

ORDER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

8260.46

12/29/97

SUBJ: Instrument Departure Procedure (DP) Program

1. PURPOSE. This order provides guidance and standardization for initiating, processing, developing, and managing the DP program.

2. DISTRIBUTION. This order is distributed in Washington headquarters to the division level of Flight Standards Service; to the branch level of Air Traffic Service; the Offices of Airport Safety and Standards, and Communications, Navigation, and Surveillance Systems; to the National Flight Procedures Office (NFPO); to the Regulatory Standards and Compliance Division at the Mike Monroney Aeronautical Center; to regional Flight Standards and Air Traffic divisions; to all Air Traffic field offices and facilities, and special military and public addressees.

3. BACKGROUND. Prior to the implementation of this order, instrument departure routes were produced in two formats. The first was the textually published departure procedure created to ensure obstacle clearance when climbing to the en route environment. These procedures were produced under the guidance of the Flight Standards Service (AFS). The second format was the graphical publication of the Standard Instrument Departure (SID). SID's ensured air traffic route and altitude separation while climbing to the en route environment and reduced pilot/controller radio traffic. They were produced under the guidance of the Air Traffic Service (AAT). The advent of modern area navigation (RNAV) systems, such as Flight Management System (FMS) and Global Positioning System (GPS), requires processing of both conventional (non-RNAV) and RNAV departures in a common manner that accomplishes the purposes of textual departure procedures and graphic SID's. This document establishes processing and management policy for the production of a combined product called an instrument departure procedure.

4. CANCELLATION. Order 7100.8B, Standard Instrument Departure (SID), dated July 23, 1993, and FAA Form 7100-1, SID Standard Instrument Departure, are canceled.

5. EFFECTIVE DATE. January 1, 1998

6. DEFINITIONS. Appendix 1 contains a glossary of terms, abbreviations, and acronyms used in this order.

7. RELATED PUBLICATIONS.

- a. **Order 1050.1**, Policies and Procedures for Considering Environmental Impacts.
- b. **Order 7100.11**, Flight Management System Procedures Program
- c. **Order 7400.2**, Procedures for Handling Airspace Matters.

Distribution: A-W(FS)-2; A-W(AT/AS/ND)-3; AVN-100 (100 cys); AMA-200 (80 cys) **Initiated by:** AFS-420
A-X(FS/AT)-2; A-FAT-O; Special Military and Public Addressees

- d. **Order 8260.3**, Terminal Instrument Procedures (TERPS).
- e. **Order 8260.19**, Flight Procedures and Airspace.
- f. **Order 8260.40**, Flight Management System (FMS) Instrument Procedure Development.
- g. **Order 8260.44**, Civil Utilization of Area Navigation (RNAV) Departure Procedures.
- h. **Notice 7210.360**, Noise Screening Procedures Criteria for Certain Air Traffic Actions Above 3,000 Feet.
- i. **RTCA DO-187**, Minimum Operational Performance Standards for Airborne Navigation.
- j. **ARINC Specification 424**, Navigation System Data Base.

8. TYPES OF DEPARTURE PROCEDURES.

- a. **Textually published** DP's are relatively simple procedures that do not require graphical publication for clarity.
- b. **Graphically published** DP's are more complex than textually published procedures and require a visual presentation to communicate the departure instructions.
 - (1) **Pilot Navigation.** This is a DP where the pilot is primarily responsible for navigation along the published route.
 - (2) **Vector Navigation.** DP's established where ATC provides radar navigational guidance to a filed/assigned route or to a fix depicted on an instrument departure.
 - (3) **Non-RNAV DP's** are established for aircraft equipped with conventional avionics using ground-based NAVAID's, e.g. nondirectional beacons, very high frequency omnidirectional range, very high frequency omnidirectional range tactical air navigation, LOCALIZER, etc.
 - (4) **RNAV DP's** are established for aircraft equipped with RNAV avionics, e.g. GPS, FMS, etc. These aircraft are certified for use of Slant E, F, and G equipment suffixes. As a general rule, automated vertical navigation capability will not be required.

9. CRITERIA FOR GRAPHICALLY DEPICTED DEPARTURE PROCEDURES.

- a. **RNAV procedures** shall be graphically depicted.
- b. **The decision to graphically publish non-RNAV DP's** rests with the NFPO. When determining if a non-RNAV departure requires graphical publication, the NFPO shall consider:
 - (1) **The number of heading** and/or altitude changes.
 - (2) **The number of ground-based** NAVAID's and fixes.
 - (3) **Does the textual description** lead the pilot to easily visualize the procedure?
 - (4) **The proximity and effect** of precipitous or significant terrain.
 - (5) **Air traffic operational requirements** to ensure efficiency and reduce communications.

