INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO)

AND

THE AIRCRAFT CERTIFICATION SERVICE

A GUIDE TO AIRCRAFT AIRWORTHINESS RESPONSIBILITIES FROM THE ICAO CONVENTION AND RELATED ANNEXES

Prepared by AIR-4
April 1999

PREFACE

In today's global aviation environment, it is important to keep in mind the rights and obligations that countries throughout the world have agreed to observe in matters of civil aviation. These rights are defined by ICAO.

This document is designed to present general overview information on ICAO and its relevance to our work as employees of the Aircraft Certification Service (AIR). A short description of how the United States meets ICAO's standards related to aircraft airworthiness is also provided. The purpose of this document is to assist AIR field personnel to understand that the FAA cannot act "extraterritorially" in a manner that might infringe on the rights of another ICAO contracting state. We have an obligation to ensure that the rights of a State of Registry and a State of Operator are honored prior to the modification of any aeronautical products. Moreover, as the regulatory body overseeing the largest aeronautical manufacturing industry in the world, we must also ensure that timely notification of continued airworthiness actions is provided to all per ICAO guidance.

Additional information about ICAO can be obtained from the Internet (www.icao.org) or from the ICAO Publications Office, 999 University Street, Montreal Quebec, Canada H3C5H7.

Comments and suggestions on this document are welcome and should be submitted to AIR-4, Room 818, FAA headquarters.

Mary Cheston
Manager, International Airworthiness Programs Staff

TABLE OF CONTENTS

This page was intentionally left blank.

International Civil Aviation Organization - ICAO

ICAO -- What is it?

ICAO, the International Civil Aviation Organization, is one of the specialized agencies of the United Nations. The 1944 *Convention on International Civil Aviation* was signed in Chicago by 52 countries (member States), but didn't officially come into being until 1947, when the 26th State ratified the Convention. There are currently 185 member States. (See Appendix 1.)

Why is it important?

ICAO:

- Is a global body charged with the safety of and development of standards for international civil aviation;
- Sets international standards for safety and security;
- Provides a global forum for international aviation issues.

What are the aims and objectives of ICAO?

Article 44 of the Convention states that the aims and objectives of ICAO are to develop the principles and techniques of international air navigation and to foster the planning and development of international air transport.

How is ICAO organized?

ICAO is composed of:

- An Assembly, composed of representatives from all contracting States. The Assembly normally meets every 3 years, votes a triennial budget, and sets the work program for the next triennium.

- A Council, the governing body composed of 33 States, elected by the Assembly for three-year terms. (The U.S. has always been elected to the Council.) The Council establishes Standards and Recommended

Practices and incorporates them into Annexes to the Convention. The Council is headed by an elected President, who also serves for three years.

- The Secretariat, headed by a Secretary General and divided into five bureaus -- Air Navigation, Air Transport, Technical Co-Operation, Legal, and Administration and Services.

- The headquarters of ICAO is located in Montreal, Canada. In addition, there are seven ICAO regional offices -- in Bangkok, Cairo, Dakar, Lima, Mexico City, Nairobi, and Paris. (See p. 5.)

How does the FAA interface with ICAO?

The U.S. participates directly in most aspects of ICAO. The U.S. maintains a permanent U.S. Mission at ICAO Headquarters in Montreal and participates in all technical panels and most global and regional meetings.

The FAA's Office of International Aviation (AIA) coordinates most interactions between the FAA and ICAO through the Interagency Group on International Aviation (IGIA), which is administered by AIA. IGIA coordinates and clears the U.S. position on issues of international aviation. AIA advances U.S. regulatory and technical objectives through the U.S. Mission and ICAO

Other FAA Offices provide direct ongoing support to ICAO's technical, policy, audit and assistance efforts.

