U.S. Department of Transportation
Federal Aviation Administration

Advisory Circular

Subject: Foreign Terminal Instrument Procedures (FTIP) Acceptance/Review

Date: 6/4/25 **AC No:** 120-105B
Initiated by: AFS-400 **Change:**

1 **PURPOSE OF THIS ADVISORY CIRCULAR (AC).** This AC contains guidelines for U.S. operators to use when reviewing Foreign Terminal Instrument Procedures (FTIP) for the operation of aircraft to/from foreign airports under Title 14 of the Code of Federal Regulations (14 CFR) parts 91 subpart K (part 91K), 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135. The Federal Aviation Administration (FAA) does not intend for the use of any language in this circular to relieve a duty imposed by 14 CFR or other applicable law.

Note: This is a guidance document. Its content is not legally binding in its own right and will not be relied upon by the Department as a separate basis for affirmative enforcement action or other administrative penalty. Conformity with the guidance document is voluntary only. Nonconformity will not affect rights and obligations under existing statutes and regulations.

2 **AUDIENCE.** The audience for this AC is U.S. operators operating aircraft to/from foreign airports under 14 CFR parts 91K, 121, 125 (including part 125 LODA holders), and 135.

3 **WHERE YOU CAN FIND THIS AC.** You can find this AC on the FAA's website at https://www.faa.gov/regulations_policies/advisory_circulars and the Dynamic Regulatory System (DRS) at https://drs.faa.gov.

4 **WHAT THIS AC CANCELS.** AC 120-105A, Foreign Terminal Instrument Procedures (FTIP) Acceptance/Review, dated April 18, 2013, is canceled.

5 **PRINCIPAL CHANGES.**

1. Revised for a more detailed clarification to provide operators a step-by-step recommended risk-based analysis process for review of FTIPs and airports, as well as when the operator should consider restricting certain aspects of an FTIP or discontinuing use based on the findings of the analysis.
2. Removed the FAA approval process for Categories (CAT) II and III and Required Navigation Performance Authorization Required (RNP AR) FTIPs. These processes were replaced with recommendations for the operator to perform their own risk-based analysis of the desired FTIPs.

3. Replaced all regional NextGen Branch references with “Flight Procedures and Airspace Group.”
4. Updated office identifications to reflect current FAA organizational structures.
5. Replaced all Mission Support, Aeronautical Products (AJV-3) references with “Aeronautical Information Services.”
6. Replaced all Technical Operations, Aviation System Standards (AJW-3) references with “Flight Program Operations.”
7. Replaced all Office of International Aviation (AIA-1) references with “International Program Division.”
8. Revised formatting to meet current FAA standards.

6 DEFINITIONS.

6.1 Aeronautical Information Publication (AIP). A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation (International Civil Aviation Organization (ICAO) Annex 15, Aeronautical Information Services).

6.2 Atmospheric Pressure at Aerodrome Elevation (or at Runway Threshold) (QFE). A pressure type altimeter calibrated in accordance with the Standard Atmosphere and will indicate height above QFE reference datum (normally aerodrome elevation or at runway thresholds as indicated) (ICAO Annex 11, Air Traffic Services).

6.3 Barometric Pressure for Local Altimeter Setting (QNH). A pressure type altimeter calibrated in accordance with the Standard Atmosphere and will indicate altitude (ICAO Annex 11).

6.4 Civil Aviation Authority (CAA). A governmental entity that regulates the technical/economic aspects of civil/military air transport within its borders. CAAs are responsible for aviation safety, security, and enforcement through regulation and oversight.

6.5 Converted Meteorological Visibility (CMV). A value (equivalent to a Runway Visual Range (RVR)) that is derived from the reported meteorological visibility (ICAO Doc 9365, Manual of All-Weather Operations).

6.6 Flight Standards (FS) Safety Assurance Offices. FS Safety Assurance offices are responsible for issuing Air Carrier Certificates, approving operations specifications (OpSpecs), and regular inspection and surveillance of certificate holders (CH).

6.7 Foreign Terminal Instrument Procedures (FTIP). FTIPs include instrument approach and departure procedures developed and published for use in foreign States.

6.8 International Civil Aviation Organization (ICAO) Member State. A State identified by ICAO as "contracting State." This information is available on the ICAO website (https://www.icao.int).

6.9 International Field Office (IFO). The IFO is an FS office that authorizes flight operations to/from the United States by foreign air carriers and foreign persons.

6.10 North Atlantic Treaty Organization (NATO) Military Instrument Procedures Standardization (MIPS). A combination of ICAO Procedures for Air Navigation Services—Aircraft Operations (PANS-OPS), FAA Terminal Instrument Procedures (TERPS), and NATO IFP design criteria (AATCP-1C, Allied Air Traffic Control Publication).

6.11 Procedures for Air Navigation Services—Aircraft Operations (PANS-OPS). PANS-OPS consists of three volumes. All three volumes present coverage of operational practices that are beyond the scope of Standards and Recommended Practices (SARPs) but with respect to which a measure of international uniformity is desirable. The design of procedures in accordance with PANS-OPS criteria assumes normal operations. It is the responsibility of the operator to provide contingency procedures for abnormal and emergency operations. (ICAO Doc 8168, Aircraft Operations, Volume I, Flight Procedures.)