(6) **The complexity** of the textual description.

10. RESPONSIBILITIES.

a. General.

(1) **Cancellation.** DP's may be canceled only by ATC, the NFPO, or Department of Defense (DOD), as appropriate. ATC and DOD initiated cancellations shall be sent to AVN-100 for action. A proponent recommendation for cancellation shall be made to the appropriate ATC facility, which will forward approved requests to the NFPO for action. NFPO initiated cancellations shall be coordinated with ATC or DOD, as appropriate.

(2) **Procedure Requests.** Departure procedures are normally requested by the ATC facility responsible for departure control at the airport where the procedure is proposed, the NFPO, or another proponent.

b. Proponent. The proponent's request shall be made to the ATC facility providing departure control service to the airport. Additionally, the proponent shall provide ATC the following:

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

(2) **A proposed ground track**, including waypoints and altitudes, or assistance in the development of same.

c. ATC. When assisting a proponent or initiating a procedure, the ATC facility providing departure control service shall:

(1) **Evaluate the proponent's request** and ascertain preliminary operational feasibility and determine/verify that significant benefits (see appendix 2) will be derived.

(2) **To assist in designing the procedure**, provide the proponent with copies of appendices 2 and 3 and information pertaining to traffic flow and operational constraints; e.g. route, minimum IFR altitudes, facility/sector lateral and vertical airspace boundaries.

Note: When an ATC facility proposes development of an RNAV departure procedure from an airport whose traffic mix is primarily air carrier traffic, it may attempt to obtain a "lead carrier" to ensure flyability and assist in the proposed procedure's suggested design. See FAA Order 7100.11.

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

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

(5) **Conduct a noise screening** under Notice 7210.360.

Note: FAA Notice 7210.360 has expired; however, the noise screen is still required. The requirement will be re-established in FAA Order 7490, Air Traffic Environmental Order, which is in final coordination.

(6) **Conduct an environmental review** under Order 1050.1 to ensure that the requirements of the National Environmental Policy Act have been met.

Note: When an FAA action is requested from the public, there may be particular situations such as issuance of various certificates, approval of airline operating specifications or amendments, establishment of new or revised instrument approach/DP affecting noise sensitive areas, etc., which will require the FAA to do an environmental assessment. Whenever this situation occurs, FAA action may be delayed unless assistance in the development of pertinent environmental data is furnished by the applicant or other interested persons.

(7) All fixes in a DP shall be named. Coordinate with the servicing air route traffic control center (ARTCC) to obtain a 5-letter pronounceable name. Complete FAA Form 8260-2 Worksheet for each fix being established, modified, or canceled. Include the worksheet(s) as part of the DP request package (see appendix 4).

(8) Complete the DP Requirements Data Worksheet (see appendix 3).

(9) Forward the requested package to the appropriate Flight Procedures Office (FPO). If possible, the package should be transmitted electronically. The package shall contain worksheets for all fixes, the DP Requirements Data worksheet, and a sketch of procedures requiring graphic publication (see appendix 5).

(10) Review DP's initiated/forwarded by ATC at least biennially for continued need, and make recommendations to the NFPO for improvement to the NAS.

d. The FPO shall:

(1) Review the DP package for completeness.

(2) Review DP's for impact by current or proposed Obstacle Evaluation/Airport Airspace Analysis, Facilities and Equipment, National Change Proposal, or other applicable projects.

Note: The point-of-contact (POC) and telephone number for the ATC facility is listed on the Instrument Departure Procedure Requirements Data Worksheet. The Regional FPO procedures specialist shall contact the POC to resolve any problems in developing the requested procedure and provide appropriate alternatives. The POC shall be responsible for additional coordination of changes required for development.

(3) Electronically transmit the DP package to the appropriate NFPO branch manager.

e. NFPO. The NFPO shall:

(1) Develop and process textual DP's on FAA Form 8260-15A, Takeoff Minimums and Textual Instrument Departure Procedure (DP), under applicable directives.

(2) Develop and process graphic DP's on FAA Form 8260-15B, Graphic Instrument Departure Procedure (DP), under applicable directives.

(3) Electronically transmit DP's to Flight Inspection Operations, AVN-200.

(4) Upon satisfactory flight inspection, forward the FAA Form 8260-2, Radar Fix and Holding Data Record, and appropriate 8260-15 forms to the National Flight Data Center (NFDC) and include all affected ATC facilities as addressees.

(5) Forward the original signed forms to NFDC, ATA-110.

