | FB | DF | - | - | | | LEFT TURN | |
| KRMIT | 281322.00N/0801816.69W | Y | FB | TF | 346.11 | 8.95 | | | | |
| ATONE | 282312.14N/0801223.68W | Y | FB | TF | 344.07 | 10.20 | | | | |
| ARKES | 283437.73N/0802503.60W | Y | FB | TF | 343.91 | 11.86 | | | | |

Figure E-11. FAA Form 8260-15C Example

| FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE DEPARTURE (DATA RECORD) | | | | | | | | | |
|--|------------------------|---------------|--------------|---------------------------|-----------|----------------------------|-----------------|--------------|------------------------------|
| <u>DP NAME</u> | | <u>NUMBER</u> | | <u>DP COMPUTER CODE</u> | | <u>SUPERSEDED NUMBER</u> | | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
| FLAVR | | ONE | | FLAVR1.FLAVR | | NONE | | | |
| <u>FIX/NAVAID</u> | <u>LAT/LONG</u> | <u>C</u> | <u>EQ/FB</u> | <u>LEG</u> <u>TYPE</u> | <u>IC</u> | <u>DIST</u> <u>(NM)</u> | <u>ALTITUDE</u> | <u>SPEED</u> | <u>REMARKS</u> |
| WAYPT | 325534.27N/0964004.08W | Y | FB | IF | - | - | AT/ABOVE 4000 | | |
| FLAVR | 325756.89N/0962315.04W | Y | FB | TF | 073.3 | 14.77 | | | |
| FLAVR | 325756.89N/0962315.04W | Y | - | IF | - | - | | | FLAVR1.FGH |
| FGH VORTAC | 333543.94N/0945243.79W | Y | FB | TF | 085.11 | 84.74 | | | |
| FLAVR | 325756.89N/0962315.04W | Y | - | IF | - | - | | | |
| JKL VORTAC | 324749.41N/0943828.97W | Y | FB | TF | 098.05 | 88.80 | | | FLAVR1.JKL |
| FLAVR | 325756.89N/0962315.04W | Y | - | IF | - | - | | | FLAVR1.OPG |
| OPQ VOR/DME | 334641.06N/0965429.57W | Y | FB | TF | 333.87 | 55.23 | | | LEFT TURN |
| FLAVR | 325756.89N/0962315.04W | Y | - | IF | - | - | | | FLAVR1.RST |
| RST VORTAC | 312146.96N/0951530.88W | Y | FB | TF | 129.02 | 72.85 | | | |

Figure E-12. FAA Form 8260-15C Example

| FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE DEPARTURE (DATA RECORD) | | | | | | | | | |
|--|------------------------|------------------|-------------------|------------|-----------------------|--------------|---------------|---------------|----------------------------|
| DP NAME | NUMBER | DP COMPUTER CODE | SUPERSEDED NUMBER | DATED | ACTUAL EFFECTIVE DATE | | | | |
| STAYY | TWO | STAYY2.STAYY | ONE | 02/01/2023 | | | | | |
| FIX/NAVAID | LAT/LONG | C | EO/FB | LEG | IC | DIST (NM) | ALTITUDE | SPEED | REMARKS |
| RW20R (AER) | 334053.93N/1175154.21W | N | - | - | - | - | | | |
| BIKKL | 333909.48N/1175300.38W | Y | FB | CF | 207.91 | 1.97 | AT/ABOVE 556 | | CG 500 FT PER NM TO 600 |
| HEFAY | 333807.44N/1175317.61W | Y | FB | RF | - | 1.07 | | | 2.07 NM RADIUS CCW (CFCJQ) |
| PAPAU | 333709.19N/1175332.46W | Y | FB | RF | - | 1.00 | AT/ABOVE 5000 | AT/BELOW 220K | 2.08 NM RADIUS CW (CFDSG) |
| LRREN | 333501.79N/1175400.22W | Y | FB | RF | - | 2.18 | AT/BELOW 5000 | | 4.03 NM RADIUS CCW (CFFBZ) |
| HTCHR | 333330.30N/1175327.97W | Y | FB | RF | - | 1.60 | | | 4.06 NM RADIUS CCW (CFGBM) |
| TANGL | 333027.00N/1175133.00W | Y | FB | TF | 152.28 | 3.44 | | | |
| SHIRR | 332830.00N/1174630.00W | Y | FB | TF | 114.72 | 4.65 | AT/ABOVE 7000 | | |
| DANAH | 332851.62N/1174154.15W | Y | FB | TF | 084.64 | 3.86 | | | |
| STAYY | 333459.41N/1172901.23W | Y | FB | TF | 080.34 | 12.39 | AT/ABOVE 9000 | | |
| STAYY | 333459.41N/1172901.23W | Y | - | IF | - | - | AT/ABOVE 9000 | | STAYY2.AVRRY |
| FNCHH | 333438.20N/1171422.80W | Y | FB | TF | 091.58 | 12.24 | | | |
| TBERD | 333744.21N/1165951.91W | Y | FB | TF | 075.61 | 12.51 | | | |
| PEELR | 333639.62N/1162012.96W | Y | FB | TF | 091.68 | 33.13 | | | |
| MTBAL | 333611.93N/1160232.30W | Y | FB | TF | 091.71 | 14.77 | | | |
| AVRRY | 334507.35N/1153414.56W | Y | FB | TF | 089.20 | 25.24 | | | |

Example: FAA Form 8260-15C (Use Current Version)

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| <u>DP NAME</u> | | | | | | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|-------------------|------------------------|----------|--------------|---------------------------|-----------|----------------------------|-------------------------|--------------------------|----------------|------------------------------|
| STAYY | | | | | | TWO | STAYY2.STAYY | ONE | 02/01/2018 | |
| <u>FIX/NAVAID</u> | <u>LAT/LONG</u> | <u>C</u> | <u>EQ/FB</u> | <u>LEG</u> <u>TYPE</u> | <u>IC</u> | <u>DIST</u> <u>(NM)</u> | <u>ALTITUDE</u> | <u>SPEED</u> | <u>REMARKS</u> | |
| STAYY | 333459.41N/1172901.23W | Y | - | IF | - | - | AT/ABOVE 9000 | | STAYY2.CNERY | - |
| WIILD | 333017.34N/1171359.88W | Y | FB | TF | 110.4 | 13.40 | | | | + |
| FLWRZ | 332953.00N/1165405.90W | Y | FB | TF | 091.30 | 16.65 | | | | - |
| BLCKD | 332931.77N/1162528.14W | Y | FB | TF | 090.71 | 23.94 | | | | + |
| CSTWY | 332909.77N/1160203.05W | Y | FB | TF | 090.96 | 19.59 | | | | - |
| CNERY | 333703.75N/1153456.72W | Y | FB | TF | 070.68 | 23.99 | | | | + |
| STAYY | 333459.41N/1172901.23W | Y | - | IF | - | - | AT/ABOVE 9000 | | STAYY2.OTAYY | - |
| WIILD | 333017.34N/1171359.88W | Y | FB | TF | 110.42 | 13.40 | | | | + |
| WAGAV | 331553.62N/1170613.02W | Y | FB | TF | 155.57 | 15.78 | | | | - |
| OTAYY | 323954.45N/1170658.45W | Y | FB | TF | 181.02 | 35.92 | | | | + |
| STAYY | 333459.41N/1172901.23W | Y | - | IF | - | - | AT/ABOVE 9000 | | STAYY2.TCATE | - |
| WIILD | 333017.34N/1171359.88W | Y | FB | TF | 110.42 | 13.40 | | | | + |
| TCATE | 324829.07N/1162859.88W | Y | FB | TF | 137.64 | 56.29 | | | | - |
| | | | | | | | | | | + |