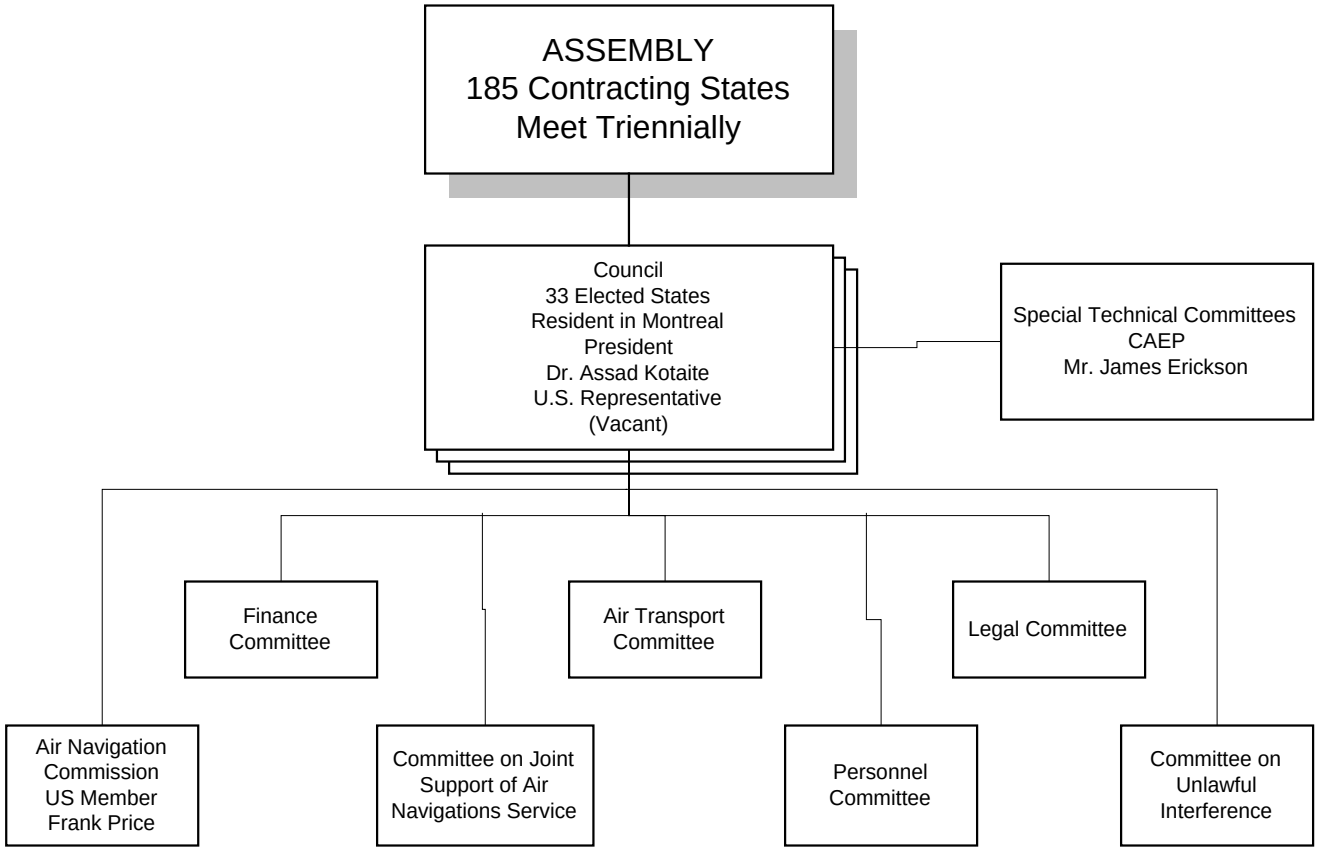
What is the Air Navigation Commission?

Chapter X of the Convention establishes an Air Navigation

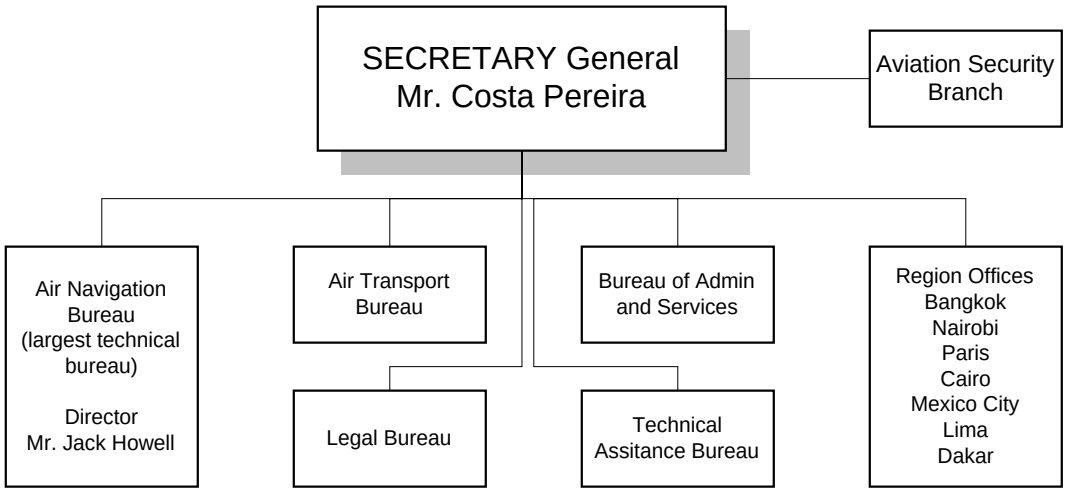
Commission (ANC) composed of 15 persons who have “suitable qualifications and experience in the science and practice of aeronautics.” All members of the ANC, including the U.S. member, are independent technical experts, and do not represent their respective countries.

The ANC is responsible for the examination, coordination, and planning of all ICAO’s work in the air navigation field and recommends to the Council amendments to the Standards and Recommended Practices contained in the Annexes of the Convention. It is assisted in this work by an internationally recruited technical secretariat of ICAO’s Air Navigation Bureau and by panels of experts. Several AIR employees serve on these panels (e.g., Continuing Airworthiness (CAP), Aeronautical Telecommunications Network (ATNP), Global Navigation Satellite Systems (GNSSP), and Aeronautical Mobile Communication Panel (AMCP)).

REPRESENTATIVE BODIES OF ICAO



ICAO Secretariat



The Chicago Convention and Its Annexes

What is the "Chicago Convention"?

The Chicago Convention is the legal instrument that established ICAO.

What are Annexes?

Over the years, the ICAO Council has developed and adopted 18 technical Annexes to the Convention. Article 37 of the Convention charges ICAO with establishing International Standards and Recommended Practices (SARP's). These SARP's are incorporated as Annexes to the Convention. A Standard is a specification the uniform application of which is necessary for the safety or regularity of international civil air navigation. A Recommended Practice is a practice that is agreed to be desirable but not essential.

What are the subjects of these Annexes?

Annex 1 – Personnel Licensing. Licensing of flight crews, air traffic controllers and aircraft maintenance personnel.

Annex 2 – Rules of the Air. Rules relating to the conduct of visual and instrument flights.

Annex 3 – Meteorological Service for International Air Navigation. Provision of meteorological services for international air navigation and reporting of meteorological observations from aircraft.

Annex 4 – Aeronautical Charts. Specifications for aeronautical charts for use in international aviation.

