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THE AVIATION STANDARDS INTERNET SITE
– AN OVERVIEW –

AVN INTERNATIONAL FACT SHEET

AVN International Services

The FAA's Aviation Systems Standards organization provides services to countries worldwide. These services are accomplished through reimbursable agreements between the FAA and the requesting country. AVN currently has agreements to perform services for approximately 40 countries around the globe. These services include:

International Survey Assistance Services

AVN International Instrument Flight Procedures

Training

- Development of Instrument Flight Procedures
- Instrument Flight Procedures Review
- Technical Assistance
- Cost of Services

AVN International Flight Inspection

Training

- Flight Inspection Services
- Technical Assistance
- Cost of Services

AVN International Aeronautical Charting Services

AVN International Aircraft Maintenance & Engineering Services

How Do I Request AVN International Services?

- Make Contact with your FAA Representative
- Submit Request
- Sign Agreement
- Receive Services

How Can I Get Additional Information about AVN International Services?

International Survey Assistance Services

Accurate WGS-84 or equivalent data is necessary for the accomplishment of instrument flight procedures development and flight inspection services. Through its partnering arrangements with other U.S. government agencies, AVN can arrange for such services, upon request.

AVN INTERNATIONAL INSTRUMENT FLIGHT PROCEDURES

Training

International instrument flight procedures training is managed through the Transportation Safety Institute. These courses are offered in Oklahoma City each year. Detailed information on course content,

schedules and costs can be obtained by visiting AVN's web site. Countries may also request that certain courses by delivered in their country or region. Requests for this training should be made through the appropriate FAA Representative.

International Instrument Flight Procedures Services

What is an instrument flight procedure?

An instrument flight procedure is a series of predetermined maneuvers allowing for the orderly transition of an aircraft operating under instrument flight rules. (i.e. IFR conditions) This all-encompassing term can be applied equally to instrument approach, instrument departure, and enroute operations.

Departure procedures allow for an orderly transition along a specified route providing obstruction clearances from the point of departure to a position at which enroute operations may be conducted.

Instrument approach procedures allow for the transition from enroute operations to the terminal area of intended landing at the destination airport. The instrument approach procedure is designed utilizing ground or space based system and provides guidance and obstruction clearance to the runway or an altitude from which visual operations may be conducted for landing.

Instrument flight procedures are prescribed and approved for a specific airport by a competent authority. These procedures are particularly critical to flight safety and are designed to ensure continued safe operations during periods of marginal weather/visibility and in areas of adverse terrain.

What instrument flight procedures does AVN develop for the international community?

At the request of a country, AVN can develop any of the following:

- En Route Procedures
- Standard Instrument Departures
- Standard Terminal Arrival Routes
- Instrument Approach Procedures
- Departure Procedures

These procedures can be developed for traditional land based navigational aids (such as VOR, ILS, NDB, etc.) or for satellite based navigational aids (i.e., GPS).

How does avn develop an instrument flight procedure?

The specialist utilizes airport, facility and obstruction data (terrain and man-made) furnished by the country, in the development of the procedure. He/she also takes into consideration any particular design needs requested by the country that meet the criteria specified. Each segment of the procedure is designed and the appropriate forms document the product.

What data is necessary in designing an international flight procedure?

Correct information is vital in the design of a safe procedure. The agreement, between the country and the FAA, clearly defines the responsibility of the country to provide this data. These include obstacle and terrain data, airport/heliport data, facility data, NAVAID data, and runway data. Data, provided in WGS-84 or equivalent datum, are required.

What if we do not have WGS-84 or equivalent data?

At the country's request, AVN can assist countries in attaining the required WGS-84 surveys.

What criteria will be used to develop an international instrument flight procedure?

US Terminal Instrument Procedures (TERPs) criteria is used in the United States and its territories for the design of instrument approach procedures. Many international countries utilize this criteria, as well.

ICAO Procedures for Air Navigation Services (PANS-OPS) criteria is the ICAO criteria for the design of international instrument approach procedures.