Figure E-13. FAA Form 8260-15C Example

| FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE DEPARTURE (DATA RECORD) | | | | | | | | | |
|--|------------------------|------------------|-------------------|-------|-----------------------|--------------|----------------|---------------|-----------------------|
| DP NAME | NUMBER | DP COMPUTER CODE | SUPERSEDED NUMBER | DATED | ACTUAL EFFECTIVE DATE | | | | |
| TAHOE | ONE | TAHOE1.TAHOE | NONE | | | | | | |
| FIX/NAVAID | LAT/LONG | C | EQ/FB | LEG | IC | DIST (NM) | ALTITUDE | SPEED | REMARKS |
| RWY02 (AER)* | 391852.27N/1200823.90W | N | - | - | - | - | | | CG 500FT/NM TO 6420 |
| 6420 MSL | - | - | - | VA | 029.99 | - | | | CG 425 FT/NM TO 11000 |
| PWWDR | 392743.22N/1200853.98W | Y | FB | DF | - | - | | | LEFT TURN |
| RWY29 (AER)* | 391854.87N/1200752.74W | N | - | - | - | - | | | CG 500 FT/NM TO 10200 |
| 6420 MSL | - | - | - | VA | 299.99 | - | | | |
| PWWDR | 392743.22N/1200853.98W | Y | FB | DF | - | - | | | RIGHT TURN |
| PWWDR | 392743.22N/1200853.98W | Y | - | IF | - | - | | | |
| TAHOE | 393058.46N/1200844.70W | Y | FO | TF | 336.28 | 03.55 | AT/ABOVE 11000 | AT/BELOW 250K | |
| TAHOE | 393058.46N/1200844.70W | Y | FO | HM | 150.00 | 11 | 12000 | | RIGHT TURN |
| TAHOE | 393058.46N/1200844.70W | Y | - | IF | - | - | | | TAHOE1.FMG |
| FMG VORTAC | 393152.55N/193921.86W | Y | FB | TF | 028.99 | 23.98 | | | RIGHT TURN |
| TAHOE | 393058.46N/1200844.70W | Y | - | IF | - | - | | | TAHOE1.SIGNA |
| SIGNA | 392049.57N/1203820.84W | Y | FB | TF | 229.99 | 17.99 | | | LEFT TURN |

Example: FAA Form 8260-15C (Use Current Version)

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**Section 3. Instructions for Completing FAA Form 8260-15E,
RNAV Departure Procedure Attention All Users Page (AAUP)
(RNAV Departure Procedure)**

1. General. This section provides procedural guidance for documenting AAUPs utilized when conducting simultaneous RNAV departure operations from two or more runways. For implementing this section, consider simultaneous operations to be those when RNAV departures can be independently conducted by air traffic.

a. This guidance applies to simultaneous RNAV DPs that use published SIDs with tracks that utilize a standard track divergence angle of 15 degrees or more, as well as those that use reduced track divergence angles.

b. Use FAA Form 8260-15E to document an RNAV DP AAUP. If an AAUP for a DP using navigation other than RNAV is proposed, collaborate with the Flight Operations Group for the documentation of the AAUP.

2. Complete FAA Form 8260-15E. Enter all applicable information. When entering a date use the following format: MM/DD/YYYY.

a. Title Line. The title line consists of the following three headings and will be filled in as noted (for a sample, see figure E-14).

(1) City, State. Enter name of city and state abbreviation; e.g., ATLANTA, GA.

(2) Airport ID (see paragraph 2-1-1.j).

(3) Effective Date. The originating organization determines the desired effective date after coordination with Aeronautical Information Services and the Flight Operations Group and then entered on the AAUP form.

b. General Information. This section consists of the following four elements and will be filled out as noted (see figure E-14).

(1) Preflight. Upon assignment of an RNAV SID, crosscheck the charted RNAV SID with the aircraft navigation system. Consider the following crosscheck items:

(a) Departure Runway if known;

(b) Waypoint sequencing on the RNAV SID;

(c) En Route Transition;

(d) Any specific aircraft navigation operating procedures or limitations,

(e) Do not modify or manually construct waypoints on the SID.

(2) Before Takeoff. Verify any modification to the navigation system, including runway changes, against the charted RNAV SID. Advise ATC if unable to verify correct loading

of the runway and/or procedure or if unable to comply with the RNAV SID. Ensure a runway position update is accomplished prior to takeoff, if required.

(3) Line Up/Takeoff. Expect a takeoff clearance to include, “RNAV track to the first fix/waypoint” or an assigned heading. Consider the following:

(a) If assigned a heading do not delete the RNAV SID from the navigation system.

(b) An RNAV takeoff clearance will be issued with “RNAV to” phraseology. For example, “(Callsign) 123, RNAV to MPASS, Runway 26L, Cleared for Takeoff.” The expected pilot response is “(Callsign) 123, RNAV to MPASS, Runway 26L, Cleared for Takeoff.”

(c) Verify the departure clearance takeoff runway and cleared to fix/waypoint is displayed in the aircraft navigation system. If a discrepancy exists, request an initial heading for takeoff from tower or refuse the takeoff clearance until the discrepancy is resolved.

(d) Verify lateral mode to be used on departure.

(e) Fly the published procedure issued in the IFR clearance if no additional instructions are received with the take-off clearance.

(4) After Takeoff. RNAV to fix/waypoint. Fly runway heading, engage lateral navigation flight guidance when appropriate, and fly the cleared DP. Strict compliance with the lateral track, charted altitude and any speed restrictions is imperative. Parallel RNAV departures must not encroach on the airspace between extended parallel runway centerlines without specific ATC clearance. Manually intervene, if required, to remain on track to avoid deviating in the direction of a parallel runway, track, or aircraft. If unable to comply with the SID profile, either laterally or vertically, immediately notify ATC. Assigned Heading: Fly assigned heading until otherwise cleared.

c. Additional Airport Information. This section will contain information specific to the airport and may contain both textual instructions and graphical depictions; i.e., SPECIFIC INFORMATION: Instructions as applicable (see figure E-14).

d. Administrative Information. Items below are for informational and administrative purposes only. These items are to be completed on the forms and not to be published on the AAUP. A blank FAA Form 8260-15E is available on the FAA website.