(6) Review NFPO initiated DP's at least biennially for continued need, obstacle clearance, and compliance with current criteria and policy, and coordinate proposed changes with the appropriate ATC facility.

(7) When it is necessary to cancel a DP, amend the appropriate FAA Form 8260-15 as necessary. Process the form under Order 8260.19. See example form in appendix 5.

f. NFDC. The NFDC shall:

(1) Assign an effective date and publish the narrative description via the transmittal letter (T L) authorizing the charting agencies to publish the procedure.

(2) Coordinate data conflicts, etc., with the NFPO.

(3) File and maintain the original signed copy of the forms in the National Repository.

11. ACCURACY VERIFICATION AND RESPONSIBILITIES. ATC facilities shall take the following action whenever errors are discovered in the transmittal letter or when reviewing the departure procedures.

a. Notify the NFDC of charting errors by the fastest means available. The NFDC will take appropriate action.

b. Notify the NFPO of errors which affect safety of flight by the fastest means available. The NFPO will take appropriate action in the Notice to Airmen.

12. MILITARY DEPARTURE PROCEDURES.

a. Military DP's are not handled or published in the same manner as civil DP's. Approval authority for DP's at military airports rests with the military. The FAA develops U.S. Army DP's under FAA Order 8260.15, U.S. Army Terminal Instrument Procedures Service. The FAA develops U.S. Air Force DP's at joint-use airfields under FAA Order 8260.32, U.S. Air Force Terminal Instrument Procedure Service. All military DP charts are published as individual charts by the National Imagery and Mapping Agency (NIMA) for publication in DOD Flight Information Publications (FLIP) for loose-leaf controlled distribution.

Note: Military DP's shall be named and numbered in accordance with the criteria outlined in this order.

b. FAA requires that all military DP's be coordinated with FAA ATC facilities or regions when such DP's affect the National Airspace System (NAS). ARTCC or regional Air Traffic divisions shall assist the military in coordinating the procedures and in obtaining computer codes to ensure that the procedures are properly interfaced with the National Air Space (NAS). Air Force and Navy procedures are NOT sent to NFDC, ATA-110.

c. When military DP's affect airspace under the jurisdiction of FAA facilities, those facilities/ARTCC's shall maintain copies of the DP.

13. INFORMATION UPDATE. Forward for consideration any deficiencies found, clarification needed, or suggested improvements regarding the content of this order to:

DOT/FAA
ATTN: Flight Procedure Standards Branch, AFS-420
P.O. Box 25082
Oklahoma City, OK 73125

a. Your Assistance is Welcome. FAA Form 1320-19, Directive Feedback Information (Appendix 6), is included in this order for your convenience. If an interpretation is needed immediately, you may call the originating office for guidance. However, you should also use FAA Form 1320-19 as a follow-up to the verbal conversation.

b. Use the “Other Comments” block of this form to provide a complete explanation of why the suggested change is necessary.

Thomas E. Stuckey
Acting Director, Flight Standards Service

APPENDIX 1. ABBREVIATIONS, TERMS, AND DEFINITIONS

ATC. Air Traffic Control.

DOD. Department of Defense.

Electronic Transmission. Transmittal via electronic mail or facsimile (FAX).

Fix. A generic term used to define a predetermined geographical position used for route definition. A fix may be a ground-based NAVAID, a waypoint, or defined by reference to one or more radio NAVAID's.

Fly-by Waypoint. A fly-by waypoint requires the use of turn anticipation to avoid overshoot of the next flight segment.

Fly-over Waypoint. A fly-over waypoint precludes any turn until the waypoint is overflowed and is followed by an intercept maneuver of the next flight segment.

FMS. Flight Management System.

FPO. National Flight Procedures Office/Flight Procedures Office. These offices are part of AVN-100 and are geographically co-located at each FAA regional headquarters.

FRD. Fix Radial Distance. A method of defining a fix with reference to the azimuth and distance of a ground-based NAVAID.

Instrument Departure Procedure (DP). A DP published for pilot use in graphic and/or textual format. Instrument departures provide obstacle clearance and transition from the terminal environment to the en route structure.

DP Transition. A published segment used to connect the basic DP to one or several en route airways/jet routes.

IRU. Inertial Reference Unit.

Lead Carrier. An air carrier or operator that has agreed to serve as the focal point for the development of DP's at a specific airport. The lead carrier agrees to help develop the DP and ensure flyability by all RNAV-equipped aircraft expected to use the DP.

NAVAID. Navigational Aid. See Aeronautical Information Manual (AIM). Any visual or electronics device airborne or on the surface which provides point-to-point guidance information or position data to aircraft in flight.

