U.S. Department of Transportation
Federal Aviation Administration

Advisory Circular

SUBJECT: Foreign Terminal Instrument Procedures (FTIP) Acceptance/Review Process

Date: 11/19/2010

Initiated by: AFS-460

AC No: 120-105

1. Purpose. This advisory circular (AC) establishes guidelines for United States operators to use when reviewing Foreign Terminal Instrument Procedures (FTIP). Occasionally, the word "must" or similar language is used where the desired action is deemed critical. The use of such language is not intended to add to, interpret, or relieve a duty imposed by Title 14 of the Code of Federal Regulations (14 CFR).

2. Definitions.

a. Controlling Region. The Federal Aviation Administration (FAA) regional office with an assigned international jurisdiction that is responsible for the surveillance and inspection of foreign airports associated FTIPs, including instrument landing system (ILS) Category (CAT) II and III approaches, at those airports used by United States certificate holders. The Regional Flight Standards Division - All Weather Operations Program Manager (RFSD-AWOPM) is the program focal point within the controlling region. Location responsibilities are divided into:

(1) Alaskan Region (AAL-200) is responsible for the Yukon Territories, Northwest Territories, and British Columbia north of 52 degrees north latitude, Nunavut west of 100 degrees west longitude, and the Russian Federation and Commonwealth of Independent States. Northwest Mountain Region (ANM-200) is responsible for Alberta, Saskatchewan, and British Columbia south of 52 degrees north latitude.

(2) Eastern Region (AEA-200) is responsible for east of 100 degrees west longitude and Europe, Africa, Middle East, and India, except for the Russian Federation and Commonwealth of Independent states.

(3) Southern Region (ASO-200) is responsible for the Caribbean and Central and South America.

(4) Southwest Region (ASW-200) is responsible for Mexico.

(5) Western-Pacific Region (AWP-200) is responsible for Asia, the Pacific Basin, Australia, and New Zealand.

Note: The certificate-holding region, certificate management office (CMO), may not be in the same controlling region that has responsibility for the country that will be operated in. Therefore, the applicable controlling region (as defined above) is responsible for providing the status of a country under their jurisdiction.

b. Criteria. International Civil Aviation Organization (ICAO) PANS-OPS Document 8168-OPS/611, Procedures for Air Navigation Services - Aircraft Operations, volume II, or FAA Order 8260.31, Foreign Terminal Instrument Procedures. Additionally, Canadian Criteria for Development of Instrument Procedures or North Atlantic Treaty Organization (NATO) Allied Air Traffic Control Publication development criteria are acceptable. United States Terminal Instrument Procedures (TERPS) criteria mean Order 8260.3 and all Title 14 Code of Federal Regulations (14 CFR), orders, ACs and notices that are applicable to TERPs. ICAO PANS-OPS criteria do not include visibility minima; therefore, the certificate holder should determine the specific visibility minima for a specific procedure using United States TERPS or European Joint Aviation Authority (JAA) criteria.

c. Foreign Terminal Instrument Procedures. These include instrument approach and departure procedures developed and published for use in foreign nations using criteria as stated in paragraph 3b.

d. Certificate Management Office. The FAA office responsible for the Air Carrier Certificate, the operations specifications (OpSpecs), and the regular inspection and surveillance of a United States certificate holder.

e. Certificate-Holding Region. The FAA region associated with the CMO responsible for a particular certificate.

f. Certificate Holder. A United States air carrier or operator, operating under 14 CFR Part 91 subparts K, 121, 125, or 135, who holds either an air carrier certificate or an operating certificate. FTIP review actions performed by a contractor/consultant while employed by a certificate holder are considered to be actions of the certificate holder.

g. ICAO Member Nation. A nation that has been identified by ICAO as a “contracting state.” This information is available from the ICAO Web site at: http://www.icao.int. All ICAO countries and the ICAO airports within each country are listed on http://www.worldaerodata.com/countries.

h. International Field Office (IFO). A Flight Standards office involved in handling international airport operations issues and surveillance of foreign air carriers under 14 CFR Part 129.

i. Special Administrative Region (SAR). A location that is not a contracting state but has its own Aeronautical Information Publication (AIP) and can be afforded the same accreditation status, as would an ICAO member nation. An example of a SAR location is Macau under their association with China.

3. Related References (current editions).

a. FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).

b. FAA Order 8260.19, Flight Procedures and Airspace.

c. FAA Order 8260.31, Foreign Terminal Instrument Procedures.

d. International Civil Aviation Organization Procedures for Air Navigation Services-Aircraft Operations (ICAO PANS-OPS) Document 8168-OPS/611, Procedures for Air Navigation Services - Aircraft Operations, volume II.

4. Background.

a. FAA Order 8900.1, Flight Standards Information Management System, provides information to principal operations inspectors (POI) on air carrier use of foreign government instrument procedures. FAA Order 8260.31 provides direction and guidance for acceptance, review, and/or restricting foreign instrument procedures. The majority of instrument procedure development activities outside the United States and its territories use ICAO DOC 8168, volume II, criteria for procedure development.

b. It may be necessary to restrict or deny use of certain FTIPs because of variations in application of, and adherence to, criteria by individual nations. To maintain flight safety, denial or restrictions to use certain FTIPs are identified through review of each procedure individually, or through an assessment of the entire Civil Aviation Authority (CAA) and AIP of a given ICAO member nation. The FAA will continue to promote stronger processes within ICAO to ensure that the individual contracting states meet ICAO quality standards for instrument procedure design and maintenance.