6.11.1 Volume I, Flight Procedures. Volume I describes the operational requirements for flying the procedures designed in accordance with the criteria provided in Volume II.

6.11.2 Volume II, Construction of Visual and Instrument Flight Procedures. Volume II is intended for the guidance of procedures specialists and describes the essential areas and obstacle clearance requirements for the achievement of safe, regular instrument flight operations. It provides the basic guidelines to States, and those operators and organizations producing instrument flight charts that will result in uniform practices at all aerodromes where instrument flight procedures are carried out.

6.11.3 Volume III, Aircraft Operating Procedures. Volume III describes operational procedures recommended for the guidance of flight operations personnel and flight crew.

6.12 Operator. A U.S. operator, operating under 14 CFR part 91K, 121, 125 (including part 125 LODA holders), or 135, who holds either an Air Carrier Certificate or an Operating Certificate. FTIPs review actions performed by a contractor or consultant while employed by an operator are the actions of the operator.

6.13 Special Administrative Region (SAR). A location that is not a contracting State but has its own AIP and can be afforded the same accreditation status, as would an ICAO Member State (https://www.icao.int).

7 RELATED READING MATERIAL (current editions).

- AC 90-101, Approval Guidance for Required Navigation Performance (RNP) Procedures with Authorization Required (AR).

- FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).
- ICAO Doc 8168, Aircraft Operations, Volume I, Flight Procedures.
- ICAO Doc 8168, Aircraft Operations, Volume II, Construction of Visual and Instrument Flight Procedures.
- ICAO Doc 9365, Manual of All-Weather Operations.
- ICAO Annex 15, Aeronautical Information Services.

Note: ICAO publications are available at https://www.icao.int.

8 BACKGROUND. This AC provides considerations operators can use when developing a risk-based review process for foreign IFPs. While the majority of instrument procedures published worldwide are safe and adhere to standard criteria (e.g., ICAO PANS-OPS, NATO MIPS, or FAA TERPS), it is still the responsibility of an operator per 14 CFR § 91.703 to be familiar with the individual foreign State's AIPs and its stated exception(s) to criteria during the review process. The previous revision of this AC recommended operators review all foreign instrument procedures prior to use. This AC provides an alternate method to review the foreign State's declared differences from standard design criteria used in the instrument procedure development process. Operators should focus on accepting or mitigating risks created by these differences. Mitigations could include pilot awareness or not flying specific instrument procedures. Operators may use Appendix A, Foreign Terminal Instrument Procedures (FTIP) Risk Considerations, and/or Appendix B, Operator Considerations When Reviewing a Foreign State CAA, to tailor a scalable FTIP review process. Acceptance of the CAA procedure design practices should be reviewed at a frequency determined by the operator.

8.1 Controlled Use of FTIPs. As a result of the review process, operators may determine whether to restrict or deny use of certain FTIPs because of variations in application of, and adherence to, criteria by individual foreign States. Operators have the latitude to develop their own review process. They should inform the foreign State's CAA of issues identified during the review process, and of their intention to augment their pilot's use of these procedures.

9 RECOMMENDED PRACTICES AND OBJECTIVES.

9.1 Operator's FTIP Responsibilities. Operators should do their own risk-based analysis of the FTIP review. Per 14 CFR § 91.703, the operator has the ultimate responsibility to review procedures or review the foreign State's CAA aviation requirements using the appropriate AIP or equivalent information. If the operator, or any other source, detects or receives information of discrepancies involving safety of flight, that are not already advertised in the international Notice to Airmen (NOTAM) system, the operator should not use the affected FTIP. A determination should be made if the safety of flight issue involves other procedures in that foreign State. Operators are encouraged to become stakeholders in the FAA's Aviation Safety Information Analysis and Sharing (ASIAS) program where aggregate flight data and pilot safety reports are used to identify unstable

approaches, Terrain Awareness and Warning System (TAWS) alerts, and Traffic Alert and Collision Avoidance System (TCAS) alerts to foreign airport runways.

9.2 Operator Review. When operators create a process for risk-based reviews of foreign procedures, they should be both proactive and reactive. The proactive process should start with the initial review of the foreign CAA or IFP, while the reactive process may be triggered by new information received after the initial review. This could be triggered by new NOTAMs, significant changes to IFPs, flight data monitoring events, pilot safety reports, industry reports from data sharing programs, etc. Whether proactive or reactive, operators may choose not to fly specific procedures after a review or place additional requirements on how a procedure will be flown. Appendix A contains items which can assist in the review of FTIPs. Appendix B contains items that should be considered when reviewing the foreign State's CAA program. If the operator is unable to conduct a satisfactory review (i.e., insufficient aeronautical data available) of the FTIP or CAA, the operator should not use the procedure.

