

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

8260.32C

7/7/99

SUBJ: U.S. AIR FORCE TERMINAL INSTRUMENT PROCEDURES SERVICE

- 1. PURPOSE.** This order provides guidance to all personnel in the administration of the Flight Procedures and Airspace Program. It defines responsibilities regarding terminal instrument procedure development service provided by the Federal Aviation Administration (FAA) to the United States Air Force (USAF) at domestic civil airports under Department of Transportation (DOT)/FAA Department of Defense (DOD)/USAF Memorandum of Agreement, effective July 7, 1978.
- 2. DISTRIBUTION.** This order is distributed in Washington headquarters to the Office of Chief Counsel (information only); to the branch level of the Air Traffic, Flight Standards, and Airway Facilities Services; to the Flight Technologies and Procedures Division, AFS-400; to the National Flight Procedures Office (NFPO), AVN-100, and Regulatory Standards Division, AMA-200, at the Mike Monroney Aeronautical Center; to the branch level in the Aeronautical Information Division, ATA-100; to the branch level in the Regional Flight Standards, Air Traffic and Airway Facilities Divisions; to all Flight Inspection Offices; the International Flight Inspection Office; and to the U.S. Air Force Flight Standards Agency/XOI.
- 3. CANCELLATION.** Order 8260.32B, U. S. Air Force Terminal Instrument Procedures Service, dated November 29, 1994, is canceled.
- 4. BACKGROUND.** FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS), (Air Force Joint Manual 11-226) paragraph 122, provides that where a military requirement has been established, a request for an instrument approach and/or departure procedure shall be approved if the minimum standards within that paragraph are met. Under TERPS, paragraph 130c, the military shall request the FAA to develop procedures to meet their requirements where existing FAA approach or departure procedures at civil airports do not suffice. These requirements may be met by modification of an existing FAA procedure or development of a new procedure. Military requirements must be compatible with airspace availability, navigational facilities, and air traffic requirements.
 - a. Order 8260.3, TERPS,** provides the basic criteria for developing instrument flight procedures. Additional guidance is contained in FAA Order 8260.19, Flight Procedures and Airspace, and in this order.

Distribution: A-W(GC)-1; A-W(AT/FS/AF)-3; AFS-400; AVN-100 (150 cys);
AMA-200 (80 cys); ATA-100 (15 cys); A-X(FS/AT/AF)-3; FFS-4;
USAF/XOI

Initiated by: AFS-420

b. Procedure services provided to the USAF by the FAA include development of original and amended high/low standard instrument approach procedures (SIAP's), departure procedures (DP's), criteria waivers for terminal procedures, and initiation of Flight Data Center (FDC) Notices to Airmen (NOTAM's) at domestic civil airports.

c. USAF procedures are charted by the National Imagery and Mapping Agency (NIMA), St. Louis, Missouri.

5. EXPLANATION OF CHANGES.

a. This revision clarifies titles of organizational elements and updates their relationships.

b. NOTAM responsibilities are revised and procedures more clearly detailed.

c. The requirement for the USAF Major Command (MAJCOM) to ensure currency of an FAA SIAP that NIMA obtains from NOS has been removed.

d. Adds the requirement that the MAJCOM TERPS Office will request publication of radar procedures and/or minimums in the NOS Flight Information Publication (FLIP) for those locations where USAF Air National Guard (ANG) controllers are providing air traffic control and radar services at civil locations to both civil and military aircraft.

e. Adds the requirement that the MAJCOM TERPS Office is responsible for notifying parent FAA approach control and ARTCC facilities of new/amended procedure effective dates.

f. Adds procedures for processing waivers for USAF procedures.