Annex 5 -- Units of Measurement to be Used in Air and Ground Operations.

Annex 6 – Operation of Aircraft. Specifications which will ensure in similar operations throughout the world at a level of safety above a prescribed minimum. Note: ICAO is considering merging this Annex with Annex 8.

Annex 7 – Aircraft Nationality and Registration Marks. Requirements for registration and identification of aircraft.

Annex 8 – Airworthiness of Aircraft. Certification and inspection of aircraft according to uniform procedures. Note: ICAO is considering merging this Annex with Annex 6.

Annex 9 – Facilitation. Specifications for expediting the entry and departure of aircraft, people, cargo, and other articles at international airports.

Annex 10 – Aeronautical Telecommunications. Standardization of communications equipment, systems, and procedures.

Annex 11 -- Air Traffic Services. Establishment and operation of air traffic control, flight information, and alerting services.

Annex 12 – Search and Rescue. Organization and operation of facilities.

Annex 13 – Aircraft Accident Investigation. Uniformity in the notification, investigation of, and reporting on aircraft accidents.

Annex 14 – Aerodromes. Specifications for the design and operations of aerodromes.

Annex 15 – Aeronautical Information

Services. Methods for the collection and dissemination of aeronautical information required for flight operations.

Annex 16 – Environmental Protection. Specifications for aircraft noise certification, noise monitoring, and noise exposure units for land-use planning and aircraft engine emissions.

Annex 17 – Security – Safeguarding International Civil Aviation against Acts of Unlawful Interference. Specifications for safeguarding international civil aviation against acts of unlawful interference.

Annex 18 -- The Safe Transport of Dangerous Goods by Air. Specifications for the labeling, packing, and shipping of dangerous cargo.

How are Annexes changed?

Adoption of amendments to Annexes requires a 2/3 vote by the Council, then submission to each of the contracting States. Typically, the amendments become effective within three months of Council approval, unless disapproved by a majority of the contracting States during that time.

What happens if a contracting State disagrees with a change?

Contracting States are expected to implement SARPs unless a particular State gives notice to ICAO that it is unable to comply because a SARP conflicts with State regulations. ICAO publishes these “differences” in Supplements to Annexes. For example, ICAO Annex 8, as amended, currently requires at Paragraph 4.2.2.(a) that the State of Design shall ensure that, for aeroplanes over 5,700 kg, “there exists a continuing structural integrity programme to ensure the airworthiness of the aeroplane. The

programme shall include specific information concerning corrosion prevention and control." The U.S. notified ICAO, and ICAO has published the "difference," that the U.S. only requires the continuing structural integrity programme to contain specific information concerning corrosion prevention and control for 14 CFR 121 operators.

When other signatory States do not accept differences submitted by a State, that condition may limit that State's acceptance of type and operation of aircraft.

What are the most relevant Annexes to aircraft certification?

Annexes 6, 8, 10, 13, and 16 are most relevant to the Aircraft Certification Service (AIR). Annex 8, *Airworthiness of Aircraft*, is the baseline for international certification of products and of greatest interest to AIR.

What guidance materials support the Standards and Recommended Practices defined in the Annexes?

ICAO documents which contain material relating to airworthiness include:

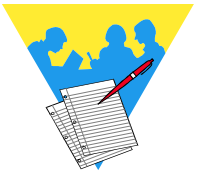
- *Continuing Airworthiness Manual* (Doc 9642);
- *Manual of Procedures for Operations Certification and Inspection* (Doc 8335);
- *Manual of Procedures for an Airworthiness Organization* (Doc 9389); and
- *The Continuing Airworthiness of Aircraft in Service* (Circular 95).

Categories of ICAO States

ICAO defines the rights and obligations of its member States using very specific terms. The following is a definition of these categories of States.

Contracting State:

A member State of ICAO. At the present time, there are 185 Contracting States in ICAO.



The State of Design:

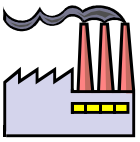
The State having jurisdiction over the organization responsible for the type design.

- Ensures that a product's design meets the State of Design's airworthiness standards;
- Transmits Mandatory Continuing Airworthiness Information (MCAI) to other Contracting States.

The State of Manufacture:

The State having jurisdiction over the organization responsible for the final assembly of the aircraft.

- Cooperates with the State of Design to assess information received about an aircraft's operating experience.



The State of Occurrence:

The state in which an aviation accident or incident occurs.

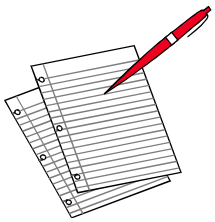
The State of the Operator :

The State in which the aircraft operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

- Ensures that the operator's organization, method of control

and supervision of flight operations, training program, and maintenance arrangements are satisfactory.

The State of Registry: The State on whose register an aircraft is entered.



- Determines an aircraft's continuing airworthiness;
- Ensures an aircraft's continued airworthiness during its service life;

It is important to recognize, unless a transfer of oversight responsibilities has occurred under Article 83 bis (see page 39), that under ICAO the State of Registry is the accountable and lead organization in matters of international civil aviation involving aeronautical products.

As a country where aircraft are designed, manufactured, registered and operated, all of the above categories apply to the United States.

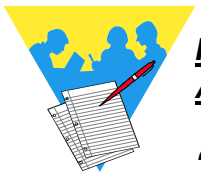
The following sections outline the specific requirements of ICAO SARP's of interest to the Aircraft Certification Service by State category (beginning in each section with the requirements for All Contracting States).

This page was intentionally left blank.