Note: The existence of a commercially produced chart is not an assurance of compliance with criteria or suitability for use by an individual operator. These charts may identify the procedure design criteria used on the IFP but may not identify differences from criteria design standards. Operators and pilots should review the State's AIP or equivalent for any differences.

Note: Operators should look for opportunities to share identified risks through industry information sharing programs such as the ASIAS system.

9.3 Documentation. When a risk-based analysis identifies deficiencies or determines that a foreign State's FTIPs or its CAA program meet applicable standards without deviation, operators should document and communicate the findings to pilots to assist their preflight planning into that State. These findings should be retained for the duration of usage.

9.4 OpSpec/Management Specification (MSpec)/Letter of Authorization (LOA) Conformance. Operators must conform to the limitations and provisions identified in the appropriate OpSpec/MSpec/LOA commensurate with the procedure type identified on the foreign State's FTIP. These limitations and provisions may be more stringent than the foreign State's FTIP.

- OpSpec/MSpec/LOA C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima—All Airports.
- OpSpec/MSpec/LOA C059, Special Authorization Category I (SA CAT I) Instrument Approach and Landing Operations.
- OpSpec/MSpec/LOA C060, Category II and Category III Instrument Approach and Landing Operations.
- OpSpec/MSpec/LOA C384, Required Navigation Performance (RNP) Procedures With Authorization Required (AR).

9.5 FTIP Deviations from Criteria. ICAO PANS-OPS, NATO MIPS, and FAA TERPS are the approved criteria for FTIP development. Even if a country is an ICAO Member State, it may not fully comply with all ICAO technical manuals. ICAO Annex 15, in conjunction with ICAO Doc 10066, Aeronautical Information Management, directs ICAO Member States to identify all exceptions to ICAO SARPs and procedures in their AIP (normally in the ENR 1.5 or GEN 1.7 section).

9.5.1 If the operator receives information about discrepancies in the application of criteria that are not already advertised in the foreign State's AIP or the international NOTAM system, the foreign State's CAA should be contacted for resolution. If unresolved, follow paragraph 12.

9.5.2 Appropriate commercial aeronautical data and chart providers may furnish consolidated AIP excerpts identifying a State's conformance to ICAO SARPs exceptions, differences identified in GEN 1.7 and ENR 1.5, and State-specific procedures. Operators and pilots may use this provided aeronautical data to conduct their risk-based review of FTIP in lieu of reference to a State's AIP.

9.5.3 During the risk-based analysis of these exceptions, procedural restrictions or special provisions (if any) may be identified to mitigate safety issues presented by these exceptions to an acceptable level of risk for continued operations. If procedural restrictions and/or special provisions, such as aircrew training, are not practical, or an acceptable level of risk cannot be achieved, operators may determine whether to augment or deny use of an FTIP.

9.5.4 Per 14 CFR § 91.703, operators are responsible for periodic reviews of FTIPs they fly with procedural restrictions or special provisions. Operators should initiate a review any time they discover or suspect additional discrepancies with criteria, or if there have been any procedural changes to the FTIP.

9.5.5 Operators may contact the Flight Procedures and Airspace Group at 9-amc-fsifp-oversight@faa.gov if there are questions about a foreign State's compliance with the approved criteria for FTIP development. However, the FAA will not publish a list of approved or unapproved foreign procedures or foreign airport facilities.

9.5.6 Additional guidance for foreign instrument procedure reviews and processes is available at the FAA Flight Procedures and Airspace Group website via https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs420.

10 FTIP DEVELOPMENT AND DESIGN. FAA Aeronautical Information Services may perform FTIP development under a reimbursable agreement with the foreign State. The foreign State should contact the International Program Division to determine the level of support available and the financial arrangements. Aeronautical Information Services offers FTIP development, design, and maintenance in accordance with Order 8260.3 and other applicable FAA directives.

11 FAA FLIGHT INSPECTION SERVICES. Flight Program Operations may perform flight inspection services under a reimbursable agreement with a foreign State. Flight

inspection services include the initial commissioning of the procedure and periodic flight inspections as required by a foreign State or in FAA Order 8200.1, United States Standard Flight Inspection Manual (USSFIM).

12 SURVEILLANCE AND FEEDBACK. Operators who fly regularly to/from foreign airports used by U.S. operators are in a position to observe the airport's approach and departure environment and can provide feedback for deviations from safe operating procedures. Operators should look for opportunities to share this feedback through industry information-sharing programs such as ASIAS. When the operator detects or receives information of discrepancies affecting safe use of an FTIP, operators may choose to deny the use of the FTIP(s) or place additional requirements on how a procedure will be flown to mitigate the potentially unsafe situation.

13 AC FEEDBACK FORM. For your convenience, the AC Feedback Form is the last page of this AC. Note any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this AC on the Feedback Form.

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APPENDIX A. FOREIGN TERMINAL INSTRUMENT PROCEDURES (FTIP) RISK CONSIDERATIONS

A.1 Background. This appendix provides considerations operators can use when developing a risk-based review process for individual Foreign Terminal Instrument Procedures (FTIP). The majority of International Civil Aviation Organization (ICAO) Member States use Federal Aviation Administration (FAA)-accepted Procedures for Air Navigation Services—Aircraft Operations (PANS-OPS) criteria as the basis for instrument procedure design. This appendix is designed to provide operators with enough detail to identify where foreign States deviate from accepted criteria and explain how those deviations may impose additional operational risk.