5. FAA Policy and Objectives.

a. The FAA controlling region may review the CAA function, the AIP process, and the FTIP development process, based on the ability of an ICAO member nation CAA to:

(1) Perform FTIP development with a level of criteria compliance equal to that performed by FAA developers for the National Aerospace System (NAS), or

(2) Provide adequate oversight of contracted development activities that match FAA development standards to ensure compliance with criteria, and

(3) Produce an AIP that complies with ICAO Annex 15 Standards and Recommended Practices (SARPs), and

(4) Have a Notice to Airmen (NOTAM) system, obstacle, navigational aid (NAVAID), and airport data that meets current international standards, including all locations of obstacle, NAVAID, and airport data referenced to an appropriate international standard that supports satellite navigation, such as the Geodetic Reference System (GRS)-80 datum, World Geodetic System (WGS)-84, or equivalent.

(5) Those nations/airports deemed acceptable for instrument procedure use without review are listed on the Flight Standards Service Flight Operations Branch (AFS-410) Web site. A sample is provided in appendix C. Instrument procedures contained in the AIP of these nations are deemed compliant with criteria, and are accepted for use without individual review; therefore, certificate holders are not required to accomplish an in-depth (appendix A) assessment

of each instrument procedure prior to use. The controlling region may accept a member nation based on the approval of FAA Flight Standards Flight Procedure Implementation and Oversight Branch (AFS-460).

b. An ICAO member nation that is not deemed fully compliant must have their instrument procedures reviewed prior to use. These nations may have known deficiencies in their procedure development practices, improperly maintained CAA/AIP documents, or have not been assessed in accordance with paragraph 6a. In these instances, the United States certificate holder has the responsibility for reviewing those nonprecision and CAT I FTIPs that they intend to use (refer to paragraph 7). Known deficiencies of a particular ICAO member nation will be posted in the International Flight Information Manual (IFIM) and on the AFS-410 Web site.

c. A FTIP developed by a non-ICAO member nation must be reviewed in the same manner as a non-compliant ICAO member nation procedure as described in paragraph 7 and submitted through their POI to the certificate holding region for approval.

d. FTIPs are normally obtained from a host nation AIP; however, some nations maintain up-to-date procedures by NOTAMs and/or a reliable and regular correspondence with the charting agencies or services used by United States certificate holders. FTIPs provided in this manner should be given the same consideration as those contained in an AIP.

Note: A commercially produced chart does not ensure compliance with criteria, or suitability for use, by an individual certificate holder.

e. Instrument procedures for territories published in the contracting state's AIP must be considered to have the same level of compliance as the contracting state.

6. Responsibilities. The certificate holder is responsible for evaluating FTIPs that are in countries that are not deemed acceptable by the FAA. Refer to paragraph 5 to determine if a review is necessary. Appendix A is for evaluating instrument approach/ departure procedures. The procedure review when required as specified in paragraph 5, must consist of a general obstacle evaluation (OE) and assurance that the procedure is suitable for use by the type of aircraft that will be using the FTIP (refer to § 121.97). The certificate holder's proposed evaluation methodology to be used in their review process will include those items listed in appendix A. The POI, with the assistance of the RSFD-AWOPM, will determine the suitability of the proposed methodology. If sufficient data is not available to conduct a satisfactory evaluation or the United States certificate holder/operator cannot conduct the evaluation, they must notify the POI that the procedure will not be used until a proper assessment is completed.

Note: It is not the intent of the FAA to have the certificate holder perform a compliance evaluation to determine if TERPS or ICAO PANS-OPS criteria have been applied properly to each instrument procedure.

a. Part C of OpSpecs reflects the lowest landing minimums that can be authorized. A procedure may require higher minimums when deviations from criteria are detected. In addition, the following applies:

(1) When a host nation's approach procedure does not contain landing minimums, the published obstacle clearance altitude (OCA)/obstacle clearance height (OCH) must become the decision altitude height (DAH)/minimum descent altitude (MDA). An MDA is rounded up to the next higher 20-ft increment. Visibility must be determined using United States TERPS criteria, the exception being JAA minima criteria, where required by the host nation. The resultant minimums must not be lower than authorized in the OpSpecs. The certificate holder is responsible for assuring compliance with TERPS/JAA visibility criteria. This does not preclude the use of a charting service/contractor to calculate and publish visibility values for the certificate holder.

Note: The Controlling Region (RFSD-AWOPM, FPO) may be contacted to assist in establishing the correct visibility minimums.

(2) When an approach procedure contains visibility values published by the host nation, a United States certificate holder/operator may use those visibility values provided:

(a) The visibility values are not lower than those authorized in OpSpecs.

(b) The descent gradient in the final approach segment does not exceed the maximum allowed by criteria or limits specified in the Aircraft Flight Manual (AFM).

(3) Landing minima values (for example, MDA and visibility) must be expressed in the same terminology used in the foreign country when broadcasting the weather to pilots (meters, feet, nautical miles (NM), etc.).

b. Modifications of FTIPs require the concurrence of the host nation; however, emergency safety-of-flight restrictions should not be delayed pending coordination with the host nation.

c. The certificate holder will submit the FTIP to the POI for approval. The procedure will be considered and authorized by the POI for the certificate holder's use. The FAA controlling region, CMO, and/or other FAA offices are not required to make initial or periodic reviews of procedures developed by ICAO member nations. Each air carrier/operator is responsible for ensuring that the FTIP they are using is current and meets the requirements of the standards under which they are authorized to operate.

Note: FTIP approvals already processed for other operators will be listed on the AFS-410 Web site. These approvals do not constitute authorization for other operators not identified on the list to use the procedure without their POIs approval. It is recommended that operators needing approval of these listed procedures contact the approving POI, RFSD-AWOPM, and/or operator to obtain assistance and prevent a duplication of effort.