The requesting country specifies the standard that they wish to elect for the design of instrument flight procedures by AVN. AVN specialists design procedures using either US TERPs or ICAO PANS OPS criteria.

What shall I expect after the instrument flight procedure is developed?

After an instrument flight procedure is designed and passes the quality review process, it must be certified through flight inspection. After flight inspection, the procedure must be charted and published for use. At the country's request, AVN will perform flight inspection and/or charting under separate reimbursable agreements.

Instrument Flight Procedures Review

AVN performs quality review services of procedures designed by international specialists. These reviews are performed on all types of instrument flight procedures, regardless of whether they are predicated on land based or satellite based NAVAIDS.

Technical Assistance

In addition to instrument flight procedures services, AVN is available to provide expert advice and assistance related to the application of procedures criteria in the design of instrument procedures, upon request.

Cost Of Instrument Flight Procedures Services

The hourly cost for instrument flight procedures services is $117.00 per hour*.

**This quote reflects the current hourly rate. These rates are subject to change. Additional costs for holiday/overtime expended, for travel and per diem costs, or for accommodating other special circumstances may apply.*

AVN INTERNATIONAL FLIGHT INSPECTION

Training

International flight inspection training is managed through the Transportation Safety Institute. The course, which is entitled Airspace System Inspection Pilot/Technician, International, is offered in Oklahoma City each the year. Detailed information on course content, schedules and costs can be obtained by visiting AVN's web site. Countries may also request that certain courses be delivered in their country or region. Requests for this training should be made through the appropriate FAA Representative.

What is Flight Inspection?

Flight inspection is the in-flight evaluation of the signal-in-space performance of ground and space based navigation aids (NAVAIDS). As part of its routine flight inspection procedures, FAA also conducts an airborne evaluation of the Instrument Flight Procedures predicated on those NAVAIDS to assess the flyability and safety of those instrument approaches.

What kind of Flight Inspection Services Are Available?

At a country's request, and in accordance with a reimbursable agreement, AVN can perform one or more of the following types of international flight inspections:

- Commissioning - Initial evaluation of a NAVAID and/or instrument flight procedure.
- Periodic - Ongoing, scheduled quality review of a NAVAID and/or instrument flight procedure.
- Special - An unscheduled inspection requested to ensure the continued integrity of a system's performance.
- Surveillance - A flight inspection that is conducted for the purpose of resolving a frequency interference issue.

How are Flight Inspections Performed?

Flight inspection is performed utilizing one of the FAA flight inspection aircraft that is configured to evaluate the particular system that requires an airborne evaluation. At the conclusion of each inspection, a flight inspection report will be furnished.

What equipment is used?

AVN performs international flight inspection services in two different types of aircraft- the Hawker and the Challenger. The decision on which aircraft will be used to provide services to your country is based on operational considerations, and remains at the discretion of AVN.

Why is data important?

Accurate data is extremely important because most of the analysis is dependent upon knowing the exact position of both the flight inspection aircraft and the facility or procedure which is being evaluated. Signal measurements are often made in hundredths of a degree where the accuracy being off just a few feet could negatively impact the performance status of a facility. The flight inspection agreement will specify required data for flight inspections by the FAA.

Why are periodic inspections necessary?

Changes may occur in the environmental conditions and facility performance that can impact aviation safety. Periodic inspections ensure the continued integrity of a commissioned facility or procedure.

How is scheduling done for international missions under an agreement?

AVN is committed to providing the most efficient flight inspection service. This is done through effective scheduling and aircraft routing to ensure the minimum cost to our international customers.

The International Flight Inspection Office, located in Oklahoma City, is responsible for the formulation and management of all flight inspection itineraries to accomplish international workload requests. Periodic inspections are done in accordance with specified intervals. Some countries prefer a "will call" or "on demand" schedule while others accept the intervals the FAA prescribes for its own facilities and procedures.

Technical Assistance

In addition to flight inspection services, AVN is available to provide expert advice and assistance related to flight inspection policy and procedures, upon request.