Operators should be aware that a foreign State's minimum visibility/Runway Visual Range (RVR) and minimum descent altitude (height) (MDA(H)) or decision altitude/height (DA/H) may be lower than what is included in FAA operations specifications (OpSpecs). Takeoff minimums also may differ. ICAO refers to these minimum visibilities and altitudes as Aerodrome Operating Minima (AOM). ICAO has worked to harmonize these values between foreign States in ICAO Doc 9365, Manual of All-Weather Operations, but differences remain. Per 14 CFR § 91.703, operators must adhere to the visibility and altitude in the OpSpec or the foreign State, whichever is higher. Some commercial aeronautical data and chart providers have their own policy for charting minimums considering AOM charting and AOM labeling. Operators should be familiar with how commercial suppliers present minimums.

A.1.1 Controlled Use of FTIPs. It may be necessary for operators to augment or deny pilots use of certain FTIPs because of unacceptable risk identified by the operator during the FTIP assessment. To maintain flight safety, denial or restrictions on the use of certain FTIPs are identified by the operator through review of procedures and the foreign State's Aeronautical Information Publication (AIP) or equivalent information. An example of a restriction may be establishing special training or qualification for specific situations discovered in the review, as a result of any issues identified from adverse "service experience" with the procedure, or to restrict certain aspects of the procedure from use.

A.1.2 ICAO Member State AIP Requirements. Most information used to conduct an FTIP review can be found in the foreign State's AIP. This information may also be provided by appropriate commercial aeronautical data and chart providers in their State/Regional specific pages dedicated to identifying conformance with ICAO SARPs, ICAO AOM, Procedures for Air Navigation Services—Air Traffic Management (PANS-ATM), etc., along with differences and exceptions applied by individual State. All ICAO Member States, also known as contracting States and Special Administrative Regions (SAR), must have an AIP per ICAO Annex 15, Aeronautical Information Service, and use ICAO Doc 10066, Aeronautical Information Management, for the layout and content. The ICAO status of a foreign State can be found at https://www.icao.int/about-icao/Pages/member-states.aspx. For nonmember States, the operator may need to contact the State's Civil Aviation Authority (CAA) directly for the required aeronautical information to conduct an FTIP review.

A.2 General Review Recommendations. The operator can use the following list of considerations when reviewing foreign instrument procedures. Additional approach and departure procedure considerations are in their respective sections of this appendix. Appropriate commercial aeronautical data and chart providers may collect this AIP data from foreign States and present it in proprietary formats in lieu of referring to the foreign State's AIP. This list of considerations references foreign State AIPs so operators are familiar with the source data, but operators may use equivalent information provided by an appropriate commercial aeronautical data and chart provider in their own proprietary format.

A.2.1 Aeronautical Infrastructure. Per ICAO Annex 15, the foreign State must declare differences from all ICAO Annexes, most often found in the AIP section GEN 1.7, or equivalent. Operators should review these differences and determine there is no unacceptable level of safety risk. Most of the information relevant to specific airport instrument procedures may be found in the AIP Aerodrome (AD) pages for a specific airport. These AD pages include the source documents for instrument procedure charts and airport diagrams with lighting and marking used by third-party charting providers. If a question about the CAA's instrument procedure design or aeronautical practices exists, the operator may contact the CAA directly per the point of contact information found in the AIP to have these questions resolved. If unable to make contact or get clarification from the CAA, the operator may reach out to the FAA per paragraph 9.5.5 or 9.5.6, as applicable, for assistance. Please be aware that commercial aeronautical data and chart providers may have already established direct communications with the CAA and often resolve questions faster than using government channels.

A.2.1.1 Suitability of Ground Systems/Equipment. The airport lighting, transmissometers, and other items relating to the airport infrastructure should be suitable for the type of operations and aircraft using these procedures. The foreign country should have a stated Navigational Aid (NAVAID) maintenance policy in the AIP that describes system reliability rates and monitoring capabilities. ICAO Member States follow ICAO Annex 10, Aeronautical Telecommunications, for appropriate NAVAID configurations. Exceptions to Annex 10 are found in GEN 1.7 of the foreign State's AIP. Airport-specific NAVAID data is in the AD section of the foreign State's AIP.

A.2.1.2 Suitability of Airport/Runway/Taxiway. The AIP data will detail airport obstructions, clear zones, and runway markings that may affect the instrument procedures. The following information can be found in the AD section of the State's AIP:

- Aprons, taxiways, and check locations.
- Surface Movement Guidance and Control System (SMGCS) markings (low visibility).
- AD obstacle location and description.

- Approach and runway lighting (most include Category (CAT) I, II, or III ratings).
- Other lighting and secondary power supply.
- Radio navigation and landing aids (most include instrument landing system (ILS) NAVAID CAT I, II, or III).
- Local AD regulations.
- AD charts (AIP supplements may be issued that revise these charts).