NFDC. National Flight Data Center.

NFPO. National Flight Procedures Office. The main location of AVN-100 in Oklahoma City.

Non-RNAV Instrument Departure. DP whose ground track is based on ground-based NAVAID's.

Pilot Navigation DP. A procedure where the pilot is primarily responsible for navigation along the published route.

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

Required Navigation Performance (RNP). A statement of the navigational performance accuracy necessary for operation within defined airspace.

RNAV. Area Navigation.

RNAV DP. A DP developed for RNAV-equipped (slant E,F,G) aircraft whose ground track is not dependent on ground-based NAVAID'S.

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.

Slant E (/E). An aircraft equipment suffix denoting that the aircraft has an electronic map, at least dual IRU's and dual FMS's which meet the requirements of Advisory Circulars (AC's) 20-129, 20-130, and 25-15; ARINC Specification 424; and RTCA DO-187 or equivalent standards as determined by the Flight Standards Service.

Slant F (/F). An aircraft equipment suffix denoting that the aircraft has an FMS that meets the requirements of AC's 20-129, 20-130, and 25-15; ARINC Specification 424; and RTCA DO-187 or equivalent standards as determined by the Flight Standards Service.

Slant G (/G). An aircraft equipment suffix denoting that the aircraft has Global Positioning System (GPS)/Global Navigation Satellite System (GNSS) equipment with oceanic, en route, terminal, and GPS approach capability.

Vector DP. DP's established where ATC provides radar navigational guidance to a filed/assigned route or to a fix depicted on an instrument departure.

Waypoint. A predetermined geographical position used for route definition and/or progress reporting purposes defined by latitude/longitude and may include elevation.

APPENDIX 2. PROPONENT'S GUIDELINES FOR THE DESIGN OF PUBLISHED INSTRUMENT DEPARTURE PROCEDURES (DP's)

1. GENERAL.

a. Safety is a primary concern and DP's must be designed so that they provide obstacle clearance and can be confidently and consistently flown by all aircraft expected to use the procedure.

b. The DP should provide for a significant user/system benefit.

c. The DP should reduce pilot/controller communications and workload.

d. DP's must be relatively simple and easily understood.

e. Use only the minimum number of fixes necessary to depict the route.

f. DP's should be developed to accommodate as many different types of aircraft as possible.

g. Unless DP transitions are used, DP's should terminate at an en route fix appropriate for the altitude structure being flown.

h. Avoid the use of distance measuring equipment arcs.

2. NAMING OF GRAPHICALLY DEPICTED DP's.

a. Vector DP's shall normally be named to correspond with the terminal control facility name. For example, the vector DP from Tampa International (TPA) is named the TAMPA THREE DEPARTURE (VECTOR). If the facility name is already in use, use a fix or geographical area to include city or airport name.

b. Pilot navigation DP's shall normally be named to correspond with the fix name where the basic DP ends. If two or more DP's end at the same fix, the second and subsequent DP's shall be named for the city, airport, or geographical area in that order. For example, a pilot navigation departure from Altoona-Blair County (AOO) ends at the TATES fix. The DP is named the TATES TWO DEPARTURE. If the instrument departure is an RNAV procedure, the RNAV abbreviation shall be included in the title, for example, TATES TWO RNAV DEPARTURE.

c. Number each original DP "one." Number subsequent revisions in numerical sequence through nine and then start over with one. Renumber DP's when a fix, course, or altitude is changed.

3. TRANSITION NAMING. DP transition names shall always correspond with the fix where the transition ends and the aircraft enters the en route structure. For example, the FORT LAUDERDALE SEVEN DEPARTURE has a transition to the ZAPPA intersection, the transition name is ZAPPA.

4. COMPUTER CODES.

a. Instrument departure procedure. DP computer codes will be assigned by using the abbreviated name of the DP, that is, a NAVAID 3-letter identifier or a 5-letter fix identifier, followed by the current DP number, then a dot, followed by the DP name identifier. For example, the Fort Lauderdale DP in paragraph 3 above is coded FLL7.FLL.

b. Instrument Departure Transition. DP transition computer codes will be assigned by using the basic DP identifier and number as noted in paragraph 4a, followed by a dot, followed by the identifier of the fix where the transition ends. Using the Fort Lauderdale example, the ZAPPA transition is coded FLL7.ZAPPA.

5. RNAV DP's. The following criteria and guidelines apply only to DP's designed for exclusive use by certain RNAV-equipped aircraft.

a. Waypoints.

(1) **Fly-by waypoints** shall be used whenever possible.

(2) **Fly-over waypoints** should only be used when operationally necessary and for obstacle clearance.

b. Legs.