(1) Developed By. Enter the information as defined in paragraph 2-1-1.k. as appropriate except enter the name of the person responsible for documenting the AAUP. This individual must sign in the “developed by” space, and enter the date signed. Enter the office or function of the person responsible, such as ATL TRACON or ATL SIT.

(2) Approved By. Enter the information as defined in paragraph 2-1-1.k. as appropriate except enter the name and office or function of the person responsible for approving the AAUP. This individual must sign in the “approved by” space, and enter the date signed.

(3) Coordinated With. Specify the offices/organizations the AAUP was coordinated.

(4) Changes (for revised AAUPs)/Reasons (for initial or revised AAUPs). List changes and reasons relating to AAUP entries.

e. AAUP Processing. The SIT (or applicable ATC facility) must submit the draft AAUP to 9-AWA-AFS400-COORD@faa.gov. For departure AAUPs, include documentation of coordination with Air Traffic Mission Support Services, Mission Support Policy Directorate. Use the subject line “Approval Request: AAUP Simultaneous Arrival” or “Approval Request: AAUP Simultaneous RNAV DP” as appropriate. Flight Operations Group will submit the approved AAUP and requested effective date to Aeronautical Information Services.

EXCEPTION: In the case of a Special procedure requiring an AAUP, FPAG will coordinate the effective date with the appropriate parties.

Figure E-14. FAA Form 8260-15E Example

| | | |
|--|-----------------------------------|-----------------------|
| FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE RNAV DEPARTURE PROCEDURE ATTENTION ALL USERS PAGE (AAUP) | | |
| <u>AIRPORT ID</u> ATL | <u>CITY, STATE</u> ATLANTA, GA | <u>EFFECTIVE DATE</u> |
| <u>ATTENTION ALL USERS PAGE (AAUP)</u> | | |
| SIMULTANEOUS RNAV DEPARTURE | | |
| <i>The purpose of this briefing is to provide guidance, safe operating practices, and phraseology that will help ensure heightened awareness when conducting parallel RNAV departures at specific airports. Where applicable, pilots should comply with established company procedures for RNAV operations.</i> | | |
| 1. PREFLIGHT: | | |
| Upon assignment of an RNAV SID, crosscheck the charted RNAV SID with the aircraft navigation system. Consider the following crosscheck items: | | |
| <ul style="list-style-type: none"> • Departure runway, if known • A waypoint sequence on the RNAV SID • En route transition • Do not modify or manually construct waypoints on the SID • Any specific aircraft navigation operating procedures | | |
| 2. BEFORE TAKEOFF: | | |
| Any modification, including runway changes should be verified in the navigation system with the RNAV SID. If unable to verify correct loading or if unable comply with the RNAV SID, advise ATC. If required, ensure runway position update is accomplished prior to take off. | | |
| 3. LINE UP/TAKEOFF: | | |
| Expect a takeoff clearance that will include an assigned heading or the RNAV track to the first waypoint. Take in to consideration the following: | | |
| <ul style="list-style-type: none"> • If assigned a heading do not delete the RNAV SID from the navigation system. • Verify that the correct runway and first waypoint are loaded, and that the correct lateral navigation mode is available for use after takeoff. If the takeoff clearance does not match the planned/loaded procedure, either request an initial heading from tower or refuse the takeoff clearance until the discrepancy is resolved. • A typical takeoff clearance will state, for example, "(Callsign) 123 RNAV to MPASS, Runway 26L, Cleared for Takeoff." The expected pilot response is, "(Callsign) 123, RNAV to MPASS, Runway 26L, Cleared for Takeoff." | | |

FEDERAL AVIATION ADMINISTRATION
 FLIGHT STANDARDS SERVICE
 RNAV DEPARTURE PROCEDURE
 ATTENTION ALL USERS PAGE (AAUP)

AIRPORT ID

ATL

CITY, STATE

ATLANTA, GA

EFFECTIVE DATE**4. AFTER TAKEOFF:**

Unless instructed to fly a heading by the Tower, engage lateral navigation flight guidance as soon as practical and fly the departure precisely. Strict compliance with the lateral track, charted altitude, and speed restrictions is imperative. Parallel RNAV departures must not encroach on the airspace between extended parallel runway centerlines without specific ATC clearance. Manually intervene if necessary to stay on track to avoid deviating in the direction of a parallel runway, track, or aircraft. If unable to comply with the SID profile, either laterally or vertically, immediately notify ATC.

5. SPECIFIC INFORMATION:

Runway assignment will be issued on initial contact with Atlanta Ground Control at the Ramp exit spot. During dual runway simultaneous departure operations, expect an RNAV departure clearance. During triple simultaneous departure operations, expect a radar vector departure clearance after takeoff and expect vectors to join the filed RNAV/SID route.