Note: For specific CAT II/III airport/runway considerations, refer to ICAO Doc 9365, Chapter 5, Additional Requirements for Type B Category II and III ILS Operations.

A.2.1.3 Availability of Aeronautical Information. The AIP is prepared in accordance with the Standards and Recommended Practices (SARPs) of ICAO Annex 15 and ICAO Doc 8126, Aeronautical Information Services (AIS) Manual. Most foreign States publish an electronic AIP (eAIP) available via foreign State websites. AIP are maintained on a regular revision cycle, and for significant changes, follow the Aeronautical Information Regulation and Control (AIRAC) cycle. The AIRAC cycle is 28 days, with AIP revisions scheduled every 56 days. Foreign States will issue Notices to Airmen (NOTAM) in the interim. Operators should ensure that a foreign country's domestic/international NOTAMs are the most current and available for applicable operations.

Note: Appropriate commercial flight planning providers may provide additional NOTAMs through proprietary systems equivalent in timeliness and quality to the U.S. NOTAM system that foreign States do not share with the United States. Operators should understand these services and ensure they meet their intended requirements.

A.2.1.4 Procedure Design Authority. Operators should ensure they have the correct AIP from the appropriate authoritative source within the foreign State. When a country has multiple aviation authorities, this may result in having different AIPs within the same country, or the AIP may have been partitioned into different sections. For example, the CAA may or may not be responsible for the military procedures within the same State. In many cases, where a civil and military authority exist, two separate AIPs for that State are issued. However, when the CAA has responsibility for military procedures, the information may be partitioned within the civil AIP.

A.2.2 Instrument Procedure Development. Operators should consider the risk of instrument procedure design criteria used by a foreign State that do not conform to ICAO PANS-OPS, North Atlantic Treaty Organization (NATO) Military Instrument Procedures Standardization (MIPS), and FAA Terminal Instrument Procedures (TERPS), or a combination of the three. Primarily, instrument procedure development activities outside

the United States and its territories use ICAO PANS-OPS criteria for procedure development.

A.2.2.1 Foreign States may use ICAO PANS-OPS, NATO MIPS, and FAA TERPS, a combination of the three, or its own criteria. The foreign State's AIP should detail criteria used to develop their instrument procedures and significant differences from criteria standards (normally in the ENR 1.5 or GEN 1.7 section). Operators should consider the effects these differences present to the operation they intend to perform and if denial or restriction of the FTIP is necessary to mitigate any unacceptable risk they introduce.

Note: Some commercial aeronautical data and chart providers may identify criteria used for procedure development and the foreign State declared differences from criteria standards. It is the operator's responsibility to be familiar with how to access and apply this information.

Note: Foreign State instrument procedure criteria clarification questions can be sent to the FAA Flight Procedures and Airspace Group at 9-amc-fsifp-oversight@faa.gov.

A.2.2.2 Foreign Required Navigation Performance Authorization Required (RNP AR) procedures, approaches, and departures, are utilized at airports with limiting terrain or obstacle environments or at places with unique operational challenges. Per 14 CFR § 119.49, OpSpec C384 is required to fly RNP AR procedures. OpSpec C384 is required to fly RNP AR procedures. Operators must adhere to the limitations of the OpSpec and should consider guidance in Advisory Circular (AC) 90-101, Approval Guidance for Required Navigation Performance (RNP) Procedures with Authorization Required (AR). Foreign States that adhere to PANS-OPS are also expected to adhere to ICAO Doc 9905, Required Navigation Performance Authorization Required (RNP AR) Procedure Design Manual, for RNP AR design criteria.

Note: Foreign States may publish visual procedures that use an RNP AR navigation track. These hybrid procedures transition to a "visual" procedure or a procedure that requires visual flight rules (VFR) conditions as they approach the runway. These procedures may be labeled as RNP (visual maneuver with prescribed track (VPT)) for "visually guided procedures." These procedures are not considered RNP AR approaches. Operators should exercise caution before flying these procedures since they do not conform to ICAO instrument procedure design criteria in ICAO Doc 9905.

A.2.3 Cold Temperature Corrections. The foreign State may utilize cold temperature corrections. Operators should ensure company policy allows the use of these corrections by applying them manually or using onboard avionics. Operators should also ensure that crews are trained in the application of cold temperature corrections per the foreign State's

AIP procedures. The design of some procedures may result in the activation of terrain warning systems if the cold temperature correction is not applied properly.

A.3 Instrument Approach Review Recommendations. It is important to first, understand which design criteria were applied to the instrument approaches being utilized (e.g., TERPS, PANS-OPS Volume II, etc.); second, apply the appropriate flight procedures prescribed (e.g., US AIM, PANS-OPS Volume I, or other State-specific procedures); and third, apply any differences or exceptions noted in the AIP. The operator is not expected to have to "QA" the procedure further. The operator can use the following to review an instrument approach procedure (IAP) as part of their preflight planning or risk-based analyses:

A.3.1 Minimum Sector Altitudes (MSA) NAVAID/Source. Identify the facility ID and the type of facility, or the airport, as appropriate for the MSA they want to evaluate. MSAs may differ between FTIPs at the same airport even though they are based on the same reference point. This typically occurs through the procedure amendment process timeline. Operators who discover a difference may select the highest MSA as a risk mitigation or fly the procedure as charted.