(1) **In order for the RNAV DP's** to eventually qualify as a required navigation performance (RNP) procedure, only the following ARINC Standard 424 leg types should be used:

(a) IF - initial fix.

(b) TF - fixed waypoint to a fixed waypoint. Commonly called "track to a fix."

(c) RF - constant radius to a fix.

(2) **Use the longest legs possible.** The designer must consider speed and course changes when determining minimum leg length. Refer to Order 8260.40 for specific minima.

Note 1. A majority of current RNAV systems do not support RF legs. For use with systems not supporting RF legs, the DP designer should use TF legs with fly-by way points.

6. SPEED. The procedure specialists at NFPO may recommend or impose a speed restriction to ensure obstacle clearance or airspace efficiency during turns.

7. ALTITUDE.

a. Use as few altitude restrictions as possible.

b. Use at-or-above, at-or-below, or altitude windows whenever possible.

c. Use hard altitudes only when necessary.

APPENDIX 3. INSTRUMENT DEPARTURE PROCEDURE (DP) REQUIREMENTS DATA

Instructions for completing DP requirements worksheet by other than NFPO personnel.

BLOCK 1. AIRPORTS(S). Enter the name of the airport and the ICAO identifier.

BLOCK 2. CITY AND STATE. Self explanatory.

BLOCK 3. DEPARTURE NAME AND COMPUTER CODES. Enter the proposed name of the DP and computer code. Use the naming and computer code conventions as outlined in appendix 2. Coordinate the proposed name(s) and code(s) with the servicing ARTCC to ensure there are no duplications.

BLOCK 4. TYPE OF ACTION REQUIRED. Indicate whether a new procedure is being established or modifying an existing DP.

BLOCK 5. TYPE OF DP's. Indicate the type of DP; i.e., PILOT/NAV or Vector.

BLOCK 6. ROUTE:

6.1. RUNWAY(S)/HELIPADS/VERTIPOINTS. Indicate the runway(s) number(s) or helipads the DP will serve.

6.2. INITIAL ROUTING FROM RUNWAY. AVN-100 specialist discretion unless ATC needs to specify the routing. In that case, enter the initial routing from runway end to the initial fix.

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 should be indicated. In extraordinary cases, when exact ground track is the primary concern in RNAV instrument departures, specify desired routing.

6.4. FIX(ES). Enter each fix in the order flown.

6.5. ATC REQUIRED ALTITUDES. Enter any altitude restrictions associated with each fix. In the absence of ATC imposed restrictions, the procedure developer will assume a minimum climb gradient of 200 feet per mile.

BLOCK 7. TRANSITIONS:

7.1. NAME(S)/COMPUTER CODES. Enter the proposed name and computer code of each transition. See block 3.

7.2. FIX(ES). See block 6.4.

7.3. ATC REQUIRED ALTITUDES. See block 6.5.

7.4. ATC OPERATIONAL PARAMETERS. See block 6.3.

BLOCK 8. SIMPLE 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.

BLOCK 9. REQUESTED PUBLICATION DATE OR AIRSPACE DOCKET NUMBER. Enter the desired date that coincides with the charting cycle. If there is not an operational requirement for a specific chart cycle, indicate "routine." If the DP request is in conjunction with an airspace action, indicate the docket number. The docket number may be obtained from the regional Airspace Branch (AXX-520). Order 8260.19, Section 5, Certification and Distribution of SIAP's, applies to "Required Effective Date."

BLOCK 10. REMARKS.

1. Indicate that the environmental review under Order 1050.1, Policies and Procedures for Considering Environmental Impacts, and the noise screening under Notice 7210.360, Noise Screening Procedures Criteria for Certain Air Traffic Actions Above 3,000 Feet, 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 paragraph 8 of the basic order, a statement of justification is necessary to explain why a graphically depicted DP is required. It is important that the publication of unnecessary graphically depicted DP's be avoided.
4. For RNAV DP's, a chart note must state, "FOR USE BY SLANT E, F, AND G EQUIPPED AIRCRAFT ONLY."
5. List specific lost communications instructions if other than 14 CFR Part 91.185 (standard).

BLOCK 11. POINT-OF-CONTACT (POC) (THE ATC FACILITY NAME, NAME OF POC, TELEPHONE NUMBER, E MAIL ADDRESS AND FAX NUMBER.) Self explanatory.