Cost of Flight Inspection Services

The flight hour costs for AVN flight inspection services are as follows:

- Hawker- $2352.00 per flight hour*
- Challenger- $2992.50 per flight hour*

**These quotes reflect the current flight hour rate. Flight hour costs are subject to change. Additional costs for holiday/overtime expended, shipment of special equipment, or for accommodating special circumstances may apply.*

AVN INTERNATIONAL AERONAUTICAL CHARTING SERVICES

What is an aeronautical chart?

A chart is a graphic depiction of certain aeronautical information for aviation users.

What types of aeronautical charts are produced for international customers?

Upon request, AVN produces the following aeronautical charts for international countries:

- Standard Instrument Approach Procedures
- Standard Terminal Arrival Routes
- Departure Procedures
- Charted Visual Flight Procedures
- Airport Diagrams

What format will be used for the production of international charts?

AVN charting services will include all Instrument Approach Procedure Charts in the standard format, in accordance with Interagency Air Cartographic Committee (IACC) specifications.

What medium will these charts be provided in?

An international customer may request that charts be provided in one of the following mediums:

- Digital files in a .pdf format on CD ROM or via FTP server
- Negatives
- Hardcopy (copy whites/contact prints)

What data will be required for AVN to produce these charts?

The charting of instrument flight procedures is restricted to those procedures that have been developed by the FAA. In order to complete these charts, accurate data must be provided, in English, by the requesting country. These may include airport, obstacle, communication, fix, special use and terrain data.

Who is responsible for the publication, distribution and use of international aeronautical charts produced by the FAA?

The requesting country is responsible for taking all actions to adopt an instrument flight procedure. This includes actions regulating the airspace affected by an instrument flight procedure; providing notices through appropriate publications and authorities; publication in the Aeronautical Information Publication (AIP) or other country publications; updating the charts to comply with any changes to the instrument procedures and approving operational use.

Technical Assistance

In addition to aeronautical charting services, AVN is available to provide expert advice or assistance related to the production of aeronautical charts, upon request.

Cost of Aeronautical Charting Services

Aeronautical charting services will vary depending on the type of chart and the format desired. Estimates for the charting services can be provided upon request.

AVN INTERNATIONAL AIRCRAFT MAINTENANCE AND ENGINEERING SERVICES

What international aircraft maintenance and engineering services does AVN provide?

AVN offers a wide range of aircraft maintenance and engineering services to the international community. These include:

- Installation/fabrication of flight inspection aircraft and avionics systems/components
- Scheduled aircraft/engine maintenance and inspections
- Non Routine aircraft maintenance
- Major repairs

All services provided in accordance with FAR 145

Which aircraft will AVN provide maintenance and engineering services on?

AVN's highly trained professionals provide services on the following types of aircraft:

- Beech King Air family
- BAe 125-800
- Lear 60
- Challenger 601

Where will these services be provided?

Although the majority of aircraft maintenance and engineering services are done in Oklahoma City, some services may be available at the customer's location.

Technical Assistance

In addition to aircraft maintenance and engineering services, AVN is available to provide expert advice and assistance related to the repair and maintenance of flight inspection aircraft and avionics systems, upon request.

Cost of Aircraft Maintenance and Engineering Services

Aircraft maintenance and engineering costs will vary depending on the complexity of the service required and the type of aircraft upon which these services will be performed. Estimates are available upon request

REQUESTING INTERNATIONAL SERVICES

Step 1: Contact your FAA Regional Representative

FAA representatives around the world are available to speak with you about FAA international services that you desire. They can also assist you with submitting the required paperwork to initiate your request.

Step 2: Submit A Request

When requesting AVN services certain information is vital. A request for services must be made, in writing, by an appropriate government official, representing the country. The requirements must be specifically identified so that FAA can determine its response. The FAA representative can ensure that you provide the necessary information to allow AVN to consider your request.

Step 3: Sign An Agreement

If the FAA determines that it can provide the service requested, an agreement must be completed between the FAA and the international government. This contractual agreement defines the task, obligations of both parties, and liability and billing issues. Agreements become effective when signatures from both parties are obtained. These agreements remain in effect until terminated by one of the parties. In the case of a one-time agreement, the agreement terminates when the task is completed. The Office of International Aviation is responsible for the implementation of such agreements.