A.3.2 Special Notes. Chart notes published by the country may affect operations or require additional operational limitations.

A.3.3 Proximity to Special Use Airspace (SUA). Procedure ground tracks may enter or be near SUA. Operators should consider warning pilots to pay strict attention to maintaining a proper flight track in accordance with the approved procedure to be flown.

A.3.4 Feeder Route. Altitudes along the feeder routes should be equal to, or higher than, the initial approach fix (IAF) altitude.

A.3.5 Holding Patterns. Refer to the U.S. Aeronautical Information Manual (AIM) or ICAO Doc 8168, Aircraft Operations, Volume I, Flight Procedures, as applicable, for additional information regarding holding patterns.

A.3.5.1 Leg Length. Holding pattern leg length should be acceptable for the type of aircraft that will be operating at this location.

A.3.5.2 Maximum Holding Speeds. Each foreign State may have its 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.

A.3.6 Initial Segment. A procedure will have multiple initial segments when more than one IAF is published. Operators should consider each of the following items:

A.3.6.1 Fix Identification. The aircraft that will be using this procedure should have the navigation equipment necessary to identify the fix(es).

A.3.6.2 Altitudes. Altitudes should provide adequate obstacle and terrain clearance if adhering to PANS-OPS/MIPS/TERPS criteria. Altitudes will be published as mean sea level (MSL), requiring use of a barometric pressure for local altimeter setting (QNH), or heights above the altimeter station, requiring the use of an atmospheric pressure at aerodrome elevation (or at runway threshold) (QFE) altimeter setting. Alert pilots of possible confusion and applicable action to be taken.

A.3.6.3 Distance Measuring Equipment (DME) Arc Radius/Arc Length. The aircraft and its avionics should be able to track the arc without difficulty.

A.3.6.4 Segment Length. The segment length should be suitable for the aircraft using the instrument procedure.

A.3.6.5 Descent Gradient. The segment descent gradient should be suitable for the aircraft using the procedure.

A.3.6.6 Lead Radial. Lead radials should be established where required. If not, a lead radial may need to be calculated for operator use.

A.3.6.7 Course Alignment. When there are course changes in this segment, the course alignment should be suitable for the aircraft using the procedure.

A.3.7 Intermediate Segment. Operators should consider each of the following items:

A.3.7.1 Fix Identification. The aircraft that will be using this procedure should have the navigation equipment necessary to identify the fix(es).

A.3.7.2 Altitudes. Altitudes should provide adequate obstacle and terrain clearance if adhering to PANS-OPS/MIPS/TERPS criteria. Altitudes will be published as MSL, requiring use of QNH, or heights above the altimeter station, requiring the use of a QFE altimeter setting. Alert pilots of possible confusion and applicable action to be taken.

A.3.7.3 Segment Length. The segment should be 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.

A.3.7.4 Descent Gradient. The segment descent gradient should be suitable for the aircraft using the procedure.

A.3.7.5 Course Alignment. The instrument procedure course alignment should be suitable for the type of aircraft that will be using the procedure.

A.3.8 Final Segment. Operators should consider each of the following items:

A.3.8.1 **Visibility Values.** If no visibility values (aerodrome operating minimums) are provided on the foreign State AIP chart, then the responsibility to ensure compliance with approved visibility criteria remains with the certificate holder (CH) per 14 CFR § 91.703. Apply commensurate criteria to the State chart when calculating and identifying a visibility or RVR restriction for the procedure. In all cases, the operators must not fly lower minimums than those authorized in OpSpecs per 14 CFR § 119.49.

Note: This does not preclude the use of commercial aeronautical data and chart providers from calculating and publishing visibility values for the operator.

A.3.8.2 **Lighting Systems.** The lighting system should be compliant with the identified procedure criteria used by the State for the development of the airport unless exceptions are stated in the AIP or equivalent source documents. For more information on ICAO lighting requirements, refer to ICAO Annex 14, Volume I, Aerodrome Design and Operations.

A.3.8.3 **Fix Identification.** The aircraft that will be using this procedure should have the navigation equipment necessary to identify the fix(es).

A.3.8.4 **Altitudes.** Altitudes should provide adequate obstacle and terrain clearance if adhering to PANS-OPS/MIPS/TERPS criteria. The foreign State will publish altitudes as MSL, requiring use of a QNH altimeter setting, or heights above the altimeter station, requiring the use of a QFE altimeter setting. Operators should alert pilots of possible confusion and applicable action to be taken.

A.3.8.5 **Segment Length.** The instrument procedure segment length should be adequate for the type of aircraft using the procedure and pilots should be able to discontinue an approach, if necessary, from any point to touchdown.