GRAPHIC DP REQUIREMENTS WORKSHEET

1. AIRPORT(S) _____

2. CITY AND STATE _____

3. DP NAME _____ COMPUTER CODE _____

4. ACTION REQUIRED: ESTABLISH ___ AMEND ___

5. TYPE: RNAV ___ NONRNAV ___ PILOT/NAV ___ VECTOR ___

6. ROUTE:

6.1. RUNWAY(S) _____ HELIPADS/VERTIPTS _____

6.2. INITIAL ROUTE FROM RUNWAY _____

6.3. ATC REQUESTED ROUTING/OPERATIONAL PARAMETERS _____

6.4. FIX(ES):

NAME _____ NAVAID _____ WP _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ WP _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ WP _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ WP _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ WP _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ WP _____ LAT/LONG _____ ALT _____

NAME _____ NAVAID _____ WP _____ LAT/LONG _____ ALT _____

6.5. ATC REQUIRED ALTITUDES: _____

7. TRANSITIONS:

7.1. NAME _____ COMPUTER CODE _____

GRAPHIC DP REQUIREMENTS WORKSHEET (Cont'd)

7.2 FIX(ES):

NAME_____NAVAID_____WP_____LAT/LONG_____ALT_____

NAME_____NAVAID_____WP_____LAT/LONG_____ALT_____

NAME_____NAVAID_____WP_____LAT/LONG_____ALT_____

NAME_____NAVAID_____WP_____LAT/LONG_____ALT_____

NAME_____NAVAID_____WP_____LAT/LONG_____ALT_____

NAME_____NAVAID_____WP_____LAT/LONG_____ALT_____

7.3. ATC REQUIRED ALTITUDES: _____

7.4. ATC OPERATIONAL PARAMETERS: _____

8. GRAPHIC DEPICTION.

9. REQUESTED PUBLICATION DATE OR AIRSPACE DOCKET NUMBER_____

10. REMARKS:

11. POINT OF ONTACT:_____

APPENDIX 4. 8260-2 DATA WORKSHEET

Instructions for completing 8260-2 Data Worksheet for proponents other than the NFPO.

BLOCK 1. REQUESTED PUBLICATION DATE OR AIRSPACE DOCKET NUMBER.

Enter the date that coincides with the charting cycle listed in Order 8260.26. Order 8260.19, Section 5, Certification and Distribution of SIAP's, applies. If there is not an urgent operational requirement for a specific charting cycle, indicate "routine." If the 8260-2 request is in conjunction with an airspace action, indicate the docket number. The docket number may be obtained from the regional Airspace Branch (AXX-520).

For 8260-2 requests associated with a instrument departure procedure (DP) or STAR request, allow at least 20 weeks lead time from the proposed charting date.

BLOCK 2. FIX NAME. Enter the 5-character pronounceable name obtained from ARTCC. Do not include "WP" as part of the name.

BLOCK 3. FIX TYPE. Indicate the type of fix; e.g. radar, WP (a geographical position), DME (fixes made up of a single radial/bearing and DME, or multiple DME's), VHF (fixes made up of 2 VOR radials), VHF/LF (fixes made up of a VOR radial and an NDB bearing). Indicate all combinations that make up the fix.

BLOCK 4. LOCATION. Latitude and longitude accurate to the hundredth of a second, e.g. 0.00 sec. and/or FRD.

BLOCK 5. TYPE OF ACTION REQUIRED. Establish, modify, or cancel the fix.

BLOCK 6. HOLDING. When holding is required, provide detailed holding instructions including altitude and speed (if other than standard).

BLOCK 7. CHARTING. Check appropriate blocks. Indicate required charting; i.e. terminal en route.

BLOCK 8. REMARKS. Other airports/procedures associated with fix (if known). Justify the requirement for other than routine processing and charting. Any other information that may assist in developing the fix.

BLOCK 9. POINT-OF-CONTACT (POC) (THE ATC FACILITY NAME, NAME OF POC, TELEPHONE NUMBER, FAX NUMBER AND E-MAIL ADDRESS). Self explanatory.

8260-2 Worksheet

1. Publication Date: _____
2. Fix Name: _____
3. Fix Type: _____
4. Location: _____
5. Type of Action Required: _____
6. Holding: _____
7. Charting: _____
8. Remarks (use additional paper if required):

9. Point of Contact (POC):

ATC Facility Name.

POC's Name.

Telephone Number.

FAX Number.

E-Mail Address.

APPENDIX 5

**USE AND COMPLETION OF FAA FORM 8260-15A, TAKEOFF MINIMUMS AND
TEXTUAL DEPARTURE PROCEDURES (DP)**

**USE AND COMPLETION OF FAA FORM 8260-15B, GRAPHIC DEPARTURE
PROCEDURE (DP) AND CONTINUATION SHEETS**

USE AND COMPLETION OF FAA FORM 8260-15C, DEPARTURE PROCEDURE

**INSTRUCTIONS FOR COMPLETING
FAA FORM 8260-15A**

PAGE 1 - TAKEOFF MINIMUMS AND TEXTUAL DEPARTURE PROCEDURES (DP)

See instructions in FAA Order 8260.19, paragraph 835.