AIRCRAFT AIRWORTHINESS RESPONSIBILITIES

FROM THE ICAO CONVENTION

AND RELATED ANNEXES



ICAO Requirement for All Contracting States

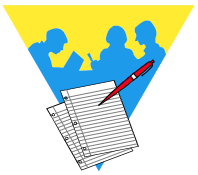
"A Contracting State shall not issue or render valid a Certificate of Airworthiness ... unless the aircraft complies with a comprehensive and detailed national airworthiness code established for that class of aircraft by the State of Registry or by any other Contracting State. This national code shall be such that compliance with it will ensure compliance with ... the Standards ... of this Annex ... Where the design features of a particular aircraft render any of the Standards ... inapplicable or inadequate, variations ... may be made." *(Annex 8, Part II, Paragraph 2.2)*

U.S. Implementation

The U.S. national airworthiness code is Title 14 of the Code of Federal Regulations (CFR), the Federal Aviation Regulations.

Issuance of a Standard Airworthiness Certificate in the U.S. first requires a U.S. Type Certificate. In order to receive a Type Certificate under 14 CFR §§ 21.21 or 21.29, the applicant must meet the requirements of the applicable U.S. Federal Aviation Regulations.

"The FAA does not issue airworthiness certificates, nor grant approvals, for aeronautical products manufactured in a State with which the U.S. does not have a bilateral agreement for the kinds of products concerned." (See FAA Advisory Circular 21-23.)



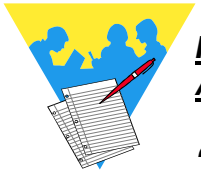
ICAO Requirements for All Contracting States

"The Certificate of Airworthiness shall be issued by the Contracting State which approves the aircraft ... on the basis of satisfactory evidence that the aircraft complies with the appropriate airworthiness requirements. Except when Certificates of Airworthiness are issued [as a change in the State of Registry], that State ... shall obtain such evidence in the manner prescribed [below]. *(Annex 8, Part II, Paragraph 3.1)*

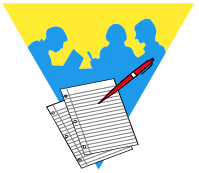
U.S. Implementation

Under 14 CFR § 21.183(c), U.S. type-certificated aircraft, imported under 14 CFR § 21.29 are "entitled to an airworthiness certificate if the [State of Manufacture] certifies ... that the aircraft conforms to the type design and is in condition for safe operation."

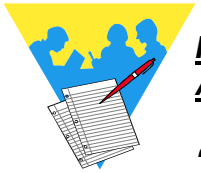
FAA is required by law to make a finding that the aircraft conforms to an FAA approved type certificate (TC), and that it is in a condition for safe operation before the FAA issues an airworthiness certificate for that aircraft. The FAA may base its findings, wholly or partially, on a certification (e.g., an export certificate of airworthiness) issued by the Civil Aviation Authority of another country, provided a bilateral agreement exists. (See FAA Order 8130.2, Paragraph 213.)



ICAO Requirement for All Contracting States	U.S. Implementation
"There shall be an approved design consisting of such drawings, specifications, reports and documentary evidence as are necessary to show that the aircraft complies with the appropriate airworthiness requirements. Records shall be maintained to establish the identification of the aircraft with its approved design." *(Annex 8, Part II, Paragraph 3.1.1.)*	To comply with the appropriate airworthiness requirements, 14 CFR §§ 21.21 and 21.31 state that the applicant must submit the type design (consisting of the drawings and specifications necessary to define the configuration), test reports and computations necessary to "show that the product to be certificated meets the applicable airworthiness, aircraft noise, fuel venting, and exhaust emission requirements ..." With respect to identification records, 14 CFR § 21.182 requires that "each applicant for an airworthiness certificate ... must show that his aircraft is identified in accordance with 14 CFR § 45.11." The approved design is defined in FAA Type Certification Data Sheets. (See FAA Order 8110.4, "*Type Certification Process*.")
"During the course of construction, the aircraft shall be inspected in accordance with a system of inspection approved by the State to determine that it conforms in all essential respects with the approved design, and that its construction and assembly are satisfactory." *(Annex 8, Part II, Paragraph 3.1.2)*	14 CFR § 21.33(b) states that "Each applicant must make all inspections and tests necessary to determine… (2) That materials and products conform to the specifications in the type design; (3) That parts of the products conform to the drawings in the type design; and (4) That the manufacturing processes, construction and assembly conform to those specified in the type design." Production inspection systems are approved under 14 CFR, part 21, subparts F and G.



ICAO Requirement for All Contracting States	U.S. Implementation
The aircraft shall be subjected to such flight tests as are deemed necessary ... to show compliance with the appropriate airworthiness requirements. *(Annex 8, Part II, Paragraph 3.1.3)*	14 CFR § 21.35(b) states that "the applicant must make all flight tests that the Administrator finds necessary ... To determine the compliance with the applicable requirements of [14 CFR Part 21]. 14 CFR § 21.127 provides for flight testing of production aircraft.
Each aircraft shall be provided with a flight manual, placards, or other documents stating the approved limitations within which the aircraft is considered airworthy ... and additional instructions and information necessary for the safe operation of aircraft. *(Annex 8, Part II, Paragraph 8)*	14 CFR § 91.9(b) states that "No person may operate a U.S. registered civil aircraft ... unless there is available in the aircraft a current, approved [Aircraft] Flight Manual ..." Additionally, the [Aircraft] Flight Manual must contain "Other information that is necessary for safe operation because of design, operation, or handling characteristics." (See 14 CFR §§ 23.1581, 25.1581, 27.1581, and 29.1581.) Each aircraft must contain specified markings and placards, as well as "Any additional information, instrument markings, and placards required for the safe operation of the [aircraft if it has] unusual design, operating, or handling characteristics." (See 14 CFR §§ 23.1541, 23.1585, 25.1541, 25.1585, 27.1541, 27.1585, and 29.1541, 29.1585, 31.81, 35.5)