Atlanta Departure RNAV SIDs and Associated Departure Directions

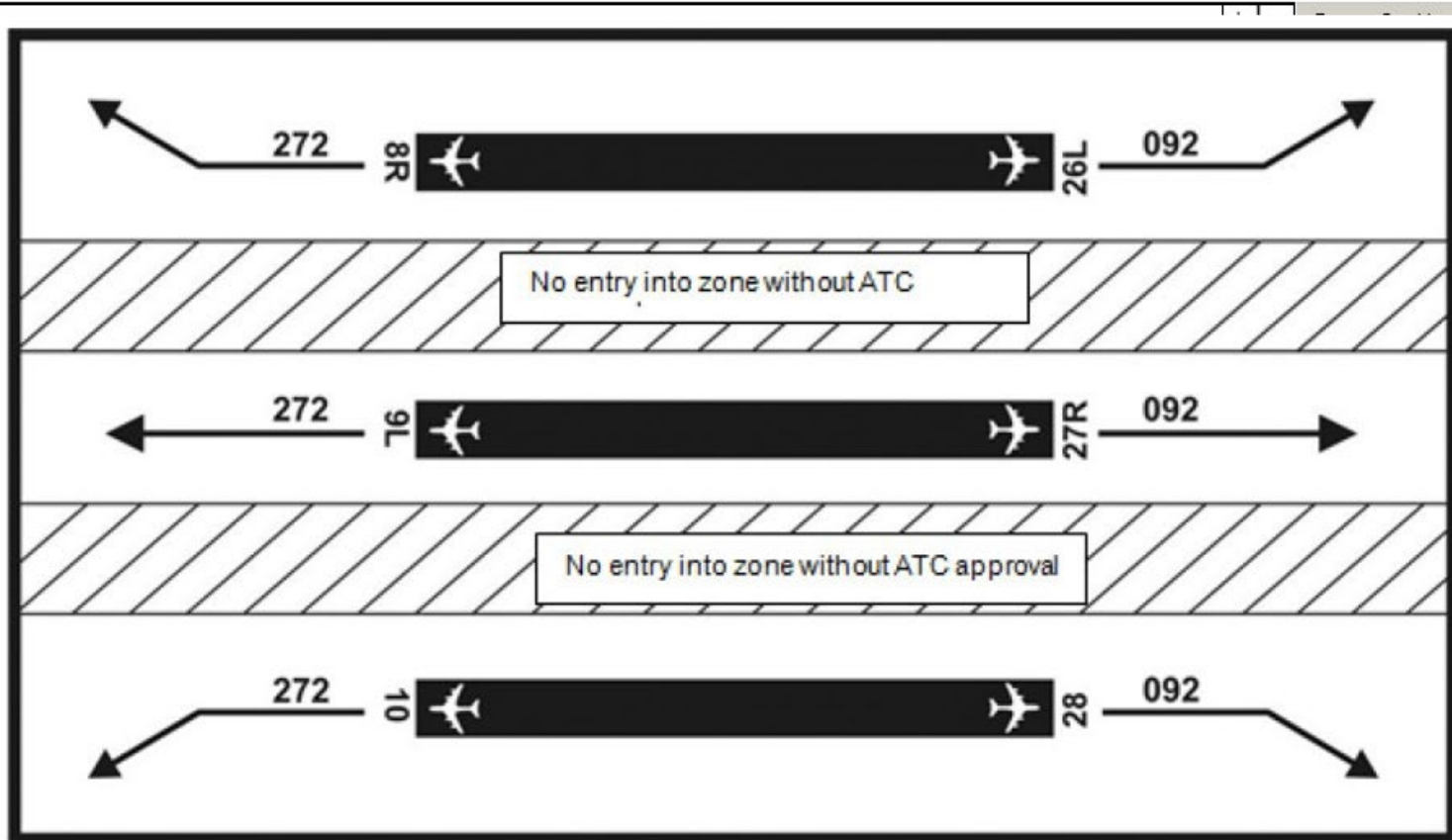
| NORTH | EAST | SOUTH | WEST |
|-------|-------|-------|----------------|
| CADIT | DAWGS | BRAVS | JOGOR (WEST 1) |
| COKEM | DOOLY | PNUTT | JCKTS (WEST 1) |
| SUMMT | MUNSN | THRSR | GEETK (WEST 2) |
| NUGGT | UGAAA | NOVSS | RMBLN (WEST 2) |

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV DEPARTURE PROCEDURE
ATTENTION ALL USERS PAGE (AAUP)

AIRPORT ID
ATL

CITY, STATE
ATLANTA, GA

EFFECTIVE DATE



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV DEPARTURE PROCEDURE
ATTENTION ALL USERS PAGE (AAUP)

AIRPORT ID
ATL

CITY, STATE
ATLANTA, GA

EFFECTIVE DATE

ADMINISTRATIVE INFORMATION: (Do Not Publish)

DEVELOPED BY:

OFFICE SYMBOL:

DATE:

APPROVED BY:

OFFICE SYMBOL:

DATE:

COORDINATED WITH: RAPT, AJV, Delta Air Lines, and AFS-400

CHANGES - REASONS:

CHANGES: N/A (Original)

REASONS: New operation with multiple parallel RNAV departure procedures.

Appendix F. Helicopter RNAV DP

1. General.

a. Helicopter criteria allows for a point-in-space (PinS) Visual or VFR instrument departure from a VFR-certified heliport. For procedures performed as Special procedures, approval is required from the FPAG. All departures must see and avoid obstacles until reaching the IDF where IFR flights begin.

b. All PinS IFR helicopter DPs will consist of a “visual” or “VFR” segment to the IDF, thence via a defined route that is published/charted in graphic form as a SID. The procedure must comply with design and documentation guidelines specified in chapters 2 and 3 and appendices C, D, and E to the maximum extent possible with exceptions as noted throughout this directive.

c. PinS departures may be established to support multiple departure locations. When this condition exists, use a single FAA Form 8260-15B for each heliport identifying the departure to be used. A PinS graphic SID may serve more than one departure location, list each heliport as an Airport Served on the SID.

d. RNAV PinS. FAA Form 8260-15C must accompany all FAA Form 8260-15B submissions.

e. RNAV DPs may be designed using RNAV 1, RNP 1, or RNP 0.30.

2. DP.

a. Departure from a location with a visual segment will be conducted by crossing the IDF outbound at-or-above the altitude depicted. The helicopter will initially establish a hover at or above the heliport crossing height (HCH). If required, specify a minimum hover height in the instructions on the chart to avoid obstacles. The helicopter will leave the departure location on the outbound heading/course specified, climbing at-or-above 400 ft/NM, remaining clear of clouds, crossing at-or-above the IDF altitude specified, prior to proceeding outbound on the procedure.

b. Departure from a location with a VFR segment will be conducted by crossing the IDF outbound at the altitude depicted. DPs that support multiple departure locations will have a VFR segment leading to the IDF. The helicopter will leave the departure location via pilot navigation in order to align with the departure route and comply with the altitude specified at the IDF.

c. Proceed out the described route as specified, crossing each consecutive fix at or above the indicated altitude(s) until reaching the end of the departure.

d. PinS DPs must apply paragraph 3-1-3.d. for procedure naming.

3. Documentation. Complete FAA Form 8260-15B/C as applicable to define the SID. Comply with this order, except as noted below:

a. Paragraph 2-1-3 does not apply to helicopter PinS DPs. Do not complete FAA Form 8260-15A.

b. DP Route Description will consist of two independent sets of instructions. The “VISUAL SEGMENT” or “VFR SEGMENT” and the “IFR SEGMENT.”

(1) Helicopter procedures with a “Visual Segment” will include a hover height (AGL), contain a specific route to the IDF, and the instruction to remain clear of clouds.

Example:

“HOVER AT 15 FT AGL, THEN CLIMB ON TRACK 275.21, REMAINING CLEAR OF CLOUDS, TO CROSS JONES AT OR ABOVE 900.”

(2) Helicopter procedures with a “VFR Segment” will contain instructions to conduct a VFR climb to the IDF (see figure F-2).

Example:

“VFR CLIMB TO (IDF WPT), CROSS (IDF WPT) AT OR ABOVE (IDF Altitude) ON TRACK (outbound track).”

c. Procedures will contain the following chart notes as applicable.

(1) For PBN requirements, see paragraph 2-1-5.i.