6. DEFINITIONS.

a. Domestic Civil Airport. An airport located in the United States or its territories that is open for public use, e.g., private airport open to the public, general aviation airports, commuter service airports, air carrier airports, and public-use airports. Military airports, including those open for public use, require separate agreements between the FAA and the USAF.

b. Flight Inspection Operations Division, AVN-200. The FAA office responsible for flight inspection of instrument procedures and navigation aids in support of the National Airspace System (NAS).

c. Flight Procedures Office (FPO). The regional element of AVN-100 responsible for initial processing of requests for instrument flight procedures development.

d. Headquarters Air Force Flight Standards Agency (AFFSA). The USAF office responsible for all program and policy matters related to instrument procedures matters and air traffic control services. It is also the focal point for all USAF instrument flight concerns including pilot procedures, instrument procedure design criteria, and TERPS program management.

e. High Altitude Instrument Procedure. A terminal instrument procedure that usually begins (approach) or ends (departure) at or above 18,000 feet mean sea level (FL 180). The beginning/ending altitude may be lower to achieve compatibility with airspace constraints and optimum traffic flows.

f. MAJCOM TERPS Office. Key coordination element for USAF requested and FAA developed instrument procedures at domestic civil airports.

g. National Flight Data Center (NFDC), ATA-110. The FAA headquarters office responsible for maintenance of the national aeronautical information data base and for the compilation, validation, and dissemination of aeronautical information relating to the NAS.

h. National Flight Procedures Office, AVN-100. The FAA office responsible for development, maintenance, quality control, and technical approval of public-use instrument procedures for the U.S. and its territories.

i. National Imagery and Mapping Agency (NIMA). The DOD aeronautical charting agency having primary responsibility for all military cartographic matters and aeronautical information products.

j. National Ocean Service (NOS). The Federal agency responsible for the charting of public use civil instrument flight procedures.

7. FORMS. Use the following FAA forms for U.S. Air Force procedures at domestic civil airports:

Form No.	Title
a. FAA Form 8260-1	Flight Procedures Standards Waiver.
b. FAA Form 8260-2	Radio Fix and Holding data Record.
c. FAA Form 8260-9	Standard Instrument Approach Procedure Data Record.
d. FAA Form 8260-11	U.S. Army ILS Standard Instrument Approach Procedure.
e. FAA Form 8260-12	U.S. Army Radar Standard Instrument Approach Procedure.
f. FAA Form 8260-13	U.S. Army Standard Instrument Approach Procedure.
g. FAA Form 8260-20	U.S. Army Standard Instrument Approach Procedure (Continuation Sheet).

8. PROCEDURES DEVELOPMENT.

a. **The MAJCOM TERPS Office** originates or endorses all requests to design, revise, or cancel Air Force instrument procedures at domestic civil airports and forwards the requests to the appropriate regional FPO (see appendix 1, Flight Procedures Offices). Requests for design or revision of a procedure must contain a general description of the procedure required and a rough sketch of the procedure plus telephone numbers and names of individuals who are expected to be involved in the coordination process. The FPO, after initial airspace analysis and coordination with Regional Air Traffic, Airports, and Airway Facilities Divisions, and the airport manager/sponsor/owner, forwards the request to the appropriate NFPO branch for technical development service. The developing branch coordinates with the MAJCOM TERPS Office (see appendix 2, U.S. Air Force Address Listing) and the regional FPO's.

b. **When Air Force needs can be met by an existing or amended FAA civil procedure.**

(1) **If an existing FAA SIAP** satisfies the USAF requirements without change, the MAJCOM TERPS Office shall request NIMA to publish the civil SIAP in the appropriate DOD FLIP. NIMA obtains procedure negatives from NOS under an existing agreement. The MAJCOM TERPS Office shall provide a courtesy copy of the NIMA publication request to the AVN-100 Branch responsible for maintaining the SIAP.

(2) **If an existing FAA civil SIAP** can be amended to satisfy the USAF requirement (addition of Category E minima, TACAN capability, etc.) without adversely affecting civil users, AVN-100 shall amend the SIAP for publication via normal FAA procedures, and notify the requesting MAJCOM TERPS Office. The MAJCOM TERPS Office will then request publication of the procedure in the NIMA FLIP per paragraph 8b(1). If Category E minimums are required, the developing branch will establish landing minimums for approach Categories A through D from TERPS table 9 or paragraph 343c; then establish Category E minimums from TERPS table 10 or paragraph 343d, but in no case will Category E minimums be established lower than Category D minimums.