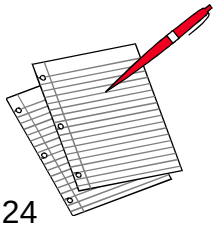
ICAO Requirement for All Contracting States	U.S. Implementation
"The Standards ... shall apply to aeroplanes of over 5,700 kg ... intended for the carriage of passengers or cargo or mail in international air navigation." *(Annex 8, Part III,)*	14 CFR Parts 23 and 25 prescribe airworthiness standards for airplanes. 14 CFR Parts 33 and 35 prescribe airworthiness standards for the engines and propellers on these airplanes.
"The Standards ... shall apply to helicopters intended for the carriage of passengers or cargo or mail in international air navigation." *(Annex 8, Part IV,)*	14 CFR Parts 27 and 29 prescribe airworthiness standards for rotorcraft. 14 CFR Parts 33 and 35 prescribe airworthiness standards for the engines and propellers on these rotorcraft.

ICAO Requirement for State of Registry

Noise certification shall be granted or validated by the State of Registry of an aircraft on the basis of satisfactory evidence that the aircraft complies with requirements which are at least equal to the applicable Standards specified in the Annex.

Note. -- The documents attesting noise certification may take the form of a separate Noise Certificate or a suitable statement contained in another document approved by the State of Registry and required by that State to be carried in the aircraft. *(Annex 16, Part II, Paragraph 1.2)*

U.S. Implementation



Noise certification of all aircraft is required by the FAA as described in 24 CFR § 21.183(e), This certification is conducted in accordance with 14 CFR Part 36.

14 CFR § 36.1501(a) requires that "Noise levels achieved during type certification must be included in the approved airplane (rotorcraft) flight manual." The FAA does not issue a separate noise certification.

14 CFR § 91.9(b) states that "No person may operate a U.S. registered civil aircraft ... unless there is available in the aircraft a current, approved Airplane or Rotorcraft Flight Manual ...)

TRANSFERS OF ICAO RESPONSIBILITIES WHEN THERE IS A CHANGE TO THE ORGANIZATION RESPONSIBLE FOR TYPE DESIGN

ICAO Requirement for State of Design

ICAO guidance, rather than the annexes themselves, describe the responsibilities of states in situations where a type certificate or equivalent will pass from one holder to another. These practices are based on ensuring the transmittal of continuing airworthiness information by a responsible, competent organization--the "organization responsible for the type design" of an aircraft." (Annex 8, Part II, Paragraph 4.2.4)

Note. -- *Guidance on interpretation of "the organization responsible for the type design" is contained in the Airworthiness Technical Manual (Doc 9051). This organization "will be in possession of the type design and type certification data and have the competence to use that data as necessary for the continuing airworthiness of the aircraft."*

U.S. Implementation

Under 14 CFR § 21.47, a type certificate may be transferred (or made available to third persons by licensing agreements). The grantor is required to notify the appropriate Aircraft Certification Office of the name and address of the proposed transferee. Additional guidance is pending on conditions necessary for FAA recognition of the transfer of certificates outside the United States.

Under 14 CFR § 21.50, the holder of a design approval is required to maintain Instructions for Continued Airworthiness and to make those instructions available to any person required to comply with those instructions.

ICAO Requirement for All Contracting States

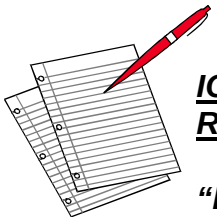
"...States ... shall take whatever other steps they deem necessary to ensure that the Certificate of Airworthiness is withheld if the aircraft is known or suspected to have dangerous features not specifically guarded against by those requirements." *(Annex 8, Part II, Paragraph 3.3)*

The Certificate of Airworthiness shall contain the information indicated in the [form shown in Figure 1], and shall be generally similar to it ..." *(Annex 8, Part II, Paragraph 7)*

U.S. Implementation

Regulations throughout 14 CFR Part 21, Subpart H, state that the aircraft must conform to the type design and "is in a condition for safe operation" in order to receive an FAA Certificate of Airworthiness.

FAA Form 8100-2, "*Standard Airworthiness Certificate*," contains the information indicated on the referenced ICAO form and is similar to it.



ICAO Requirements for State of Registry

"Every aircraft engaged in international navigation shall be provided with a certificate of airworthiness issued or rendered valid ..." *(ICAO Convention, Article 31)*

"When an aircraft possessing a valid Certificate of Airworthiness ... is entered on the register of another Contracting State, the new State of Registry ... may consider prior issuance of the Certificate of Airworthiness by a Contracting State as satisfactory evidence, in whole or in part, that the aircraft is airworthy ..." "Note. -- This applies both when the aircraft is registered for the first time and when the aircraft changes its nationality." *(Annex 8, Part II, Paragraph 3.2)*

U.S. Implementation

The FAA issues airworthiness certificates in accordance with 14 CFR Part 21, Subpart H, for U.S. registered aircraft. (See § 21.173.)

U.S. type-certificated aircraft, imported under 14 CFR § 21.29, are "entitled to an airworthiness certificate if the [State of Manufacture] certifies, and the Administrator finds, that the aircraft conforms to the type design and is in condition for safe operation." (See 14 CFR § 21.183(c).)