(a) For all procedures using RNAV 1 or RNP 1: “NOTE: PILOT MUST ENSURE CDI SENSITIVITY IS SET TO 0.30 NM. CDI MAY BE RESET TO 1.00 NM AFTER (Fix Name).”

(b) For all procedures using RNP 0.3: “NOTE: PILOT MUST ENSURE CDI SENSITIVITY IS SET TO 0.30 NM.

(2) For Equipment requirements see paragraph 2-1-5.j.

(3) Document the altimeter source to be used when departing, use: “NOTE: USE (location ID) ALTIMETER SETTING.”

(4) For procedures that incorporate a turn, document speed restrictions that reflect the speed used for the determination of the turn radius. See paragraph 2-1-5.h(4).

d. Takeoff Minimums.

(1) Apply applicable ceiling and visibility and/or standard minimum CG to altitude to mitigate obstacles within the visual segment of Proceed Visual departures.

(2) Minimum ceiling will correspond with the IFR MSL altitude required at the IDF rounded up to the next higher 100-ft increment, or the highest Heliport Reference Point elevation rounded up to the next higher 100-ft increment, whichever is higher. Consideration must be

given to remote weather source altitude in relation to DP location altitude to ensure accurate ceiling computation.

(3) Minimum visibility for Proceed Visual departures will be 3/4 SM or the distance from the heliport to the IDF, whichever is greater.

(4) Do not publish weather minimums for Proceed VFR departures.

e. Takeoff Obstacle Notes.

(1) Helicopter procedures that contain a “visual segment” from the heliport to the IDF that require obstacles to be identified in the Takeoff Obstacle Notes section of FAA Form 8260-15B must have the obstacle(s) defined by the distance (to the nearest tenth of a NM, or feet if the distance is less than 0.5 NM from the heliport) and bearing (magnetic) from the heliport. Also, include the type of obstacle and MSL elevation; e.g., ANTENNA, 1.3 NM BEARING 221°, 166 MSL.

(2) Helicopter procedures that contain a “VFR segment” from one or multiple heliports to the IDF must not contain Takeoff Obstacle Notes. Leave this section of FAA Form 8260-15B blank.

f. Controlling Obstacles. Document the controlling obstacle(s) on FAA Form 8260-15B in the “Controlling Obstacles” section as follows:

(1) The controlling obstacle within the IDF flat surface area and which the IDF crossing altitude is based upon will be documented and preceded by “IDF Altitude Controlling Obstacle” and will provide the height (MSL), obstacle type (Tower, AAO, etc.), and geographical coordinates:

Example:

“IDF ALTITUDE CONTROLLING OBSTACLE: 2290 FT MSL, ANTENNA, 370549.22N/0802934.16W”

(2) The controlling obstacle within the 20:1 sloping area will be preceded by “IFR Segment Controlling Obstacle” and will provide the height (MSL), obstacle type (Tower, AAO, etc.), and geographical coordinates:

Example:

“IFR SEGMENT ALTITUDE CONTROLLING OBSTACLE: 3325 FT MSL, BUILDING, 370648.22N/0803133.15W”

g. Naming: On FAA Form 8260-15B, check the box as applicable, “COPTER”/“RNAV” to indicate that this procedure requires the “(COPTER)”/“(RNAV)” added to the naming and supports helicopter operations only.

Example: MIKEE ONE DEPARTURE (COPTER) (RNAV)

h. DP Route Description will consist of two independent sets of instructions. The “VISUAL SEGMENT” *or* “VFR SEGMENT” and the “IFR SEGMENT.”

(1) Special helicopter procedures with a “Visual Segment” will include a hover height (AGL), contain a specified route to the IDF, and the instruction to remain clear of clouds (see figure F-1).

Example:

“HOVER AT 15 FEET/AGL, THEN CLIMB ON TRACK 275.21, REMAINING CLEAR OF CLOUDS, TO CROSS JONES AT OR ABOVE 900.

(2) Helicopter procedures with a “VFR Segment” will contain instructions to conduct a VFR climb to the IDF (see figure F-2).

Example:

“VFR CLIMB TO SOSNO, CROSS SOSNO AT OR ABOVE 800.”

4. MSA. Enter the MSA information as defined below as appropriate:

a. Only document the IDF and altitude.

Example:

Single Heliport: “FSTFX, 4000” or “ALOHA, 4000”

b. For multiple heliports precede the IDF and altitude with “ALL HELIPORTS.”

Example:

Multiple Heliports: “ALL HELIPORTS: IDFFX, 4000”

Figure F-1. FAA Form 8260-15B Example

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u> GARYS | <u>NUMBER</u> ONE | <u>DP COMPUTER CODE</u> GARYS1.GARYS | <u>SUPERSEDED NUMBER</u> NONE | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|--------------------------------|-----------------------------|--|---|---------------------|-------------------------------------|

| | | | | | | |
|---------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|
| <u>TYPE:</u> | <u>OBSTACLE</u> | <u>COPTER</u> | <u>SID</u> | <u>SPECIAL</u> | <u>RNAV</u> | |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |

CANCELLATION ☐

DP ROUTE DESCRIPTION:
VISUAL SEGMENT: HOVER AT 15 FEET AGL, THEN TAKEOFF HEADING 300.31 TO INTERCEPT COURSE 270.31, CLIMBING TO CROSS FSTFX IDF AT OR ABOVE 1500.

IFR SEGMENT: CLIMB ON COURSE TO CROSS SECFX AT OR ABOVE 2000, THEN TRACK 180.21 TO CROSS THDX AT OR ABOVE 3000, THEN TRACK 245.33 TO CROSS FORFX AT OR ABOVE 4000, THEN TRACK 180.21 TO CROSS GARYS AT 5000.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| <u>TRANSITION NAME</u> | <u>TRANSITION COMPUTER CODE</u> | <u>FROM FIX/NAVAID</u> | <u>TO FIX/NAVAID</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>MEA</u> | <u>MOCA</u> | <u>CROSSING ALTITUDE/FIXES</u> |
|-------------------------------|--|-------------------------------|-----------------------------|----------------------|------------------------|-------------------|--------------------|---------------------------------------|
|-------------------------------|--|-------------------------------|-----------------------------|----------------------|------------------------|-------------------|--------------------|---------------------------------------|

☐ -
☐ +

PBN REQUIREMENT NOTES:
RNP 0.3 - GPS, AP.