(3) **If NIMA receives an updated version** of an FAA SIAP too late for publication in the current DOD FLIP, NIMA shall advise AFFSA OL-D of the appropriate military NOTAM action to be taken.

c. **When Air Force requirements are NOT met by an existing FAA civil procedure.**

(1) **AVN-100 designs a procedure** to satisfy USAF requirements while adhering to established directives with the following additional actions:

(a) **Procedures** may be combined as permitted by TERPS criteria.

(b) **At civil locations** where the USAF provides air traffic control/radar services, the MAJCOM TERPS Office will specify the need for publication of the procedure and/or minimums by FAA in the NOS FLIP. Examples are civil locations where USAF has installed precision

approach radar (PAR) and/or airport surveillance radar (ASR), and where civil aviation as well as the military will be provided radar services.

(c) Prepare applicable FAA Forms 8260-2/9/11/12/13/20 with the following modifications and emphasis:

1. Delete "ARMY" designation and substitute "AIR FORCE."
2. Indicate "NA" (not applicable) in the Alternate Minimums section. The USAF has regulations that cover alternate minimums.
3. Establish landing minimums for approach Categories A through D from TERPS table 9 or paragraph 343c; when required, establish Category E minimums from TERPS table 10 or paragraph 343d, but in no case lower than published Category D.
4. Publish a visual descent point (VDP), where criteria allows, on all approach procedures, including precision approaches which have corresponding nonprecision approaches overlaying them; e.g., ILS with localizer minimums.
5. Do not make reference to the inoperative component table. However, add a note to all procedures indicating the visibility increase required for inoperative approach lights; e.g., "When ALS inop, increase vis CAT ABD 1/2 mile, CAT C 1/4 mile."
6. Specify charting of any restricted areas which overlie or underlie procedure obstruction clearance areas and/or are within the depicted plan view of the procedure.
7. Enter city, state (use official two-letter abbreviation), and airport name as identified on civil records.
8. Assign "Original" to procedures originated by the FAA. Assign "Amdt 1" to procedures initially revised from Air Force procedural data. Assign subsequent amendment numbers sequentially. Do not assign an effective date.
9. On the reverse side of the forms, complete all appropriate blocks except "ENDORSED BY." Limit "CHANGES" and "REASONS" to the left half of the form to allow room for subsequent endorsements.

(d) Apply the following additional guidelines when developing high altitude SIAP's:

1. Preface all procedure titles with "HI-," i.e., "HI-TACAN RWY 31," "HI-ILS/DME RWY 31," etc.

2. Establish minimum safe/sector altitudes (MSA) as specified in TERPS paragraph 221. Establish an emergency safe altitude (ESA) within 100 miles of the navigation facility. Document ESA data on the same line following MSA; e.g., "ESA w/in 100 NM 10,800."

3. Use lines 1 and 2 on FAA Forms 8260-11/13 to clarify charting of high altitude teardrop procedures. Examples of correct entries are:

a. "Teardrop R-160 outbound RT at 5,000, R-186 inbound within 20 miles of ABC VORTAC (IAF)."

b. "Teardrop ABC R-016 outbound from NIXON 20 DME (IAF), LT at 11,000 within 43 miles of ABC VORTAC, R-358 inbound 4,000 ft to GORGY."

c. "Teardrop ABC R-115 outbound FL 200 to 10 DME, RT at 15,000 within 20 miles of ABC VORTAC, R-141 inbound 7,600 to 14 DME, 321.17 (I-XYZ) inbound 6,600 ft to 9 DME."

d. "R-072 inbound FL 200 to ABC VORTAC from NIXON 15 DME (IAF), R-252 outbound FL 200 to 12 DME, RT at 12,000 within 25 mi. of ABC VORTAC, R-278 inbound 5,500 ft to JIMMI 12 DME."

e. "R-072 inbound FL 200 ABC VORTAC from NIXON 15 DME (IAF), R-252 outbound FL 200 to ABC 12 DME, RT AT 12,000 within 25 mi. of ABC VORTAC, 098.34 (I-ABC) inbound 5,500 ft to JIMMI 12 DME (I-ABC)."