7. FTIP Developed by the Certificate Holder. A United States certificate holder may need to develop an FTIP. The following actions must be accomplished: (refer to appendix B).

a. Obtain authorization to develop an instrument procedure from the host nation and inform them of potential users to determine if it will be limited to specific users. The IFO will provide assistance in coordinating with the host nation.

b. Establish a reliable and timely method of obtaining current aeronautical information from the host nation. This could be an agreement that includes phone contact, e-mail/messages, courier service, and/or special distribution of AIP data. FTIPs require continuous monitoring and maintenance of the procedure to assure that it is current and safe. The proponent is responsible for ensuring these maintenance aspects are performed.

c. Use either ICAO or United States criteria to develop the procedure as agreed upon with the host nation. United States TERPS criteria will be used to establish landing minimums unless the host nation or air carrier requires otherwise.

d. Document procedure development using FAA 8260-series forms as prescribed by FAA Order 8260.19 including appropriately scaled maps defining controlling obstacles within each segment of the procedure.

e. Conduct a flight inspection of the procedure either by the FAA or as agreed upon with the host nation.

f. Publication of the procedure must be agreed upon with the host nation. Procedures not published in the host nation AIP must be treated as "special" procedures and governed by the controlling RFSD-AWOPM. FTIPs not included in the host nation AIP require establishment of a NOTAM process, ongoing maintenance including periodic inspection, and an obstruction evaluation method provided by the proponent (refer to paragraph 8g).

g. The certificate holder/proponent must provide the controlling region a copy of the procedure for distribution to United States certificate holders/operators that have requested it and/or by agreement to those that have a special need for it. The POI is responsible for approving the use of the procedure by the air carrier under his/her jurisdiction. AFS-410 and all regional Flight Standards divisions (RFSD) must be provided a copy for informational purposes, annotated "NOT FOR DISTRIBUTION." Provide amendments or cancellations in the same manner. The controlling RFSD-AWOPM will maintain control of procedures developed by the carrier and ensures that those authorized to use them receive updates in a timely manner.

Note: Instrument procedures to locations not under United States jurisdiction and developed by the certificate holder at their expense are considered proprietary and must not be issued to other certificate holders without the approval of the certificate holder that developed the procedure.

8. Aviation System Standards (AJW-3) FTIP Services and Flight Inspection Services. The Aviation System Standards Office may perform FTIP and Flight Inspection Services (FIS) under reimbursable agreement with the host nation. The host nation must contact the FAA Office of International Aviation, AIA-1, to determine the level of support available and the financial arrangements. The Aviation System Standards Office offers the following FTIP and FIS:

a. FTIP development, design, and maintenance in accordance with United States Standard TERPS.

b. FIS include initial commissioning of the procedure and periodic flight inspections as required by the host nation or United States Standard Flight Inspection Manual.

c. The Aviation System Standards Office is available to assist the POI and/or RFSD-AWOPM as a technical source to provide guidance and interpretation on TERPS criteria application and flight inspection procedural matters. The POI should begin by contacting the RFSD-AWOPM to request support. If the RFSD-AWOPM deems it necessary, the applicable Air Traffic Service Area Aviation System Standards Flight Procedures Office (FPO) will be contacted for assistance.

Note: The Aviation System Standards Office does not verify foreign data integrity, survey data, or NOTAM capability.

9. Surveillance and Feedback. This AC presumes that FTIPs developed to locations within an ICAO member nation that have been deemed fully compliant in accordance with paragraph 6, are in compliance with criteria, appropriately maintained and; therefore, do not require the certificate holder to perform an initial or periodic review. However, the continued use of any FTIP is viable as long as opportunities to observe the suitability for use are taken as they occur. Pilots of the certificate holder, aviation safety inspectors who conduct periodic surveillance of foreign airports used by United States certificate holders, and Flight Standards personnel making in-flight observations during operations into those airports, are in a position to observe the airport's approach and departure environment and can provide feedback. These pilots and inspectors are a valuable source of information for the controlling region regarding safety-of-flight discrepancies. Additionally, when the certificate holder detects or is informed of discrepancies affecting safe use of an FTIP, immediate steps must be taken to mitigate any adverse potential and the POI must be notified. The POI will then contact the controlling region to initiate a permanent corrective action. In cases where the controlling region RFSD-AWOPM does not have adequate information about the member nation CAA/AIP, and the need to determine accreditation supports agency or cabinet level program objectives, the RFSD-AWOPM may perform an on-site evaluation, or accept a written evaluation that addresses the specific items concerned signed by a competent authority acceptable to the RFSD-AWOPM.

10. FTIP Deviations from Criteria. Even though a country is an ICAO member nation, it may not fully comply with all ICAO technical manuals. ICAO Annex 15 directs ICAO member nations to identify in their AIP all exceptions to ICAO SARPs. However, ICAO PANS-OPS Document 8168-OPS/611 does not carry the same status as SARPS and does not come within the obligation imposed by Article 38 of the ICAO Convention to notify differences in the event of non-implementation. Although not required, some countries do provide this information in their AIP and when such exceptions are encountered, the controlling region should be contacted to determine if the exception is acceptable, and is listed as an element that requires review in the case of a nation that has not been deemed compliant. If the certificate holder detects or is informed of discrepancies in the procedure review process, the POI must be notified. The POI will then contact the controlling RFSD-AWOPM as soon as possible. When a possible discrepancy or safety-of-flight problem has been identified, the affected FTIP will be evaluated by the controlling region and United States certificate holders will determine whether to permit continued use of the FTIP.

11. Required Navigation Performance (RNP) Instrument Procedures. RNP instrument approach procedures are now being developed in foreign countries that may be designated as "Special Aircrew and Aircraft Certification Required (SAAAR)" (United States terminology) or

"Authorization Required (AR)" (ICAO terminology). Some countries may have RNP instrument approach procedures that do not have either designation. Due to the reduced obstacle protection areas permitted when using RNP equipment, there may be a need to provide specific operational and/or training requirements to users to ensure flight safety. All RNP FTIPs must be reviewed and approved by AFS-400 prior to POI/FSDO issuance to an operator. Use the process flow in appendix B for all RNP FTIPs.