PAGE 2 - TAKEOFF MINIMUMS AND TEXTUAL DEPARTURE PROCEDURES (DP)

Changes/Reasons - List changes and reasons relating to data entries on page 1.

U.S. DEPARTMENT of TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

TAKEOFF MINIMUMS AND TEXTUAL DEPARTURE PROCEDURES (DP)

Bearing, 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. Visibility are in statute miles or feet RVR unless otherwise indicated.

Coordinated with:

- ATA
 ALPA
 APA
 AOPA
 NBAA
 OTHER (specify) _____

TAKEOFF MINIMUMS:

TAKEOFF OBSTACLES:

TEXTUAL DP:

DP OBSTACLES:

FLIGHT INSPECTED BY		DEVELOPED BY		APPROVED BY	
Name:	Date:	Signature:	Date:	Signature:	Date:
City, State		Airport		Effective Date	Amnd. No.

--	--

Changes:

Reasons:

**INSTRUCTIONS FOR COMPLETING
FAA FORM 8260-15B****PAGE 1 - Graphic Departure Procedure (DP)**

TITLE LINE: Check "Pilot Nav" or "Vector" box as appropriate.

BLOCK (1a). DP ROUTE DESCRIPTION. Provide a textual description of the departure route. Include only information pertinent to the departure procedure.

BLOCK (1b). LOST COMMUNICATIONS PROCEDURES. Enter lost communications procedures, if required, to be included in the textual description. Leave blank when procedures are the same as in 14 CFR Part 91.185.

BLOCK (2). TRANSITION NAME/S. Name of each transition according to the name of the fix/NAVAID at the transition termination point. Refer to BLOCK 3b below.

BLOCK (3). TRANSITION ROUTES.

(a) **From Fix/NAVAID.** Fix/NAVAID where each transition begins.

(b) **To Fix/NAVAID.** Fix/NAVAID where each transition ends.

(c) **Via Transition Route.** Description of each transition route.

(d) **MEA. MEA along transition route.** By definition, this altitude also encompasses the MRA. If transitions share a common segment, make sure the MEA for that segment is the same for each transition.

(e) **DIST.** Enter distances between fixes on the transition route in miles and hundredths; e.g., 78.65NM. Charting agencies round as necessary to publish the information.

(f) **Transition Computer Codes.** Enter code as the first five characters from the computer code in BLOCK 11, followed by a dot "." and the 5-character name from BLOCK 2.

(g) **Crossing Altitudes/Fixes.** Enter any required crossing restrictions for each transition.

BLOCK (4). PROCEDURAL DATA NOTES. Enter any information that is to appear in note form on the graphic depiction; e.g., DME required, minimum climb rate information, etc.

BLOCK (5). COMMUNICATIONS. Enter name of radio communications to be charted; e.g., ATIS, AWOS, CTAF, clearance delivery, departure control, etc. Specify frequency only if different than what is currently published for the facility or unique to the procedure.

BLOCK (6). ADDITIONAL FLIGHT DATA. Any additional charting instructions. Any procedural data notes not to be charted may be added here by the NFPO or ARTCC for controller information.

BLOCK (7). FIXES AND/OR NAVAID'S. Enter only fixes or NAVAID's for which charting is requested that are not included in the textual description of the departure or transition route. Ensure that the accompanying FAA Forms 8260-2 contain appropriate charting instructions for holding patterns supporting the departure procedure.

BLOCK (8). AIRPORTS SERVED. List all airports, city, and 2-letter state code served by the departure procedure.

BLOCK (9). DP NAME. Enter name of departure procedure.

BLOCK (10). NUMBER. Enter departure procedure number (spelled out).

BLOCK (11). DP COMPUTER CODE. Enter computer identification code.

BLOCK (12). SUPERSEDED NO. Departure procedure number superseded by this procedure.

BLOCK (13). DATED. Date of superseded procedure.

BLOCK (14). EFFECTIVE DATE. Effective date of the new procedure (coordinated with NFDC).

PAGE 2 - Graphic Departure Procedure (DP)

BLOCK (15). GRAPHIC PORTRAYAL FOR CHARTING GUIDELINES. Include an up-to-date, clear graphic depiction of the procedure. Do not include a text write-up of transitions or departure route.

BLOCK (16). OTHER PERTINENT DATA. Use this space for additional comments to assist the charting agency.