The "FAA is required ... to make a finding that the aircraft conforms to an FAA-approved TC, and that it is in a condition for safe operation before the FAA issues an airworthiness certificate for that aircraft. The FAA may base its findings, wholly or partially, on a certification (e.g., an export C of A) issued by the CAA of another country, provided a BAA exists." (See FAA Order 8130.2, Paragraph 213.)

ICAO Requirement for All Contracting States

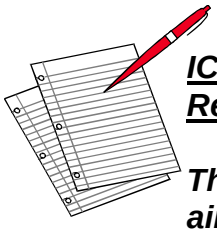
When aircraft are involved in international commercial operation:

"All modifications and repairs shall be shown to comply with airworthiness requirements acceptable to the State of Registry. Procedures shall be established to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained." *(Annex 6, Part I, Paragraph 8.6)*

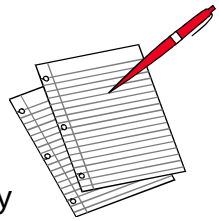
U.S. Implementation

Policy is under development to address how FAA-approved modifications of foreign registered aircraft are coordinated with the State of Registry.

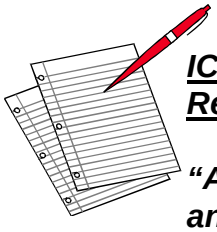
Under 14 CFR 121.379 and 121.380, U.S. operators are required to ensure that modifications and repairs meet FAA's requirements. Under 14 CFR 129.14, foreign operators of U.S. registered aircraft must ensure that aircraft are maintained in accordance with FAA requirements.



ICAO Requirement for State of Registry	U.S. Implementation
The continuing airworthiness of an aircraft shall be determined by the State of Registry in relation to the appropriate airworthiness requirements in force for that aircraft.	U.S. aircraft owners are expected to maintain and operate their aircraft in accordance with the aircraft's Instructions for Continued Airworthiness. (See 14 CFR §§ 43.13, 91.7 and 91.403.)
The State of Registry shall develop or adopt requirements to ensure the continued airworthiness of the aircraft during its service life. *(Annex 8, Part II, Paragraphs 4.1(a) and (b))*	To certify an aircraft in the U.S., an applicant must prepare Instructions for Continued Airworthiness or develop a program to ensure their completion prior to delivery of the first aircraft. (See 14 CFR §§ 21.50, 23.1529, 25.1529, 27.1529, and 29.1529, 31.82, 33.4 and 35.4.) In addition to the requirement to prepare Instructions for Continued Airworthiness listed above, the FAA publishes an Airworthiness Directive (AD's) when an unsafe condition is found. (See 14 CFR Part 39 and FAA Order 8040.1, "Airworthiness Directives.")
Any ... State which has entered on its register an aircraft [for which it] is not the State of Design and for which it has issued or validated a Certificate of Airworthiness ... shall ensure the transmission to the State of Design of all mandatory continuing airworthiness information [regarding] that aircraft. *(Annex 8, Part II, Paragraph 4.2.4)*	For aircraft designed outside the U.S., the FAA publishes AD's when an unsafe condition is found and prohibits operation of an aircraft in the U.S. without compliance to all appropriate AD's. U.S. AD's for foreign products are sent first to the State of Design and then to other interested parties.



ICAO Requirements for State of Registry	U.S. Implementation
The State of Registry shall ensure that [for aircraft] over 5,700 kg ... there exists a system whereby information on faults, malfunctions, defects and other occurrences [that] might cause adverse effects on the continuing airworthiness of the aircraft is transmitted to the organization responsible for the type design ... *(Annex 8, Part II, Paragraph 4.2.5)*	Aircraft operators are required to notify the FAA of any failures, malfunctions, or defects under 14 CFR §§121.703 and 121.705. The FAA requires all holders of Type Certificates, Supplemental Type Certificates, Parts Manufacturer Approvals or Technical Standard Order authorizations (regardless of aircraft weight) to submit any failure, malfunction, or defect in their products, parts, processes or articles as described in 14 CFR § 21.3. The FAA shares information on in-service difficulties for foreign products with the State of Design.
A Certificate of Airworthiness shall be renewed or shall remain valid ... provided that the State of Registry shall require that the continuing airworthiness of the aircraft shall be determined by a periodical inspection ... or, alternatively by means ... approved by the State, which will produce at least an equivalent result. *(Annex 8, Part II, Paragraph 5.1)*	FAA Airworthiness Certificates remain valid as along as the maintenance, preventative maintenance and alterations are performed in accordance with 14 CFR Parts 43 and 91 and the aircraft are registered in the U.S. Instructions for Continued Airworthiness are required from each applicant and must include “an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the [aircraft]. (See 14 CFR §§ 21.50, 21.181, 23.1529, 25.1529, 27.1529, and 29.1529, 31.82, 33.4, and 33.4) Specific periodic inspections are also required by 14 CFR § 91.409.