12. Comments Invited. Direct comments regarding this AC to:

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Appendix A. Checklist for Use of Foreign Terminal Instrument Procedures

1. General. If the country's/airport's instrument procedures have not been deemed acceptable for use without a review (refer to paragraph 4), conduct a review of each instrument procedure in accordance with this AC using this checklist as a guide.

a. The areas listed in the checklist below are used to determine critical areas that may require operational restrictions. When anomalies are discovered, determine if/what action is necessary to compensate. It also may be necessary to establish special training or qualification for specific situations discovered in the review or as a result of any issues identified from adverse "service experience" with the procedure.

b. Review the FAA IFIM and NOTAM-Domestic/International for potential concerns that may discourage use/acceptance. The following format is recommended when documenting a review:

(1) **Location.** Airport name, country, and four-letter ICAO identification.

(2) **Procedure.** Identification of procedure exactly as the country has it published.

(3) **Review Date.** Date review accomplished.

(4) **Reviewer.** Name.

2. Source and Source Date. Identify the product source (e.g., AIP) reviewed and the date on the source material.

3. Suitability of Ground Systems/Equipment. Ensure airport lighting, transmissometers, and other items relating to the airport infrastructure are suitable for the type of operations and aircraft that will be using these procedures. Consider the countries' NAVAID maintenance, system reliability rates, and monitoring capabilities, if this information can be obtained.

4. Suitability of Airport/Runway. Review AIP data provided on airport obstructions, clear zones, and runway markings that may affect the instrument procedure. Based on the information available, the assessment should determine if safe operations could be conducted in the type of aircraft operating at this location.

5. Availability of Aeronautical Information. Determine if the country maintains/updates their AIP in a timely manner (procedures dated over five years ago may be questionable as to their currency) and determine if international NOTAMs are issued and received by the United States NOTAM office.

6. Minimum Sector Altitudes (MSA). NAVAID/Source. Enter the facility ID and the type facility, or the airport, as appropriate. Some airports may publish different MSAs depending on the source (military or civilian). If you happen to find this difference while doing research for the location, select the highest MSA and document the action taken.

7. Special Notes. All notes published by the country must be assessed to determine if this will affect carrier operations and if limitations will have to be placed on the procedure.

8. Proximity to Special Use Airspace (SUA). Determine if the procedure ground track enters or is in close proximity to the SUA. It may be necessary to warn pilots to pay strict attention to maintaining a proper course in the vicinity of this airspace or ensure proper clearance has been received prior to entering the SUA.

9. Feeder Routes. If the procedure uses feeder routes, ensure that the altitudes along the feeder routes are equal to or higher than the initial approach fix (IAF) altitude.

10. Holding Patterns. Review each holding pattern separately. Refer to the current edition of FAA Order 7130.3, Holding Pattern Criteria, for additional information regarding holding patterns.

a. Leg Length. Determine whether or not the holding pattern leg length is acceptable for the type of aircraft that will be operating at this location.

b. No-Course-Signal Zone. Be aware that some holding patterns may have been designed without consideration to a potential loss of signal. Distance measuring equipment (DME) distances should not have been established within a No-Course-Signal Zone. A typical alert to pilots would be: "CAUTION: Possible (type NAVAID) unlocks during holding."

c. Maximum Holding Speeds. Each country may have their own rules regarding holding pattern airspeeds. Speed restrictions/limitations may not be defined on the procedure and it may be necessary to research this information elsewhere in their AIP.

11. Initial Segment. When a procedure has more than one IAF published, review each initial segment individually. Consider each of the following items:

a. Fix Identification. Ensure that the type of aircraft that will be using this procedure has the navigation equipment necessary to identify the fix(es).

b. Altitudes. Review the altitudes using information available for the surrounding terrain/obstructions in the area. Determine if the altitudes are mean sea level (MSL) (requiring use of a (Barometric pressure for Local Altimeter Setting) QNH altimeter setting) or heights above the altimeter station (requiring the use of a air pressure at airfield elevation QFE altimeter setting), and alert pilots of possible confusion and applicable action to be taken.

c. Procedure Turn Angle of Divergence. If a procedure contains a procedure turn of any kind, determine whether or not the angle of divergence/intercepts is acceptable and can be flown by the type of aircraft that will be using the procedure.

d. Arc Radius/Arc Length. Review to ensure that instrument procedures containing arcs can be flown without difficulty by the type of aircraft that will be using the procedure.

e. Segment Length. Review to ensure that the instrument procedure segment length is acceptable and can be flown by the type of aircraft that will be using the procedure.

f. Descent Gradient. Review to ensure that the instrument procedure segment descent gradient can be flown without difficulty by the type of aircraft that will be using the procedure.

g. Lead Radial. Ensure that a lead-radial has been established where required. If not, establish pilot guidance to ensure that there is adequate lead-time for a turn to be initiated by the type of aircraft that will be using the procedure.

h. Course Alignment. When there are course changes in this segment, review to ensure that the instrument procedure course alignment is acceptable and can be flown by the type of aircraft that will be using the procedure.