4. For feeder routes, document magnetic azimuth, distance, and MEA. Process an expanded service volume (ESV) if required.

5. Provide minimums for Categories C, D, and E only. Establish landing minimums for approach Categories C and D from TERPS table 9 or paragraph 343c; then establish Category E minimums from TERPS table 10 or paragraph 343d, but in no case lower than published Category D minimums.

(e) Coordinate flight inspection of the procedure. When flight inspection is complete, forward completed original/amended USAF procedures to the MAJCOM TERPS Office for processing. Distribute the completed forms within the FAA as specified in current orders and directives with the following additions and/or exceptions:

1. AVN-100 to MAJCOM TERPS Office: Applicable FAA 8260-series forms. Include a readable graphic (sketch or facsimile) with each new procedure or major revision. For minor changes, pen and ink notations to an existing approach plate are acceptable .

2. AVN-100 to NFDC: Original/amended FAA Form 8260-2 and one copy.

(f) AVN-100 shall coordinate with the MAJCOM TERPS Office to assure the military publication date is concurrent with the civil effective date, or appropriate NOTAM action taken. Compatibility with facility schedules, airspace activity, and the charting cycle will also be coordinated.

(2) The MAJCOM TERPS Office will:

(a) Handle additional processing for Air Force approval (coordinating signatures) and for charting in the DOD FLIP by NIMA (evaluate and enhance sketch/facsimile of procedure).

(b) Coordinate with the organization that originally requested the procedure to ensure user needs have been met.

(c) Modify the "installation commander" title and obtain the Operations Group Commander (or designated representative) coordination signature on the "ENDORSED BY" block on FAA Forms 8260-11/12/13.

(d) Maintain a record of all forms and data.

(e) Forward an electronic mail or hard-copy of all processing actions to AVN-100 and the regional FPO.

(f) Ensure that FAA air traffic control facilities (approach control and/or ARTCC(s)) are advised of new and/or amended procedure effective dates.

(g) Process procedure cancellation on FAA Forms 8260-2/11/12/13, routing as described in paragraph 8a.

(h) If procedure is "non-standard" (requires a waiver), additional processing is required under paragraph 10b.

d. AVN-100, when reviewing or amending civil procedures, will review and/or amend the USAF procedures at the same airport, including high altitude procedures.

9. DEPARTURE PROCEDURES. If a civil DP is in effect or in the development process, it should be sufficient for both civil and military operations and no additional USAF DP should be required. Additional DP requirements shall be forwarded by the MAJCOM TERPS Office to the appropriate regional FPO for coordination. The FPO coordinates DP requests and designs with Air Traffic, and forwards the DP package to AVN-100 for procedure development under Orders 8260.46, Instrument Departure Procedure (DP) Program, and 8260.19. Completed DP packages shall be returned to the requesting MAJCOM Office for USAF approval and NIMA publication.

10. WAIVERS.

a. If a civil waiver is in effect or in process for a specific situation inherent to similar civil and Air Force procedures, the civil waiver is sufficient and no additional Air Force waiver is required.

b. If a procedure is designed for the Air Force that does not conform with TERPS criteria, AVN-100 will complete the front side of FAA form 8260-1, Flight Procedures Standards Waiver, to accompany the original procedure. It will be annotated that approval of the waiver is requested prior to scheduling a flight inspection. AVN-100 shall then forward the complete procedure package, including all documentation and supporting data, to the MAJCOM TERPS Office for consideration. If the MAJCOM TERPS Office does not recommend approval, the procedure will be returned to AVN-100 with rationale and recommended action. If the MAJCOM TERPS Office recommends approval, the procedure will be forwarded to HQ AFFSA/XOIP for final approval/disapproval.