A.3.8.6 **Descent Gradient.** Descent gradients should be suitable for the aircraft using the procedure. Calculate by dividing the height loss from the FAF/step-down fix to the runway threshold crossing height (TCH) by the nautical mile (NM) length of this segment.

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 feet per nautical mile (ft/NM) by multiplying the percentage by 6076.11548 (e.g., .068 x 6076.11548 = 413.1758526 ft/NM).

A.3.8.7 **Descent Angle/TCH.** The descent angle and TCH should be adequate for the type of aircraft using the procedure.

A.3.9 Missed Approach Segment (MAS). The MAS should be adequate for the aircraft using this procedure. For example, a procedure may have an early turn (below 400 ft above ground level (AGL)). Operators should consider whether to restrict the procedure to aircraft that can accomplish this operation safely or to deny use of the procedure altogether.

A.3.10 Circling. The applicable aircraft category should be published and available for the type of aircraft that will be using the circling procedure. The AIP will state what criteria were used to develop the circling procedures. Operators should inform pilots of the maximum speeds allowed when conducting the maneuver.

Note: Some commercial aeronautical data and chart providers list the speed instead of the aircraft category for pilot awareness.

A.3.11 Plan View/Profile View. Data shown in the plan view should correspond to data published in the profile view. Operators should inform pilots of anything out of the ordinary in these views.

A.4 Departure Procedure Review Recommendations. The operator can use the following information when conducting risk-based reviews of departure procedures (DP) and Standard Instrument Departures (SID):

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, the operator may determine to require the use of published SIDs as the only method of departing.

A.4.1 Departure End of Runway (DER) Crossing Restrictions. ICAO Doc 8168, Volume II, Construction of Visual and Instrument Flight Procedures, includes departure procedures with a DER crossing restriction built in. This is commonly referred to as a "screen height." The standard ICAO DER crossing restriction is five meters (16 ft) and assumes all aircraft will cross DER at or above this height. This standard should be assumed if the foreign State's AIP states that ICAO PANS-OPS was used without any screen height exceptions for the development of the procedure. Operators should be familiar with exceptions to DER crossing restrictions.

A.4.2 Low, Close-in Obstacles. Standard and non-standard climb gradients may not account for low, close-in obstacles when foreign States design them. Some countries might not depict this information on a procedure chart. This information might only be available elsewhere in their AIP in a profile map.

A.4.3 Early Turns. A procedure may have an early turn (below 400 ft AGL). It may be necessary to restrict the procedure to aircraft that can accomplish this operation safely or deny use of the procedure altogether.

A.4.4 Climb Gradients. Countries may publish climb gradients as a percentage. Operators may need to convert this to ft/NM. Climb gradients exceeding the standard 3.3 percent

(200 ft/NM) may exceed aircraft performance limits and may require an assessment to determine if the aircraft using the procedure can meet the published climb gradient.

A.4.5 Crossing Altitudes. Countries will publish crossing altitudes per ICAO Annex 4, Aeronautical Charts. Aircraft using the procedure should have the performance to meet all published restrictions. Operators should treat all crossing altitudes as a requirement for obstacle avoidance unless specifically addressed as an air traffic control (ATC) crossing restriction. Not all countries clearly define the difference.

A.4.6 Positive Course Guidance. Procedures should depict positive course guidance. If there are excessive portions of the procedure that do not contain positive course guidance, the operator may determine to impose additional operational restrictions.

A.4.7 Complexity. Procedures should be designed to minimize complexity. If overly complex, operators should provide clarifying guidance to ensure flight safety.

APPENDIX B. OPERATOR CONSIDERATIONS WHEN REVIEWING A FOREIGN STATE CAA

B.1 Background. This appendix contains items of interest that should be considered when reviewing the foreign State's Civil Aviation Authority (CAA) aviation program. Operators may establish a risk-based management process that identifies, maintains, and periodically revalidates a list of foreign State CAA programs that consistently develop and maintain instrument procedures equivalent to the same degree as U.S. standards. This risk-based assessment should focus on CAA differences from the International Civil Aviation Organization (ICAO). These ICAO differences can be found in Aeronautical Information Publication (AIP) ENR 1.5 and GEN 1.7 or a commercial equivalent. An operator should review these differences to see if additional individual procedure reviews are warranted or if any of these differences require additional mitigation in the form of pilot awareness or denying use of a specific procedure. Operators should routinely review these foreign-State-declared ICAO differences.

Large operators may use this information to create specific training, briefing manuals, or specific pilot alerts. Smaller on-demand operators may train their pilots on how to access this information from existing commercial aeronautical data and chart suppliers and then have a system to notify the company of operational concerns discovered upon reviewing this information during trip planning.

B.2 CAA Program Assessment. The operator's risk-based management process should address items identified in Appendix A, Foreign Terminal Instrument Procedures (FTIP) Risk Considerations, as well as flight inspection, flight validation, and instrument procedure development, publication, and maintenance practices. A foreign State CAA program may be found acceptable after assessing an appropriate sample size of FTIPs. The operator should review the procedures for consistency with design criteria and should determine whether any risk is acceptable. The CAA is also expected to meet other established ICAO standards explained in this appendix. The FAA recommends that the operators revalidate a foreign State's CAA program and FTIPs at a minimum 3 year interval, or sooner if needed. The operator should consider the following during the initial assessment or revalidation of a foreign State:

B.2.1 Procedure Development Consistency. No unacceptable risk should be presented after assessing an appropriate number of FTIPs utilizing Appendix A. The appropriate number of instrument procedures should be based on the procedure inventory size of the foreign State where operators wish to conduct operations.