12. Intermediate Segment. Consider each of the following items:

a. Fix Identification. Ensure that the type of aircraft that will be using this procedure has the navigation equipment necessary to identify the fix(es).

b. Altitudes. Review the altitudes using information available for the surrounding terrain/obstructions in the area. Determine if the altitudes are MSL (requiring use of a QNH altimeter setting) or heights above the altimeter station (requiring the use of a QFE altimeter setting), and alert pilots of possible confusion and applicable action to be taken.

c. Segment Length. Review to ensure that the segment is sufficient in length (and alignment) to allow time to properly configure the type of aircraft that will be using the procedure. Many countries do not provide a straight intermediate segment and have a teardrop turn completion at the final approach fix (FAF). Consider establishing pilot guidance to configure the aircraft for landing early when encountering short, turning intermediate segments.

d. Descent Gradient. Review to ensure that the instrument procedure segment descent gradient can be flown by the type of aircraft that will be using the procedure.

e. Course Alignment. Review to ensure that the instrument procedure course alignment is acceptable and can be flown by the type of aircraft that will be using the procedure.

13. Final Segment. Consider each of the following items:

a. Fix Identification. Ensure that the type of aircraft that will be using this procedure has the navigation equipment necessary to identify the fix(es). Be cautious of procedures that use crossing radials for fix identification. It is important to ensure that aircraft using the procedure are appropriately equipped to define these fixes.

Note: The procedure identification may not represent all the NAVAID types necessary to fly the procedure. For example, many countries may have a non-directional radio beacon (NDB) Rwy XX procedure; however, it may require the aircraft to be equipped with dual automatic direction finder (ADF) receivers. Also at some locations an ILS procedure may require the use of an NDB for the missed approach but NDB is not part of the procedure identification.

b. Altitudes. Review the altitudes, including step down fix altitudes, using information available of the surrounding terrain/obstructions in the area. Determine if the altitudes are MSL

(requiring use of a QNH altimeter setting) or heights above the altimeter station (requiring the use of a QFE altimeter setting), and alert pilots of possible confusion and applicable action to be taken based on company policy and/or OpSpec limitations.

Note: Check the ability to discontinue an approach, if necessary, from any point to touchdown.

c. Segment Length. Review to ensure that the instrument procedure segment length is adequate for the type of aircraft that will be using the procedure.

d. Missed Approach Point to Threshold. Assess the published distance to ensure it is acceptable and determine if there are any potentially hazardous obstacles to be avoided in the visual segment. It may be appropriate to establish higher visibility minimums at some locations to ensure such obstacles can be visually acquired and avoided in the visual segment. Also consider limiting operations to "daytime only" if visual avoidance of obstacles is necessary, even if they are lighted but could be difficult to visually locate due to aircraft angle-of-attack and/or blending in with other ground lighting.

e. Descent Gradient. Calculate by dividing the height loss from the FAF/stepdown fix to the runway threshold crossing height (TCH) by the NM length of this segment. Determine if this descent gradient is suitable for the type of aircraft that will use this procedure.

Note: Some countries publish a descent gradient on final by expressing it as a percentage on the Profile View (e.g., 6.8 percent). Convert the percentage into a descent gradient expressed in ft per nautical mile (FPNM) by multiplying the percentage by 6076.11548 (e.g., .068 x 6076.11548 = 413.1758526 FPNM).

f. Descent Angle/TCH. Review the procedure to ensure the descent angle and TCH are adequate for the type of aircraft that will use this procedure.

g. Course Alignment. Review to ensure that the instrument procedure course alignment is acceptable and can be flown by the type of aircraft that will be using the procedure. If your review causes doubt as to whether a final approach course is appropriate for straight-in operations, you should determine if it meets straight-in criteria by applying calculations prescribed in the appropriate criteria.

14. Missed Approach Segment. Review the procedure to ensure the missed approach segment is adequate for the type of aircraft that will use this procedure.

Note: The missed approach procedure should specify an altitude sufficient to permit holding or en route flight. It should also specify a clearance limit. If either of these requirements is not met, specific operational guidance for pilot action should be established.

a. Course Alignment. Review to ensure that the missed approach course alignment is acceptable and can be flown by the type of aircraft that will be using the procedure. If your review causes doubt as to whether a course can be flown, you should validate it by applying calculations prescribed in the appropriate criteria.

b. Climb Gradients. Missed approach climb gradients that exceed 200 FPNM (air traffic control (ATC) or minimum for obstacle avoidance) must be evaluated to ensure that the aircraft that will be using this procedure is capable of meeting the requirement.

c. Description of Missed Approach Instructions. Review the text of the missed approach instructions to ensure they are easy to understand and follow a logical sequence of events. Provide additional pilot guidance if there is potential for misinterpretation.

15. Circling. Review circling procedures to ensure that the applicable aircraft CAT is published and available for the type of aircraft that will be using the procedure. Determine what criteria were used to develop the circling procedures and ensure pilots are made aware of the maximum speeds allowed when conducting the maneuver.

Note: The airspeeds and obstacle protected airspace permitted by ICAO PANS-OPS criteria are vastly different than those permitted by United States TERPS. See ICAO PANS-OPS Document 8168-OPS/611, Procedures for Air Navigation Services, volume I, for further details regarding airspeeds permitted.

16. Plan View/Profile View. Review the procedure to ensure data shown in the plan view corresponds to data published in the profile view. Scan these views for items that may have been inserted that are out of the ordinary and may require the additional attention of the pilot.

17. Departure Procedures. Begin the review by determining if the country has established a departure procedure solely for obstacle avoidance. Review all obstacle departure procedures and Standard Instrument Departure (SID) that will be used, by following the recommended guidelines below:

Note: Some countries do not establish a departure procedure for obstacle avoidance like the United States. They expect the pilot to avoid obstacles when not using a SID. If the location is situated in an “obstacle rich” environment, it may be appropriate to operationally require use of published SIDs as the only method of departing.

a. Departure End of Runway (DER) Crossing Restrictions. Determine if the country has established any unique DER crossing restrictions.

