

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8400.80

4/6/05

Cancellation
Date: 4/6/06

SUBJ: SPECIAL INSTRUMENT APPROACH AND ENGINE-OUT MISSED APPROACH PROCEDURES

1. PURPOSE. This notice clarifies the relationship of special instrument approach procedures, associated engine inoperative missed approach procedures (if applicable), and the Principal Operations Inspector's (POI) responsibility in the review and approval process of such procedures.

2. DISTRIBUTION. This notice is distributed to the division level in the Flight Standards Service in Washington headquarters; to the branch level in the regional Flight Standards divisions; to the Flight Standards District Offices, and to the Regulatory Standards Division at the Mike Monroney Aeronautical Center. This notice is also distributed electronically to the division level in the Flight Standards Service in Washington headquarters and to all regional Flight Standards divisions and district offices. This information is also available on the Federal Aviation Administration's (FAA) Web site at:

<http://www.faa.gov/avr/afs/notices/8400/N8400-80.doc>.

3. BACKGROUND.

a. Recently, there has been a lack of uniformity in the authorizations for operators to use special instrument approach procedures (IAP). Some operators have been authorized to use special approach procedures while other operators, operating the same type of aircraft having the same performance capability, have been denied the same procedures. Many of these special IAP are not eligible as Title 14 of the Code of Federal Regulations (14 CFR) part 97 public procedures because the missed approach procedure requires a higher climb gradient than what is acceptable under the U.S. Standard for Terminal Instrument Procedures (TERPS) criteria for a public procedure. Because of the higher missed approach climb gradients, many operators have developed emergency engine inoperative missed approach procedures that differ from the special IAP missed approach procedure. Engine inoperative extraction procedures are not required to follow TERPS guidelines nor are the airlines even required to develop such procedures under 14 CFR.

b. Some of the recent denials for operators to use a particular special IAP have been based on mixing the normal missed approach requirements of the special IAP, with the non-regulatory emergency engine inoperative missed approach/extraction procedure. In particular, some operators have been wrongly required to present evidence that their aircraft could comply with the climb gradient requirements of the special IAP with an engine inoperative. Other operators have been wrongly denied the use of special IAPs because the engine inoperative procedures were not accepted.

4. ACTION. POIs should consider requests for special IAP and engine inoperative (emergency) missed approach procedures as two distinctly separate elements. A special IAP does not require an engine inoperative missed approach/extraction procedure for approval. Although normally submitted together in one package there is no regulatory requirement for an operator to develop an engine inoperative missed approach procedures when asking for approval of a special IAP. When a POI reviews the special IAP, the POI should verify that the proposed aircraft can meet the performance requirements under all “normal” operating conditions and the operator has properly documented the procedure as outlined in the 8260-7 and –10. Operators may elect to combine both procedures on one approach plate provided it is clearly stated that under normal operating conditions, the published missed approach must be flown and that only when operating in an emergency condition should the engine inoperative procedure be considered.

a. When approving a special IAP, the POI should verify the operator has in place the required training and operational requirements identified on FAA Form 8260-7 and –10. The operator need only comply with the operational requirements identified on FAA Form 8260 when the aircraft is operating in its normal condition, i.e., all engines operating. For example, if the FAA Form 8260 requires a climb gradient of 500 feet/nautical mile, this climb requirement should only be evaluated for the aircraft with all engines operating and not be considered as a threshold for the aircraft to meet with an engine inoperative. Likewise, it is the responsibility of the operator to ensure that the aircraft does not conduct the special IAP at a weight and/or temperature that would not permit the aircraft to meet the climb gradient requirements, under normal operational conditions, as specified on FAA Form 8260. The aircraft need not meet the climb gradient requirements of a special IAP at all operating weights and temperatures provided the operator has procedures to limit special IAP when such conditions exists that would prevent the aircraft from achieving the specified performance requirements.

b. Although not a regulatory requirement, operators should be encouraged to develop engine inoperative missed approach procedures for all IAPs for which the aircraft would not be able to comply with the climb gradient performance requirements of the normal published missed approach procedures with an engine inoperative. While also not regulatory, when a special climb gradient is specified on an engine-inoperative missed approach procedure, operators should be encouraged to provide a table on the special approach plate that provides the equivalent rate of climb requirements based on an assumed groundspeed the aircraft is likely to achieve when operating with an engine inoperative. These procedures, if developed, only require POI acceptance. Operators with engineering departments may request from their POI acceptance of their special engine inoperative/extraction procedure development process in order to eliminate the acceptance of each special procedure.

c. It is the responsibility of the operator to ensure that, for any engine inoperative missed approach procedures developed for use within their operation, sufficient performance engineering studies have been developed to verify the procedure provides adequate obstacle clearance throughout the procedure. When developing emergency engine inoperative extraction procedures, operators may be limited to flight paths that would only allow for obstacle avoidance until sufficient altitude is achieved to land at the airport or fly to an alternate airport as required by the type of emergency. It should be remembered that the typical TERPS obstacle clearance

requirements are not required to be met when an aircraft is being operated in an emergency condition. Operators should submit to the POI summarized performance data for his/her review. The POI's acceptance of the engine inoperative (emergency) missed approach procedure should be based in part on his level of confidence in the operator's engine inoperative performance data. The operators' policies, procedures, and training for the utilization of engine inoperative missed approach procedures should be reviewed as part of this acceptance process.

d. POIs should review the background and content of this notice and should make that information known to key officers, as follows:

(1) For a certificate holder under 14 CFR part 121: POI contacts the director of safety.

(2) For a certificate holder under part 135: POI contacts director of operations.

(3) For an operator of a fractional ownership program under part 91, subpart K: POI contacts the program manager.

e. A POI may convey a copy of this notice to the appropriate person in the form of hardcopy, or may refer that person to the FAA's public Web site where this notice may be downloaded at no cost: <http://www.faa.gov/avr/afs/notices/index.cfm>

NOTE: The safety message contained in this notice is being made known to part 91 operators other than those under part 91, subpart K (fractional ownership programs) by way of their trade associations' newsletters and public Web sites.

5. TRACKING. Document the conveyance of the information contained in this notice for each air carrier or fractional ownership program affected:

a. Use Program Tracking and Reporting Subsystem (PTRS) code 1030, Convey Non-Reg. Info.

b. Enter "N840080" in the "National Use" field (without the quotes).

c. Once the above information has been provided to the operator's representative, as appropriate, close out the PTRS.

6. DISPOSITION. This notice will be incorporated into Order 8400.10, Air Transportation Operations Inspector's Handbook. Questions concerning this notice should be directed to the Air Carrier Operations Branch, AFS-220, at (202) 267-8166.

/s/ John M. Allen, for
James J. Ballough
Director, Flight Standards Service