B.2.2 International Aviation Safety Assessment (IASA) Program. The IASA program was formally established in the Federal Register, Vol. 57, No. 164, August 24, 1992, with the purpose of ensuring that all foreign air carriers operating to or from the U.S., or codesharing with a U.S. carrier, are properly certificated and subject to safety oversight provided by a competent CAA in accordance with ICAO standards. An operator may check to see if the foreign State was reviewed by the FAA's IASA Program. The IASA Program focuses on a country's ability, not the ability of individual air carriers, to adhere to international aviation safety standards and recommended practices contained in

International Convention on Civil Aviation "Chicago Convention" ICAO Doc 7300, Annex I, Personnel Licensing; Annex 6, Operation of Aircraft; and Annex 8, Airworthiness of Aircraft. While the IASA in-country assessment does not focus specifically on instrument procedure design criteria, it is a good reflection of the foreign State's CAA safety oversight. The "IASA Program and Process" and "Results" are published at https://www.faa.gov/about/initiatives/iasa. A foreign State with no published IASA result may mean the foreign State's air carriers no longer provide air service to the U.S., none of the foreign State's air carriers participate in code-share arrangements with U.S. air carriers, or the foreign State's CAA has ceased interacting with the FAA for an extended period.

B.2.3 Foreign State Operator Requirements. The operator should identify that foreign State operator requirements can be met and are acceptable for both instrument procedures and flight operations. Normally a foreign State's AIP will list instrument procedure requirements and criteria exceptions in the ENR 1.5 section, and all other general operation exceptions from ICAO Annexes in the GEN 1.7 section per ICAO Annex 15, Aeronautical Information Services. Aerodrome (AD)-specific operating requirements can be found in the AD section of the foreign State's AIP.

Note: Commercial aeronautical data and chart providers may collect AIP data from foreign States and present it in proprietary formats in lieu of referring to the foreign State's AIP. In some cases, the consolidated information is reproduced onto the affected aeronautical chart or put into a proprietary manual. This appendix references the foreign State's AIP so operators are familiar with the source data/charts, but operators may use the equivalent information provided by an appropriate commercial aeronautical data and chart provider for their review process.

B.2.4 Flight Inspection and Flight Validation. Operators should consider the flight inspection and validation of an FTIP and the periodicity at which they occur. If the foreign State indicates that they follow ICAO Doc 8168, Aircraft Operations, Volume II, Construction of Visual and Instrument Flight Procedures, without exception, then all provisions should be met from Part I, Section 2, Chapter 4, Quality Assurance.

Note: ICAO views flight inspection and flight validation differently than the United States. The United States will accomplish flight validation during the flight inspection process covering both the quality check of the instrument procedure and Navigational Aid (NAVAID). With ICAO, flight validation quality checks the instrument flight procedures and flight inspection is done separately to ensure the appropriate radio navigation aids adequately support the procedure.

B.2.5 Instrument Procedure Publication and Maintenance. Consideration should be given to the FTIP publication and maintenance practices of the foreign State.

B.2.5.1 **Timely Aeronautical Information.** Notice to Airmen (NOTAM) information and updates to AIP information should be accessible and usable in a timely manner.

B.2.5.2 Familiarity with Charts. The operator should be familiar with the foreign State's chart symbology and requirements.

B.2.5.3 Quality Assurance (QA). The foreign State should indicate the procedures are developed in accordance with ICAO Doc 8168 and/or Doc 9905, Required Navigation Performance Authorization Required (RNP AR) Procedure Design Manual. These documents point to each other and outline requirements for a robust QA program.

Note: Commercial aeronautical data and chart providers may consolidate and streamline foreign State NOTAM information and AIP updates in accordance with their own internal standard practices. They may also provide these updates with their own standard charting symbology commensurate with the foreign State charts.

B.2.6 Foreign State CAA Contacts. The operator should contact the foreign State CAA if any questions from the FTIP assessment need clarification. The foreign State contact information can be found in the GEN section of the foreign State's AIP, normally GEN 0.1 and 1.1.

Advisory Circular Feedback Form

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by contacting the Flight Technologies and Procedures Division at 9-AWA-AFS400-Coord@faa.gov or the Flight Standards Directives Management Officer at 9-AWA-AFB-120-Directives@faa.gov.

Subject: AC 120-105B, Foreign Terminal Instrument Procedures (FTIP) Acceptance/Review

Date: _____

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:

_____

_____

☐ In a future change to this AC, please cover the following subject:
(Briefly describe what you want added.)

_____

_____

☐ Other comments:

_____

_____

☐ I would like to discuss the above. Please contact me.

Submitted by: _____ Date: _____