Note: Most departure procedures based on ICAO criteria are developed with a DER crossing restriction built in. This is commonly referred to as a “screen height.” The standard ICAO screen height is 5 meters (16 ft) and assumes that all aircraft will cross the departure end of runway at or above this height. Some countries may apply the United States option that allows this crossing height requirement to be as high as 35 ft.

b. Low, Close-In Obstacles. Consider the potential of a requirement to avoid low, close-in obstacles that are not considered in the calculation of either standard or non-standard climb gradients. Some countries may or may not depict this information on a procedure chart. This information may only be found elsewhere in their AIP in a profile map.

c. Early Turns. Review the procedure to determine if an early turn [below 400 ft above ground level (AGL)] is expected and that the type of aircraft that will be using the procedure can accomplish it safely.

d. Climb Gradients. Countries may publish climb gradients as a percentage and should be converted to a climb gradient expressed in "feet per nautical mile." Climb gradients in excess of the standard 3.3 percent (200 FPNM) will require an assessment to determine if the aircraft using the procedure can meet the published climb gradient.

e. Crossing Altitudes. Review all crossing altitudes to ensure that the aircraft using the procedure has the performance capability to meet all published restrictions. Treat all crossing altitudes as a requirement for obstacle avoidance unless specifically addressed as an ATC crossing restriction. Not all countries clearly define the difference.

f. Positive Course Guidance. Review the procedure to determine if operational restrictions will be necessary if there are excessive portions of the procedure that do not contain positive course guidance.

g. Complexity. Review the departure procedure for its complexity and if necessary, provide clarifying guidance to ensure flight safety.

Appendix B. Processing Proponent Developed Special Procedures

1. Guidelines for Processing Proponent Special Developed Procedures.

a. Proponent/Developer/Certificate Holder Assistance. The Aviation System Standards Office may establish reimbursable agreements with these entities for FAA services, to include providing quality control and ensuring standard application of criteria, administrative costs, flight inspection fees, and procedure maintenance (if provided by the Aviation System Standards Office).

b. Approval of Special FTIP. After a procedure has been submitted for review and successfully coordinated with the host nation, flight standards will issue the instrument procedure approved under this program to the designated proponent.

Note: The Department of Defense (DoD) is responsible for the development and approval of their own special instrument procedures.

2. Procedures Development and Submission Process.

a. Initiating the Development and Submission Process. A proponent should submit a written request through their assigned POI to the controlling region having jurisdiction over the airport of intended operation.

b. Pre-development Meeting. The purpose of the pre-development meeting is to identify actions required to process the procedure through the controlling region, and to identify any significant areas of concern or impact that might affect approval of the procedure. The developer presents the proposed aircraft flight track(s), airport information, planned use of navigation and visual aids, and addresses potential environmental issues. The proponent should present proof that the host state concurs with all aspects of the planned procedure/operation. The developer does not need to provide a fully developed procedure; however, the following plans/information should be provided:

(1) Proposed procedural tracks.

(2) Timely dissemination of information (NOTAM like actions).

(3) OE of new obstructions.

(4) Initial and recurring flight inspections.

(5) Accomplishing an environmental assessment.

(6) Procedure maintenance (routine amendments to the procedure).

(7) IFO documentation of coordination through the IFO, with the airport/heliport sponsor for proposed procedure.

(8) The RFSD-AWOPM will provide, upon request, a checklist for the submission of a special FTIP. Other areas to be addressed during the pre-development meeting are:

(a) Letters of Agreement.

(b) Airport owners/CAA concurrence with the proposal.

(c) Airspace study.

(d) Compatibility with air traffic flow.

(9) Requests for waivers or deviations of criteria and policy.

(a) Controlling Region' areas of concern.

(b) If applicable, initiation of a reimbursable agreement with the Aviation System Standards Office.

(c) Establishment or use of non-CAA/AIP NAVAIDs.

(d) Conversion to AIP.

c. Approval Assessment. Approval of any submitted procedure will be based on the controlling region's concurrence with the proposed procedure, and is contingent on the successful completion of the actions for processing identified in the pre-development meeting. The FAA may process a proponent-developed procedure after the pre-development meeting; however, this does not imply the FAA will approve the proposal, nor does it imply that any subsequent finding will be favorable. The proponent (or the developer acting as the agent of the proponent) is responsible for:

(1) Taking a proactive role in facilitating the required actions identified in the pre-development meeting.

(2) Resolving any unfavorable determinations, findings, or issues resulting from any evaluation of the proposal.

(3) Establishing a method for procedure maintenance will, include, but is not limited to:

(a) Notifying all approved proponents and the FAA of any changes to the procedure or the landing environment that affects the use or safety of the procedure (NOTAM like actions).

(b) Obstacle Evaluation of new obstructions.

(c) Initiating cancellation of the procedure when the procedure is no longer required.

(d) Recurring or unscheduled flight inspections.

(4) Procedure maintenance may be provided by:

(a) The proponent/developer.

(b) The Aviation System Standards Office may assign flight check responsibilities to monitor the special FTIP. Also, the proponent may retain the aviation system.

(c) Standards office to perform procedure maintenance.

d. Submission and Review.

(1) The proponent should present proof that the host state concurs with all aspects of the planned procedure/operation and all host nations requirements have been met.

(2) The RFSD-AWOPM ensures the coordination process is complete.

(3) The proponent must provide proof that they have met the host nation AIP policies on environmental aspects, as coordinated through the IFO.

(4) The proponent may submit the proposed procedure package, directly to the AJW-3 if it is being processed under a reimbursable agreement. This must include all required supporting documentation for further action, and documentation of RFSD-AWOPM concurrence.

(5) The AJW-3 may provide quality control and ensure standard application of criteria and compliance with current FAA policy and guidance, as specified in a reimbursable agreement. In these cases, the Aviation Systems Standards Office coordinates directly with the developer for additional information and flight inspection requirements as needed. The Aviation System Standards Office will interact directly with the developer to resolve any errors or inaccurate information that may require resubmission.