ICAO Requirements for State of Registry	U.S. Implementation
"Any failure to maintain an aircraft in an airworthy condition as defined by the appropriate airworthiness requirements shall render the aircraft ineligible for operation until the aircraft is restored to an airworthy condition." *(Annex 8, Part II, Paragraph 6.1)*	"...Airworthiness certificates are effective as long as the aircraft is safe for flight and meets type design or is in a properly altered state. This includes that all inspections, maintenance, preventive maintenance, and alterations are performed in accordance with Parts 43 and 91 ..." (14 CFR, § 21.181(a)(1))
When a State of Registry renders valid a Certificate of Airworthiness issued by another ... State, as an alternative to issuance of its own Certificate of Airworthiness, it shall establish validity ... *(Annex 8, Part II, Paragraph 5.2.)*	The FAA does not "render valid a Certificate of Airworthiness issued by another Contracting State." Rather, the FAA issues its own Certificate of Airworthiness. See 14 CFR § 21.173.
Each ... State shall establish, [for] aircraft over 5,700 kg maximum certificated take-off mass, the type of service information that is to be reported ... by operators, organizations responsible for type design and maintenance organizations. Procedures for reporting this information shall also be established. *(Annex 8, Part II, Paragraph 4.2.8)*	Service information that must be reported is identified in 14 CFR § 21.3. Procedures are contained in Order 8010.2, "*Flight Standards Service Difficulty Program.*"

ICAO Requirements for State of Design	U.S. Implementation
The State of Design of an aircraft shall transmit any generally applicable information ... for the continuing airworthiness ... and for the safe operation ... to every ... State which has ... advised the State of Design that it has entered the aircraft on its register; and ... to any other ... State upon request. *(Annex 8, Part I, Paragraph 4.2.2)*	The FAA shares its AD's with all bilateral partner countries. The FAA has filed an official difference to this paragraph with ICAO: "The United States transmits mandatory continuing airworthiness information to those States that request it ."
The State of Design shall ensure that, [for] aircraft over 5,700 kg maximum certificated take-off mass, there exists a system for ... receiving information [regarding faults, malfunctions, defects, etc.]; ... deciding if and when airworthiness action is needed; ... developing the necessary airworthiness actions; and ... promulgating the information on those actions ... *(Annex 8, Part II, Paragraph 4.2.6)*	14 CFR § 21.3 requires reporting of failures, malfunctions and defects. The FAA has a service difficulty reporting program to receive the information for all aircraft regardless of weight. This program is described in FAA Order 8010.2, "*Flight Standards Service Difficulty Program*;" FAA Order 8120.2A, "*Production Approval and Surveillance Procedures*," Chapter 10; and FAA Order 8100.5, "*Aircraft Certification Directorate Procedures*," Chapter 7. Design deficiencies and/or deficiencies in the manufacturer's quality control/inspection system are investigated. "If justified, airworthiness directive action should be recommended ..." (See FAA Order 8120.2A and FAA Order 8100.5.)

ICAO Requirement for State of Design

The State of Design shall ensure that, [for airplanes] over 5,700 kg maximum certificated take-off mass, there exists a continuing structural integrity programme to ensure the airworthiness of the [airplane]. The programme shall include specific information concerning corrosion prevention and control. *(Annex 8, Part II, Paragraph 4.2.7)*

U.S. Implementation

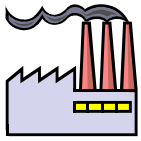
The FAA meets the requirements for a structural integrity program by requiring all new aircraft to be certified with Instructions for Continued Airworthiness. Older aircraft are handled through the FAA's aging aircraft program.

The FAA has filed an official difference with ICAO regarding corrosion. "At this time, the United States does not require that the continuing structural integrity programme contain specific information concerning corrosion prevention and control." However, corrosion is addressed during initial certification in the "Protection of Structure." (See 14 CFR §§ 23.609, 25.609, 27.609, and 29.609.)

Maintenance tasks and frequencies that have been specified as mandatory by the State of Design in approval of the type design shall be identified as such. *(Annex 8, Part III, Paragraph 10.4)*

The FAA requires each applicant for Type Certification to prepare Instructions for Continued Airworthiness. These instructions must include "an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the [aircraft]." (See 14 CFR §§21.50, 23.1529, 25.1529, 27.1529, and 29.1529.)

Specific periodic inspections are also required by 14 CFR § 91.409.



ICAO Requirement for State of Manufacture

Where the State of Manufacture ... is other than the State of Design there shall be an agreement acceptable to both States to ensure that the manufacturing organization co-operates with the organization responsible for the type design in assessing information received on experience with operating the aircraft. *(Annex 8, Part II, Paragraph 4.2.9)*

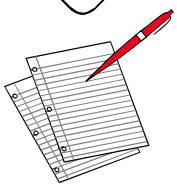
U.S. Implementation

Whenever the U.S. is only the State of Manufacture or the State of Design (e.g., Bell Helicopter Model 407), a working arrangement is concluded with the other responsible aviation authority to ensure continued airworthiness responsibilities are defined.

ICAO Requirement for State of the Operator	U.S. Implementation
The operator shall include a minimum equipment list (MEL), approved by the State of the Operator, in an operations manual. *(Annex 6, Part I, Paragraph 6.1.2)*	The FAA requires commercial air transport airplanes to have minimum equipment lists. (See 14 CFR § 91.213.)
If the State of Registry is unable to fulfill its responsibilities ... where aircraft are leased, chartered or interchanged, by an operator of another State, then the State of Registry should delegate responsibilities to the State of the Operator. *(Annex 6, Part I, Note 1)*	The FAA is currently pursuing Congressional authorization that will authorize bilateral exchanges of safety oversight responsibilities.
The State of the Operator shall require the Operator to provide Operations Manuals with all materials deemed mandatory by the State of the Operator *(Annex 6: Part I, Paragraph 4.2.2.2; Part II, Paragraph 6.1.3.1; Part III, Paragraph 4.1.3.1)*	The FAA approves air carrier operations specifications under 14 CFR Part 119. The FAA requires each aircraft to have an approved flight manual. (See 14 CFR §§ 23.1529, 25.1529, 27.1529, and 29.1529 and AC 91-67.)