PAGE 3 - Departure Procedure (DP) Data Record

BLOCKS (1) THROUGH (10). Instructions are preprinted on page 4 of this form.

PAGE 4 - Departure Procedure (DP) Data Record. Instructions for completing page 3.

GRAPHIC DEPARTURE PROCEDURE (DP) Check One: <input type="checkbox"/> Pilot Nav <input type="checkbox"/> Vector		1. Bearings, headings, courses, tracks, and radials are magnetic. 2. Distances are in nautical miles. 3. Altitudes are minimum altitudes unless otherwise indicated.	
(1a) DP Route Description:			
(1b) Lost Communication Procedures:			
(2) Transition Name/s:			
From (a) FIX/NAVAID	To (b) FIX/NAVAID	Via (c) Transition Route	(d) MEA (e) DIST (f) Transition Computer Codes (g) Crossing Altitudes/Fixes
(3) Transition Routes			
(4) Procedural Data Notes:			
(5) Communications:			
(6) Additional Flight Data:			
(7) Fixes and/or NAVAID's:			
(8) Airports Served			
Airport Name		City/State	
(9) DP Name		(10) Number	(11) DP Computer Code
		(12) Superseded No.	(13) Dated
			(14) Effective Date

<p>(15) Graphic Portrayal for Charting Guidelines:</p>	<p>(16) Other Pertinent Data:</p>
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Instructions for completing FAA Form 8260-15B, page 3, ID Data Record. (See other side)

BLOCK 1. FIX/NAVAID (OPR: Air Traffic)

Enter the name of the fix/NAVAID in one of the following formats: (1) 5-letter pronounceable name; (2) arinc-424; OR, (3) 3-letter facility ID and type (e.g., ABC VORTAC).

BLOCK 2. LAT/LONG (OPR: Proponent)

Enter the latitude and longitude, separated by a "slant(/)" to the nearest hundredth of a second. Label latitude as N or S; longitude as W or E.

BLOCK 3. C (Chart) (OPR: NFPO)

Enter a Y (yes) if a fix is to be charted. Enter a N (no) if a fix does not require charting. Any fix where a change in altitude, course, or speed, including WP's where turns or transitions begin and end, require charting.

BLOCK 4. FO/IB (OPR: Air Traffic/NFPO)

Enter FO (Fly-over) or IB (Fly-by) as appropriate to indicate desired use. FO is the normal designation. Determination is based on operational or obstacle requirements.

BLOCK 5. LEG TYPE (OPR: NFPO)

Enter the two-letter ARINC-424 code for leg type; e.g., IF, TF, RF.

BLOCK 6. TC (OPR: NFPO)

Enter the true course (TC) to the nearest hundredth of a degree. The charting agency will round for publication.

BLOCK 7. DIST (OPR: NFPO)

Enter the distance to the nearest hundredth of a NM. The charting agency will round for publication.

BLOCK 8. ALTITUDE (OPR: Air Traffic/NFPO)

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."

BLOCK 9. SPEED (OPR: Air Traffic/NFPO)

Enter 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.

BLOCK 10. REMARKS (OPR: Air Traffic/NFPO)

Enter any pertinent information that would clarify a data entry; e.g., airspeed restriction for turn radius.

**INSTRUCTIONS FOR COMPLETING
FAA FORM 8260-15C**

PAGE 1 - DEPARTURE PROCEDURE (Continuation Sheet)

Use this sheet to complete any data BLOCKS from previous pages. Indicate BLOCK numbers being continued.

Bottom Row. See instructions for BLOCKS (9) through (14). See page 8.

PAGE 2 - DEPARTURE PROCEDURE (Continuation Sheet)

Changes/Reasons - List changes and reasons for revising the procedure; e.g., relocation of NAVAID's, sector boundary, realignment of airways, addition of transition route, etc.

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION DEPARTURE PROCEDURE (Continuation Sheet)		1. Bearings, headings, courses, tracks, and routes are magnetic. 2. Distances are in nautical miles. 3. Altitudes are minimum altitudes unless otherwise indicated.	
Continuation: (indicate block numbers being continued)			
OP Name	Number	DP Computer Code	Superseded No.
			Dated
			Effective Date

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Changes:

Reasons:



U.S. Department
of Transportation

**Federal Aviation
Administration**

Directive Feedback Information

Please submit any written comments or recommendations 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:

To: Directive Management Officer, AFS-420
Flight Procedure Standards Branch
PO Box 25082
Oklahoma City, OK 73125

(Please check 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 directive, 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: _____

FTS Telephone Number: _____

Routing Symbol: _____