EQUIPMENT REQUIREMENT NOTES:

PROCEDURAL DATA NOTES:
NOTE: USE TILLAMOOK ALTIMETER SETTING
NOTE: POSITIVE COURSE GUIDANCE ON COURSE 270.31 REQUIRED TO ENTER IMC PRIOR TO FSTFIX.
NOTE: LIMIT TO 120 KIAS ON DEPARTURE TO GARYS
NOTE: PILOT MUST ENSURE CDI SENSITIVITY IS SET TO 0.30 NM
NOTE: PROCEDURE NA AT NIGHT

TAKEOFF MINIMUMS:
600-3/4 OR STANDARD WITH MINIMUM CLIMB OF 600 FT PER NM TO 3500

TAKEOFF OBSTACLES NOTES:
ANTENNA 1.3 NM BEARING 221, 166 MSL

CONTROLLING OBSTACLES:
IDF ALTITUDE CONTROLLING OBSTACLE: 166 FEET MSL ANTENNA 452646.70N/1235252.30W
SEGMENT ALTITUDE CONTROLLING OBSTACLE: 652 FEET MSL POWER LINES 452730.60N/1235354.20W

MSA:
FSTFX, 4000

LOST COMMUNICATIONS PROCEDURES:
PROCEED TO ANYFX WAYPOINT THEN EXECUTE THE COPTER RNAV (GPS) 128 APPROACH

ADDITIONAL FLIGHT DATA:
CHART: TOP ALTITUDE: ASSIGNED BY ATC

| <u>DP NAME</u> | <u>NUMBER</u> | <u>DP COMPUTER CODE</u> | <u>SUPERSEDED NUMBER</u> | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|----------------|---------------|-------------------------|--------------------------|--------------|------------------------------|
| GARYS | ONE | GARYS1.GARYS | NONE | | |

AIRPORTS SERVED:

| <u>AIRPORT ID</u> | <u>CITY</u> | <u>STATE</u> |
|-------------------|-------------|--|
| HHH | ANYTOWN | OR <div><div>-</div><div>+</div></div> |

COMMUNICATIONS:

FIXES AND/OR NAVAIDS:

REMARKS:

| | | | |
|----------------------------|---------------|-------------|--------------|
| <u>FLIGHT INSPECTED BY</u> | <u>OFFICE</u> | <u>DATE</u> | |
| <u>DEVELOPED BY</u> | <u>OFFICE</u> | <u>DATE</u> | |
| <u>APPROVED BY</u> | <u>OFFICE</u> | <u>DATE</u> | <u>TITLE</u> |

REQUIRED EFFECTIVE DATE
ROUTINE

COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☐ APA ☐ HAI ☐ NBAA ☐ OTHER:

CHANGES - REASONS:

Figure F-2. FAA Form 8260-15B Example

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u> OHANA | <u>NUMBER</u> ONE | <u>DP COMPUTER CODE</u> OHANA1.OHANA | <u>SUPERSEDED NUMBER</u> NONE | <u>DATED</u> | <u>ACTUAL EFFECTIVE DATE</u> |
|-------------------------|----------------------|---|----------------------------------|--------------|------------------------------|

| | | | | | | |
|--------------|---|--|---|--|--|--|
| <u>TYPE:</u> | <u>OBSTACLE</u> <input type="checkbox"/> | <u>COPTER</u> <input checked="" type="checkbox"/> | <u>SID</u> <input checked="" type="checkbox"/> | <u>SPECIAL</u> <input type="checkbox"/> | <u>RNAV</u> <input checked="" type="checkbox"/> | <u>CANCELLATION</u> <input type="checkbox"/> |
|--------------|---|--|---|--|--|--|

DP ROUTE DESCRIPTION:
VFR SEGMENT: VFR CLIMB TO ALOHA, CROSS ALOHA AT OR ABOVE 800.

IFR SEGMENT: TRACK 040.30 TO CROSS PEARL AT OR ABOVE 1800, THEN TRACK 040.44 TO CROSS HARBR AT OR ABOVE 3300, THEN TRACK 129.41 TO CROSS MOSES AT OR ABOVE 3500, THEN TRACK 086.11 TO CROSS OHANA AT OR ABOVE 3700.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

| <u>TRANSITION NAME</u> | <u>TRANSITION COMPUTER CODE</u> | <u>FROM FIX/NAVAID</u> | <u>TO FIX/NAVAID</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>MEA</u> | <u>MOCA</u> | <u>CROSSING ALTITUDE/FIXES</u> |
|------------------------|---------------------------------|------------------------|----------------------|---------------|-----------------|------------|-------------|--------------------------------|
| | | | | | | | | |

PBN REQUIREMENT NOTES:
RNAV 1 - GPS

EQUIPMENT REQUIREMENT NOTES:

PROCEDURAL DATA NOTES:
NOTE: USE HONOLULU ALTIMETER SETTING

TAKEOFF MINIMUMS:
FROM ALOHA IDF, MINIMUM CLIMB OF 580 FT PER NM TO 3300

TAKEOFF OBSTACLES NOTES:

CONTROLLING OBSTACLES:
IDF ALTITUDE CONTROLLING OBSTACLE: 995 FEET MSL TERRAIN 212350.00N/1574553.00W
SEGMENT CONTROLLING OBSTACLE: 1049 FEET MSL ANTENNA 212410.20N/1574630.20W

MSA:
ALOHA, 4000

LOST COMMUNICATIONS PROCEDURES:
PROCEED TO AKANA WAYPOINT THEN EXECUTE COPTER RNAV (GPS) 220 APPROACH

ADDITIONAL FLIGHT DATA:
CHART: TOP ALTITUDE: ASSIGNED BY ATC

DP NAME
OHANA

NUMBER
ONE

DP COMPUTER CODE
OHANA1.OHANA

SUPERSEDED NUMBER
NONE

DATED

ACTUAL EFFECTIVE DATE

AIRPORTS SERVED:

AIRPORT ID

CITY

STATE

HKH/PHXX

KAMEHAMEHA

HI ☐ -
☐ +

COMMUNICATIONS:

CHART: AWOS-3

FIXES AND/OR NAVAIDS:

REMARKS:

FLIGHT INSPECTED BY

OFFICE

DATE

DEVELOPED BY

OFFICE

DATE

APPROVED BY

OFFICE

DATE

TITLE

REQUIRED EFFECTIVE DATE

ROUTINE

COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☐ APA ☐ HAI ☒ NBAA ☐ OTHER:

CHANGES - REASONS:

Appendix G. FAA Form 8260-15D, Diverse Vector Area

Section 1. Instructions for Completing FAA Form 8260-15D

1. General. Document a separate FAA Form 8260-15D (or applicable military form) for each airport where a DVA has been designed and forward to the requesting ATC facility.

a. The information on the form will be used by the facility to establish the DVA procedure (see figure G-1).

b. For a complex DVA, consider providing a graphic depiction of the area to the facility in addition to FAA Form 8260-15D.