Step 4: Receive Services

AVN will provide the services and the requesting country will be billed for payment in accordance with the signed agreement.

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AVN-200 FLIGHT INSPECTION OPERATIONS INFORMATION ONLINE

Directives, Changes & Notices Available	
FAA Order 8200.1A (including Changes 1-4) (3218K) OPR: AVN-230 U.S. Standard Flight Inspection Manual.	This order (including Changes 1 - 4) contains the policy, procedures, and criteria for flight inspection and certification of air navigation services, including the instrument flight procedures they support. The order applies to the flight inspection of all National Airspace (NAS) and DOD air navigation services and instrument flight procedures. (Basic Order dated 5/96, Change 1 dated 9/97, Change 2 dated 8/98, Change 3 dated 7/00, and Change 4 dated 6/01)
FAA Order 8200.3 (13K) OPR: AVN-230 Policy With Respect to Military Program Procedures for Flight Inspection of Foreign-Owned Air Navigation Facilities.	This order, dated 2/13/98, establishes AVN policy for the management of international flight inspection activities conducted by the FAA on foreign-owned air navigational aids (NavAids) designated as essential to U.S. military operations, and the systematic review of those activities.
FAA Order 8200.39 (618K) OPR: AVN-230 Flight Inspection of Precision Runway Monitors/Final Monitor Aid Display Systems.	This order, dated 9/8/98, prescribes the procedures for flight inspecting precision runway monitors (PRM) and final monitor aid displays (FMAD). Click on the PRM Worksheet icon and save the file to your hard drive (or floppy) for your use or change your preferences/helpers on your browser to recognize the file and open it from its current location.
FAA Order 8200.40a (231K) OPR: AVN-230 Flight Inspection of the Transponder Landing System (TLS).	This order, dated 1/15/01, details the flight inspection procedures, requirements, and analysis for the evaluation of the Transponder Landing System (TLS).
FAA Order 8200.41 (199K) OPR: AVN-230 Flight Inspection Evaluation of DGNSS Special Category (SCAT-1) Instrument Approaches Using Private Ground Facilities.	This order, dated 11/6/98, details the flight inspection procedures, requirements, and analysis for the evaluation of Special (not for public use) Category I (SCAT-1) precision instrument approach procedures utilizing private Differential Global Navigation Satellite System (DGNSS) ground reference systems.

Directives, Changes & Notices Available	
VN Order 8240.3A (30K) OPR: AVN-210 Certification of Flight Inspection Personnel.	This order, dated 5/6/98, establishes procedures for the certification of flight inspection personnel IAW Order 8200.1, United States Standard Flight Inspection Manual.
FAA Order 8240.32H (6K) OPR: AVN-210 Request for Flight Inspection Services.	This order, dated 9/30/96, establishes a single point of contact for requesting flight inspection services.
FAA Order 8240.36H (Changes 1 & 2) (2364K) OPR: AVN-230 Instructions for Flight Inspection Reporting.	This order (including Changes 1 & 2) establishes a single point of contact for requesting flight inspection services. (Basic order dated 7/00; Change 1 dated 6/01, Change 2 dated 7/01).
FAA Order 8240.41B (59K) OPR: AVN-210 Flight Inspection/Air Traffic On-Site Coordination Requirements.	This order, dated 3/9/98, outlines flight inspection procedural and communication requirements and depicts flight maneuvers for flight inspection of Terminal Navigational Aids, to provide for standardized communications between Flight Inspection and Air Traffic personnel.
FAA Order 8240.47C (100K) OPR: AVN-230 Determination of ILS Glidepath Angle, RDH, and GPI.	This order, dated 3/1/01, prescribes the method by which the actual flight inspection glidepath angle, instrument landing system (ILS) reference datum height (RDH), achieved ILS reference datum height (ARDH), and ground point of intercept (GPI) are determined.

ALL OF THIS INFORMATION – and MORE – IS AVAILABLE AT:

http://mmac.jccbi.gov/avn