NOTE: AFFSA/XOIP may withhold final waiver approval contingent on flight inspection results/comments. If this occurs, AFFSA/XOIP shall notify AVN-100 and the MAJCOM TERPS Office of requested action.

11. **NOTAM's.** When issuing a NOTAM for an existing civil instrument procedure, AVN-100 shall review USAF procedures at the same airport. If the USAF procedure also requires a NOTAM, issue a **SEPARATE** FDC NOTAM through NFDC for the USAF procedure. If it is a FLIP (Flight Information/ Permanent) NOTAM, amending the SIAP, AVN-100 shall also provide the appropriate MAJCOM notice of the changes required and inform them that NOTAM action has been taken. The MAJCOM will take action to ensure that the NIMA Mapping and Charting Branch receives the change and incorporates it into the next FLIP cycle

NOTE: When the FLIP NOTAM method is used, the amendment number on the procedure will not change, however, a suffix will be added for tracking purposes; i.e., Amdt 7a, Amdt 33b, etc.

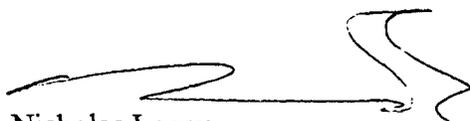
When the revised procedure has been published in the DOD FLIP, it will be reviewed for correctness by AVN-100. Once assured that the procedure is published correctly, AVN-100 shall cancel the applicable NOTAM(s) through NFDC. If charting errors were detected during the review process, AVN-100 shall notify the appropriate MAJCOM TERPS Office. Where the error is limited to military charts, the MAJCOM TERPS Office shall notify NIMA with the required changes. Where the error is caused by civil charting, incorrect forms, or the P-NOTAM, AVN-100 shall take appropriate corrective action.

12. **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, is included at the end of this order for your convenience. If an interpretation is needed immediately, you may call the originating office for guidance. However, you should also use the 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.



L. Nicholas Lacey
Director, Flight Standards Service

APPENDIX 1. FLIGHT PROCEDURE OFFICES

ADDRESS	AREA
National Flight Procedures Office, AVN-100 P.O. Box 25082 Oklahoma City, OK 73125 Commercial: 405-954-3027 FAX: 405-954-4236	World wide
Anchorage Flight Procedures Office, ANC-FPO 222 West 7 th Avenue, #14 Anchorage, AK 99533 Commercial: 907-271-5220 FAX: 907-271-2061	AK
Atlanta Flight Procedures Office, ATL-FPO P.O. Box 20636 Atlanta, GA 30320 Commercial: 404-305-6036 FAX: 404-305-6043	AL, FL, GA, KY MS, NC, PR, SC TN, VI
Boston Flight Procedures Office, BOS-FPO 12 New England Executive Park Burlington, MA 01803 Commercial: 781-238-7220 FAX: 781-238-7237	CT, MA, ME, NH RI, VT
Chicago Flight Procedures Office, CHI-FPO 2300 E. Devon Avenue Des Plaines, IL 60018 Commercial: 847-294-7142 FAX: 847-294-7142	IL, IN, MI, MN ND, OH, SD, WI
Fort Worth Flight Procedures Office, FTW-FPO 2601 Meacham Blvd. Fort Worth, TX 76137-4298 Commercial: 817-222-4133 FAX: 817-222-5227	AR, LA, NM, OK TX
Los Angeles Flight Procedures Office, LAX-FPO P.O. Box 92007 Worldway Postal Center Los Angeles, CA 90009 Commercial: 310-725-7122 FAX: 310-643-9753	AZ, CA, HI, NV

Kansas City Flight Procedures Office, MKC-FPO
601 East 12th Street
Federal Building
Kansas City, MO 64106
Commercial: 816-426-3297
FAX: 816-426-7816