2. Complete FAA Form 8260-15D. Enter all applicable information. When entering a date use the following format: MM/DD/YYYY.

a. Airport ID (see paragraph 2-1-1.j.).

b. City and State. Complete this section with the same location data as on the associated FAA Form 8260-15A.

c. Amendment number. Enter the amendment number as applicable. When FAA Form 8260-15D is an original, enter “ORIG.”

d. Actual Effective date. The effective date is the AIRAC date the DVA will be published.

e. Chart – Diverse Vector Area (Radar Vectors). List each runway to be charted followed by “HEADING AS ASSIGNED BY ATC.” When applicable, include CG information [see paragraph 2-1-5.h.(3)].

Example:

RWY 21: HEADING AS ASSIGNED BY ATC; REQUIRES MINIMUM CLIMB OF 215 FT/NM TO 4000.

RWY 4, 22, 30L, 30R: HEADING AS ASSIGNED BY ATC.

RWY 17: HEADING AS ASSIGNED BY ATC; REQUIRES MINIMUM CLIMB OF 215 FT/NM TO 1500.

f. For ATC use only. List each runway assessed for a DVA followed by a description of the area. Do not include the buffer areas within the description since these descriptions may be used by ATC facilities to define radar video maps for the DVA.

(1) Isolation area. Include the latitude/longitude of the DRP and a distance from DRP determined by the diverse departure evaluation distance (25/46 NM) minus 5 NM. Describe in detail the isolation area(s) that must be avoided.

Example:

RWY 31: ALL AREA WITHIN 20 NM OF 352336.01N/0973607.80W (DEPARTURE REFERENCE POINT) EXCEPT FOR THE FOLLOWING AREAS: 1) WITHIN 3 NM RADIUS OF 352557.45N/0974109.53W AND 2) WITHIN 3 NM RADIUS OF 353405.64N/0972920.85W.

(2) Range of authorized headings. Describe the authorized range of headings (corresponding to the lateral sector boundaries) beginning with the extreme left heading, clockwise to the extreme right heading as would be viewed from the departure runway in the direction of the departure, as well as the distance from the DRP to which the DVA is applicable. Also, provide a detailed point-to-point description of the area to assist in the creation of a video map.

Example:

RWY 6: AUTHORIZED HEADINGS 270 CLOCKWISE TO 150 WITHIN 20 NM OF 384457.07N/0902229.98W (DEPARTURE REFERENCE POINT).

INCLUDES ALL AREA WITHIN 384457.07N/0902229.98W TO 384454.27N/0904803.87W THEN VIA 20 MILE ARC CENTERED ON 384457.07N/0902229.98W TO 382736.10N/0900946.11W TO 384457.07N/0902229.98W.

(3) Climb to initial MVA/MIA. Describe the authorized range of headings beginning with the extreme left heading, clockwise to the extreme right heading as would be viewed from the departure runway in the direction of the departure. The DVA description must state it is applicable only within those areas where the MVA/MIA sector altitude is equal to or less than the initial MVA/MIA.

Example:

RWY 36: AUTHORIZED HEADINGS 310 CLOCKWISE TO 050 TO 3500 WITHIN ANY MVA SECTOR WITH A MINIMUM ALTITUDE OF 3500 OR LESS.

(4) Defined area. Use latitude/longitude points, lines, arcs, and arc center points (as applicable) to describe the area.

Example:

RWY 21L: WITHIN THE AREA BOUNDED BY A SERIES OF LINES FROM
381458.00N/1215805.00W TO
381014.00N/1220922.00W TO
380200.00N/1215823.00W TO
381831.00N/1213839.00W TO
382207.00N/1214546.00W TO
381458.00N/1215805.00W.

g. Obstacle evaluation area (OEA). This area is used to document and describe the OEA (including buffer areas where utilized) of the DVA and will primarily be used for identifying and evaluating the aeronautical effect of proposed obstacles. Enter a description of each OEA (using as necessary latitude/longitudes, bearings, arcs, radii, etc.) for which a DVA has been established. Apply paragraph 2-1-1.i. to document the ICA criteria and the Order 8260.3 version.

h. Authorized facility. Specify the ATC facility(s) which requested the DVA and for which the DVA is applicable. When an additional ATC facility has requested to use an existing DVA (see Order 8260.3 for limitations when an additional ATC facility will use the DVA), that facility must also be specified. Include facility(s) contact information, i.e., phone number.

i. FAA Form 7210-9 date. For a DVA based on a climb to an initial MVA/MIA, enter the date of FAA Form 7210-9 that was used to evaluate the DVA. Leave blank for other DVA types.

Note: A DVA does not require a flight inspection; therefore, no additional signatures are required.

j. Developed by. Enter the information as defined in paragraph 2-1-1.k., as appropriate.

k. Approved by. Enter the information as defined in paragraph 2-1-1.k., as appropriate.

l. Changes/Reasons. List changes or reasons from FAA Form 8260-15D, which immediately preceded the current version. Leave blank for an original.