Note: Paragraphs 4 and 5 above, do not apply if the AJW-3 has not been contracted under a reimbursable agreement to perform those tasks specified.

(6) When the procedure has been completed, it will be submitted to AFS-400 for processing. See figure 1-1 for all processing steps that will occur. Procedures approved by AFS-400 are then forwarded to the RFSD-AWOPM for issuance to the POI. Approval of a special FTIP by the RFSD-AWOPM is not authorization for a proponent to use the procedure until it is issued by the respective POI.

e. Issuance. Order 8900.1, Volume 4, chapter 2, section 10, addresses issuance of special procedures to certificated proponents by the appropriate POI.

3. DEVELOPMENT REQUIREMENTS.

a. Accountability. A developer's signature on the procedural documentation in the FAA 8260-series of forms, attests that the proponent assures the following:

(1) That the procedure was correctly developed and documented using applicable criteria, standards, and policy.

(2) Those geodetic computations are compliant with an appropriate international standard that supports satellite navigation, e.g., the WGS of 1984.

(3) All required surveys meet FAA AC 150/5300-17B, General Guidance and Specifications for Aeronautical Survey Airport Imagery Acquisition and Submission to the National Geodetic Survey and Related Products, or equivalent standards.

b. Documentation. The procedure must be documented IAW Order 8260.19 and any supplemental requirements provided by AFS-420.

Figure B-1. FTIP Processing Flow Diagram.

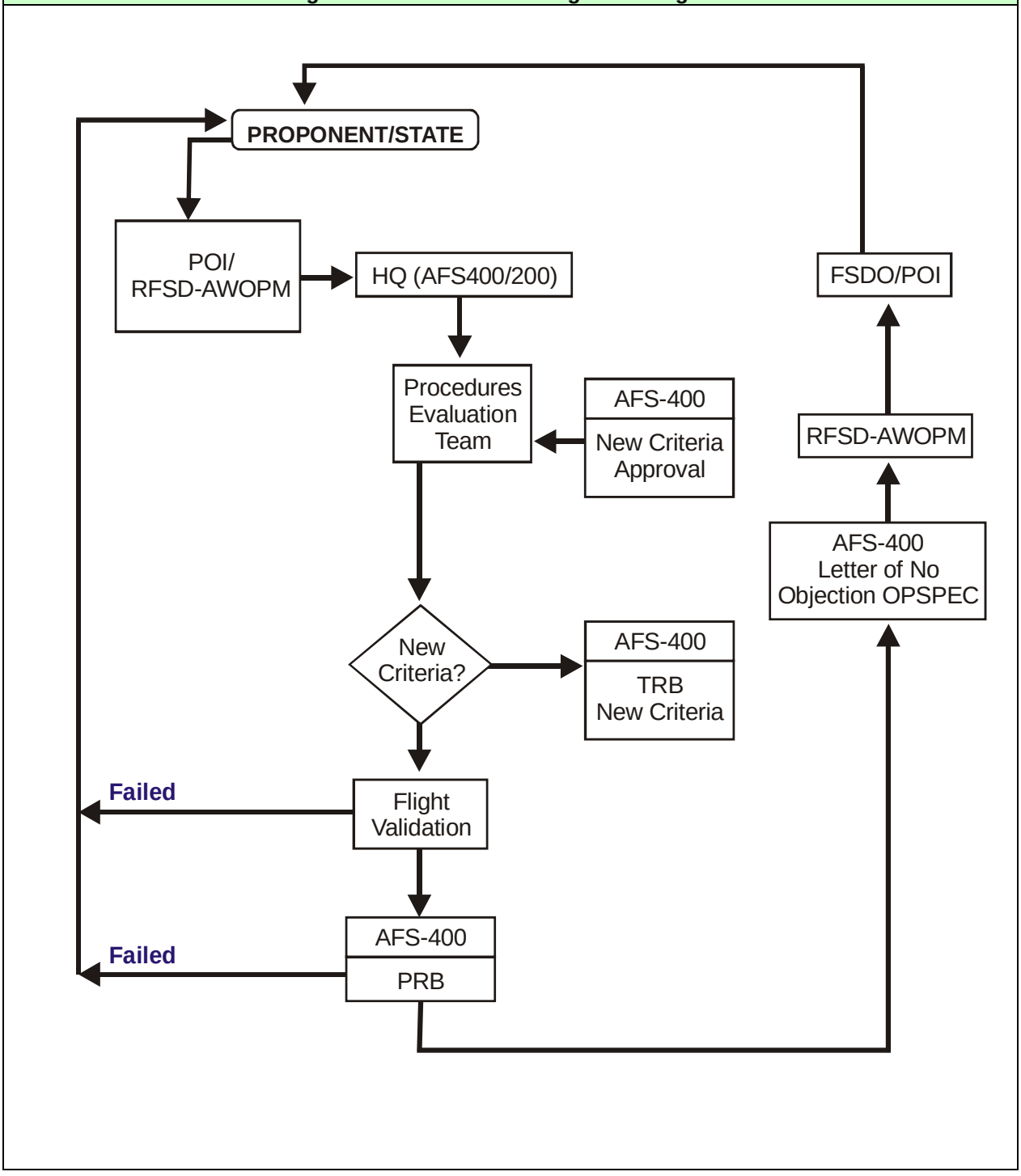
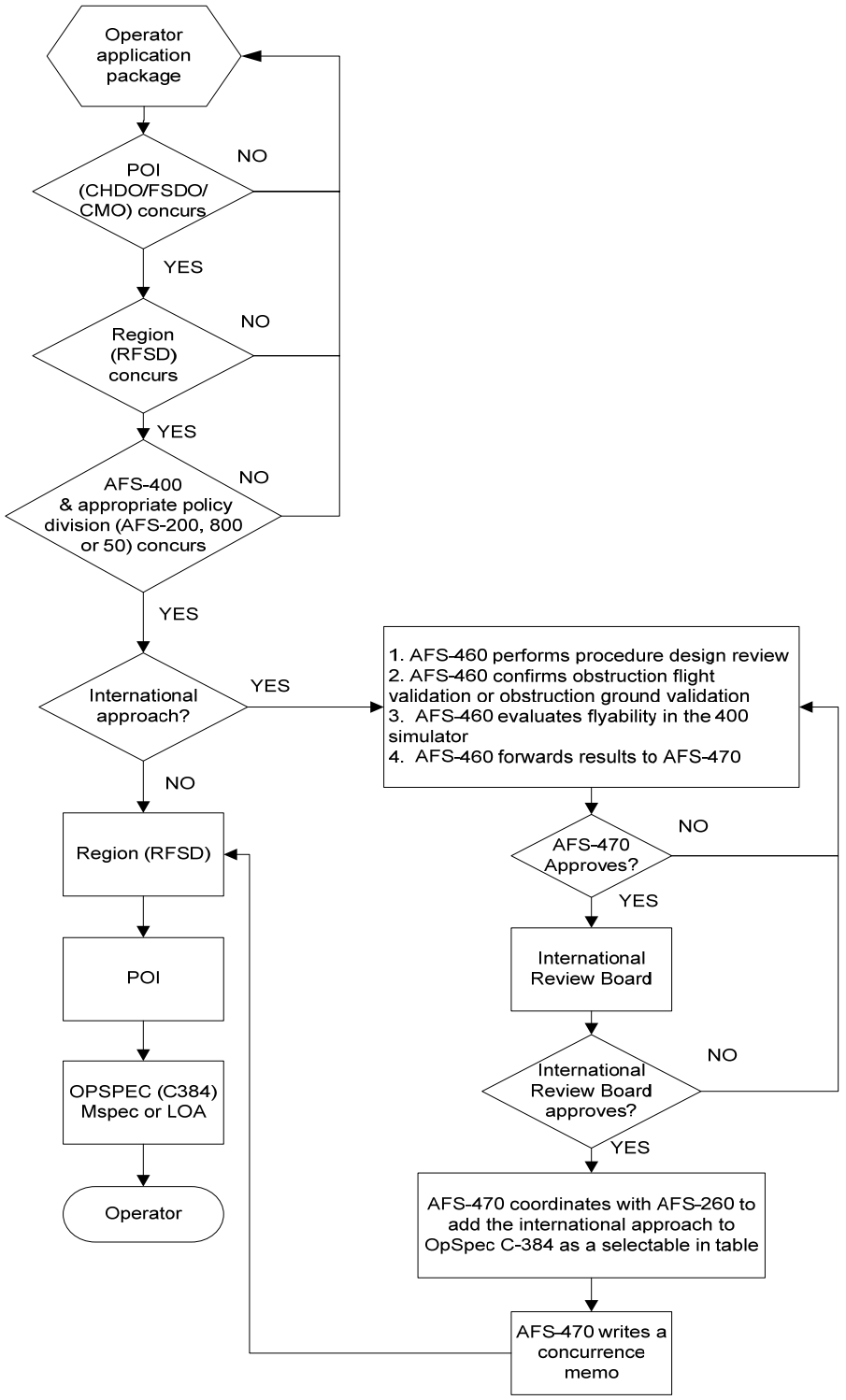