IA, KS, MO, NE

New York Flight Procedures Office, NYC-FPO
Fitzgerald Federal Building
J.F. Kennedy International Airport
Jamaica, NY 11430
Commercial: 718-977-6525
FAX: 718-341-4749

DC, DE, MD, NJ
NY, PA, VA, WV

Seattle Flight Procedures Office, SEA-FPO
1601 Lind Avenue, S.W.
Renton, WA 98055-4056
Commercial: 425-227-2222
FAX: 425-227-2269

CO, ID, MT, OR
UT, WA, WY

APPENDIX 2. U.S. AIR FORCE ADDRESS LISTING

Address	Phone Numbers
HQ Air Force Flight Standards Agency (AFFSA)/XOI 1535 Command Drive Suite D-303 Andrews AFB, MD 20762-7002	Commercial: 240-857-2118 DSN: 857-2118 FAX: Com 240-857-7996 DSN 857-7996
HQ Air Combat Command (ACC)/DORO 205 Dodd Blvd, Suite F 101 Langley AFB, VA 23665-2789	Commercial: 757-764-7026 DSN: 574-7026 FAX: Com 757-764-2295 DSN 574-2295
HQ Air Education & Training Command (AETC)/AOS/AOF 1 F Street, Suite 2 Randolph AFB, TX 78150-4325	Commercial: 210-652-5756 DSN: 487-5756 FAX: Com 210-652-3377 DSN 487-3377
HQ Air Force Materiel Command (AFMC)/DOAA Bldg. 266, Rm. S132 4225 Logistic Ave. Wright-Patterson AFB, OH 45433-5740	Commercial: 937-656-0060 DSN: 986-0060 FAX: Com 937-656-1246 DSN 986-1246
HQ Air Mobility Command (AMC)/DOAT 402 Scott Dr., Unit 3AI Scott AFB, IL 62225-5302	Commercial: 618-256-3958 DSN: 576-3958 FAX: Com 618-256-2702 DSN 576-2702
HQ Air National Guard (ANG)/DOBA Hangar 909, Room 204 19210 E. Breckenridge Ave. Stop 32 Buckley ANGB, Aurora, CO 80011-9525	Commercial: 303-677-9733 DSN: 877-9733 FAX: Com 303-677-6061 DSN 877-6061
Pacific Air Forces (PACAF) AOS/AOOT 900 Hangar Ave Hickam AFB, HI 96853-5246	Commercial: 808-448-2634 DSN: 448-2634 FAX: Com 808-448-0177 DSN 448-0177

Address	Phone Numbers
24th AOS/AOI Unit 5197 APO AE 09094-5197	Commercial: (49) 6371-47-7024 DSN: 314-480-7024 FAX: Com (49) 6371-47-9816 DSN 314-480-9816
HQ AMC AOS/OL-J 7803 Hillsborough Loop MacDill AFB, FL 33621-5413	Commercial: (813) 828-9074 DSN: 968-9021/9044 FAX: Com 813-828-9021 DSN 968-9035
HQ Air Force Reserve Command (AFRC)/DONA 155 2 nd Street Robins AFB, GA 31098-1635	Commercial: 912-327-0303 DSN: 497-0303 FAX: Com (912) 327-0308 DSN 497-0308
National Imagery and Mapping Agency (NIMA)/GIMA 3200 S. 2 nd Street Stop L-27 St. Louis, MO 63118-3399	Commercial: (314)-263-4646 DSN: 693-4646 FAX: Com 324-263-4247 DSN 693-4247

Military NOTAM Agency

HQ Air Force Flight Standards Agency (AFFSA)/OL-D 3200 S. 2 nd Street Stop L-27 St. Louis, MO 63118-3399	Commercial 314-263-8041/42 DSN: 693-8041/42 FAX: Com 314-263-8043 DSN 693-8043
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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: Order 8260.32C, U.S. Air Force Terminal Instrument Procedures Service

To: DOT/FAA
ATTN: Flight Procedure Standards Branch, AFS-420
P.O. 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: _____