Figure G-1. FAA Form 8260-15D Example

| | | | | |
|--|-------------|---------------|----------------|------------------------------|
| FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE DIVERSE VECTOR AREA (DVA) | | | | |
| Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Distances are in nautical miles. | | | | |
| <u>AIRPORT ID</u> | <u>CITY</u> | <u>STATE</u> | <u>AMDT NO</u> | <u>ACTUAL EFFECTIVE DATE</u> |
| BUR | BURBANK | CA | ORIG | 04/19/2023 |
| CHART - DIVERSE VECTOR AREA (Radial Vectors): | | | | |
| RWY 8: HEADING AS ASSIGNED BY ATC; REQUIRES MINIMUM CLIMB OF 420 FT PER NM TO 2500. | | | | |
| RWY 15: HEADING AS ASSIGNED BY ATC; REQUIRES MINIMUM CLIMB OF 340 FT PER NM TO 2100. | | | | |
| RWY 26: HEADING AS ASSIGNED BY ATC; REQUIRES MINIMUM CLIMB OF 380 FT PER NM TO 4800. | | | | |
| <input type="checkbox"/> | | | | |
| FOR ATC USE ONLY: | | | | |
| CANCELLATION | | | | |
| RWY 8: AUTHORIZED HEADINGS 130 CLOCKWISE TO 230 WITHIN 14 NM OF 341152.16N/1182145.10W (DEPARTURE REFERENCE POINT) INCLUDES ALL AREA WITHIN 341152.16N/1182145.10W TO 341210.88N/1181950.58W, THEN VIA 4.2 NM CLOCKWISE ARC CENTERED ON 340758.47N/1181955.58W TO 341033.83N/1181556.21W, TO 340255.26N/1180845.99W, THEN VIA 14 NM CLOCKWISE ARC CENTERED ON 341152.16N/1182145.10W TO 340516.21N/1183638.11W, TO 341152.16N/1182145.10W. | | | | |
| RWY 15: AUTHORIZED HEADINGS 180 CLOCKWISE TO 270 WITHIN 13 NM OF 341225.16N/1182132.34W (DEPARTURE REFERENCE POINT) INCLUDES ALL AREA WITHIN 341225.16N/1182132.34W TO 341034.49N/1182032.29W, THEN VIA 4.2 NM CLOCKWISE ARC CENTERED ON 340937.95N/1182528.28W TO 340845.58N/1182031.23W, TO 335926.73N/1182253.83W, THEN VIA 13 NM CLOCKWISE ARC CENTERED ON 341225.16N/1182132.34W TO 341506.65N/1183652.75W, TO 341225.16N/1182132.34W. | | | | |
| RWY 26: AUTHORIZED HEADINGS 240 CLOCKWISE TO 300 WITHIN 14 NM OF 341151.86N/1182123.67W (DEPARTURE REFERENCE POINT) INCLUDES ALL AREA WITHIN 341151.86N/1182123.67W TO 340730.78N/1183725.98W, THEN VIA 14 NM CLOCKWISE ARC CENTERED ON 341151.86N/1182123.67W TO 342114.26N/1183357.65W, TO 341151.86N/1182123.67W. | | | | |
| OBSTACLE EVALUATION AREA (not for video mapping use): | | | | |
| RWY 8: FROM 341152.16N/1182145.10W TO 341210.88N/1181950.58W, THEN VIA 4.2 NM CLOCKWISE ARC CENTERED ON 340758.47N/1181955.58W TO 341132.53N/1181714.57W, TO 340556.01N/1180628.11W, THEN VIA 14 NM CLOCKWISE ARC CENTERED ON 341152.16N/1182145.10W TO 340528.69N/1180644.22W, THEN VIA 3.06 NM CLOCKWISE ARC CENTERED ON 340255.26N/1180845.99W TO 340030.28N/1180630.31W, THEN VIA 17 NM CLOCKWISE ARC CENTERED ON 341152.16N/1182145.10W TO 340351.13N/1183949.16W, THEN VIA 3 NM CLOCKWISE ARC CENTERED ON 340516.21N/1183638.11W TO 340803.38N/1183759.29W, THEN VIA 14 NM CLOCKWISE ARC CENTERED ON 341152.16N/1182145.10W TO 340953.91N/1183827.56W, TO 341152.16N/1182145.10W. CONTROL OBSTACLE: 2039 FT. MSL AAO ON TERRAIN AT 340813.79N/1181935.23W (CG AND CTA). | | | | |
| RWY 15: FROM 341225.16N/1182132.34W TO 341034.49N/1182032.29W, THEN VIA 4.2 NM CLOCKWISE ARC CENTERED ON 340937.95N/1182528.28W TO 341013.20N/1182027.56W, TO 335937.01N/1181840.28W, THEN VIA 13 NM CLOCKWISE ARC CENTERED ON 341225.16N/1182132.34W TO 335932.04N/1181916.11W, THEN VIA 3.02 NM CLOCKWISE ARC CENTERED ON 335926.73N/1182253.83W TO 335629.26N/1182339.01W, THEN VIA 16 NM CLOCKWISE ARC CENTERED ON 341225.16N/1182132.34W TO 341543.65N/1184025.28W, THEN VIA 3 NM CLOCKWISE ARC CENTERED ON 341506.65N/1183652.75W TO 341757.77N/1183543.81W, THEN VIA 13 NM CLOCKWISE ARC CENTERED ON 341225.16N/1182132.34W TO 341918.49N/1183450.99W, TO 341225.16N/1182132.34W. CONTROL OBSTACLE: 1719 FT. MSL AAO ON TERRAIN AT 340734.43N/1182205.99W (CG AND CTA). | | | | |
| RWY 26: FROM 341151.86N/1182123.67W TO 340313.07N/1183440.34W, THEN VIA 14 NM CLOCKWISE ARC CENTERED ON 341151.86N/1182123.67W TO 340446.45N/1183556.82W, THEN VIA 3 NM CLOCKWISE ARC CENTERED ON 340730.78N/1183725.98W TO 340634.56N/1184051.98W, THEN VIA 17 NM CLOCKWISE ARC CENTERED ON 341151.86N/1182123.67W TO 342314.61N/1183639.58W, THEN VIA 3 NM CLOCKWISE ARC CENTERED ON 342114.26N/1183357.65W TO 342314.80N/1183115.95W, THEN VIA 14 NM CLOCKWISE ARC CENTERED ON 341151.86N/1182123.67W TO 342414.56N/1182920.27W, TO 341151.86N/1182123.67W. CONTROL OBSTACLE: 3799 FT. MSL AAO ON TERRAIN AT 342117.06N/1182732.03W (CG AND CTA). | | | | |
| AUTHORIZED FACILITY: | | | | |
| SOUTHERN CALIFORNIA TRACON (SCT) PHONE: (858) 537-5801 FACILITY MANAGER, (858) 537-5830 OPERATIONS SUPPORT MANAGER. | | | | |
| FAA FORM 7210-9 DATE: | | | | |
| DEVELOPED BY | | OFFICE | DATE | |
| APPROVED BY | | OFFICE | DATE | TITLE |
| CHANGES - REASONS: | | | | |

Figure G-2. FAA Form 8260-15D Example

| FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE DIVERSE VECTOR AREA (DVA) | | | | |
|---|---------|--------|---------|-------------------------------------|
| Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Distances are in nautical miles. | | | | |
| AIRPORT ID | CITY | STATE | AMDT NO | ACTUAL EFFECTIVE DATE |
| LBB | LUBBOCK | TX | ORIG | |
| CHART - DIVERSE VECTOR AREA (Radar Vectors): | | | | |
| | | | | CANCELLATION |
| FOR ATC USE ONLY: | | | | <input checked="" type="checkbox"/> |
| Procedure Canceled Effective <u>01/05/2023</u> | | | | |
| OBSTACLE EVALUATION AREA (not for video mapping use): | | | | |
| AUTHORIZED FACILITY: | | | | |
| FAA FORM 7210-9 DATE: | | | | |
| DEVELOPED BY | | OFFICE | DATE | |
| APPROVED BY | | OFFICE | DATE | TITLE |
| CHANGES - REASONS: | | | | |
| DVA NO LONGER REQUIRED - ATC REQUEST | | | | |

Directive Feedback Information

Please submit any written comments or recommendation for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: FAA Order 8260.46K, Departure Procedures (DP) Program

To: 9-AWA-AFB-120-Directives@faa.gov and/or 9-AWA-AFS400-COORD@faa.gov

(Please mark all appropriate line items)

- ☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.
- ☐ Recommend paragraph _____ on page _____ be changed as follows: *(attach separate sheet if necessary)*
- ☐ In a future change to this order, please include coverage on the following subject:
(briefly describe what you want added.)
- ☐ Other comments:
- ☐ I would like to discuss the above. Please contact me.

Submitted by: _____ Date: _____

Telephone Number: _____ Routing Symbol: _____