Figure B-2. RNP SAAAR/AR Flow Diagram.



APPENDIX C. SAMPLE LIST OF APPROVED FOREIGN TERMINAL INSTRUMENT PROCEDURE LOCATIONS

FEDERAL AVIATION ADMINISTRATION

FOREIGN TERMINAL INSTRUMENT PROCEDURES ACCEPTANCE LIST

Current as of: (Date)

Foreign Countries/Airports Instrument Procedures Approved for use without a Review and Do Not Require POI Approval (See Order 8260.31, paragraph 8b). These foreign locations, listed by country, are APPROVED for United States air carriers to conduct IFR operations, where indicated. Additional locations may be approved by a Regional Flight Standards Division-All Weather Operations Program Manager (RFSD-AWOPM) as specified in Order 8260.31, paragraph 8, and added to this list.

COUNTRY	REMARKS/RESTRICTIONS
England/United Kingdom	All departures must be via SIDs or Radar Vectors (Per AIP review, country does not do diverse {omni-directional} departure obstacle assessments)

ICAO ID	AIRPORT NAME	REMARKS/RESTRICTIONS
MMMX	Mexico City Intl. Airport, Mexico City, Mexico	Minimum visibility, All procedures, 2000 Meters unless lower is authorized in OpsSpecs.
MMUN	Cancun Intl. Airport, Cancun, Mexico	
RPLL	Ninoy Aquino Intl, Manila, Philippines	
VVTS	Tansonnhat Intl., Hochiminh, Vietnam	
Hong Kong (China)		All instrument procedures flight inspected by the FAA.

FTIPS Approved for Use by Operator (See Order 8260.31, paragraphs 9). These foreign locations, listed by airport, are APPROVED for the specified United States operator to conduct IFR operations, where indicated. Additional locations/procedures may be approved as specified in Order 8260.31, paragraph 9, and added to this list. Additional United States operators may be added per compliance with Order 8260.31, paragraph 9c.

ICAO ID	AIRPORT NAME	PROCEDURE ID	OPERATOR	REMARKS/RESTRICTIONS
WMKK	Kuala Lumpur Intl. Airport, Malaysia	See Remarks	Northwest Airlines	All procedures with vertical guidance only.