ICAO Requirement for State of Occurrence	U.S. Implementation
The State of Occurrence shall institute an investigation into the circumstances of the accident. Such State shall also be responsible for the conduct of the investigation, but may delegate the whole or any part of the conducting of such investigation to the State of Registry or the State of the Operator. In any event the State of Occurrence shall use every means to facilitate the investigation. *(Annex 13, Paragraph 5.1)*	The FAA participates in aircraft accident investigations conducted by the National Transportation Safety Board (NTSB) and conducts certain other accident investigations (e.g., nonfatal accidents of civil aircraft which have a gross weight of 12,500 lbs. or less). (49 CFR § 831.2, referenced in Appendix 4, Part 1, FAA Order 8020.11A)
If a request is received from the State of Registry, the State of the Operator, the State of Design, or the State of Manufacture that the aircraft remain undisturbed pending inspection by an accredited representative of the requesting State, the State of Occurrence shall take all reasonable steps to comply. *(Annex 13, Paragraphs 3.3 and 3.4)*	
The State of Occurrence shall forward notification of an accident or serious incident to the State of Registry, the State of the Operator, the State of Design, the State of Manufacture, and the ICAO. *(Annex 13, Paragraph 4.1)*	The NTSB provides the notifications required by Annex 13.

ICAO Requirement for State of Registry and the State of the Operator



The State of Registry and the State of the Operator shall provide the State of Occurrence with any relevant information regarding the aircraft and flight crew involved in the accident or serious incident. Each State shall also inform the State of Occurrence whether it intends to be represented at the investigation. *(Annex 13, Paragraph 4.5)*

When an aircraft involved in an accident or serious incident lands in a State other than the State of Occurrence, the State of Registry or the State of the Operator shall furnish the State conducting the investigation the flight recorder records. *(Annex 13, Paragraph 5.16)*

U.S. Implementation

The FAA participates in major foreign accident investigations as an advisor to the U.S. accredited representative appointed by the NTSB.

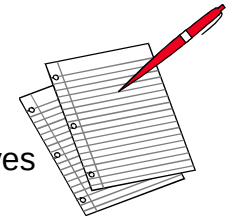
ICAO Requirement for State of Registry

When the accident or serious incident has occurred in the territory of a non-Contracting State, the State of Registry should endeavour to institute and conduct an investigation in co-operation with the State of Occurrence but, failing such co-operation, should itself conduct an investigation with such information as is available. *(Annex 13, Paragraph 5.2)*

When the location of the accident or serious incident cannot definitely be established as being in the territory of any State, the State of Registry shall institute and conduct any necessary investigation. *(Annex 13, Paragraph 5.3)*

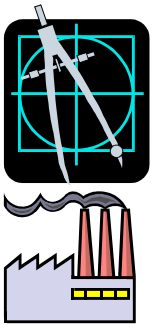
When the State of Registry institutes the investigation of an accident or serious incident ... it shall forward notification ... to the State of the Operator, the State of Design, the State of Manufacture, and ICAO. *(Annex 13, Paragraph 4.7)*

U.S. Implementation



When an accident or incident involves a U.S.-registered aircraft in a non-Contracting State, "the conduct of the investigation shall be in consonance with any agreement entered into between the United States and the foreign state." (49 CFR § 831.2(a)(2))

The NTSB is responsible for investigation of accidents which involve U.S. registered civil aircraft determined to be not in the territory of another State (i.e., in international waters). (49 CFR § 831.2(a)(2))



ICAO Requirement for State of Design and State of Manufacture

In the case of an accident or serious incident ... the State of Design and the State of Manufacture shall inform the State of Occurrence of the name of its accredited representative and whether the representative will be present at the investigation. *(Annex 13, Paragraph 4.6)*

When the State conducting an investigation of an accident to an aircraft of a maximum mass of over 2,250 kg specifically requests participation by the State of Design and the State of Manufacture, the latter State(s) shall each appoint an accredited representative. *(Annex 13, Paragraph 5.22)*

U.S. Implementation

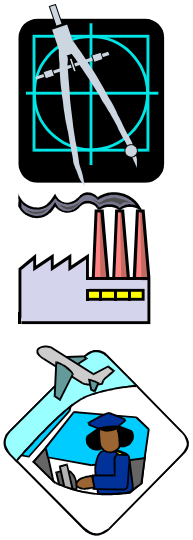
When the U.S. is the State of Occurrence, the NTSB conducts investigations of accidents and incidents. The FAA is a "party to the investigation."

When the U.S. is the not the State of Occurrence, the NTSB is the U.S. accredited representative. The FAA is an advisor to the NTSB and has equal status with other advisors (e.g., manufacturer, operator). (49 CFR § 831.11)

ICAO Requirement for State of the Operator, State of Design and State of Manufacture

Upon receipt of notification, the State of the Operator, the State of Design and the State of Manufacture shall, upon request, provide the State of Registry with any relevant information available regarding the flight crew and the aircraft involved in the accident or serious incident. Each State shall also inform the State of Registry whether it intends to be represented at the investigation ... *(Annex 13, Paragraph 4.8)*

U.S. Implementation



"The operator of an aircraft involved in an accident or incident shall retain all records, reports, internal documents, and memoranda dealing with the accident or incident..." (49 CFR § 830.10)

This page was intentionally left blank.

RECENT ICAO INITIATIVES

ACTION PLAN FOR GLOBAL AVIATION SAFETY

In February 1997 ICAO defined its Strategic Action Plan for global aviation safety. This was the first comprehensive reevaluation of ICAO's mission since the signing of the Chicago Convention in 1944. ICAO's work programme is to be integrated with this Strategic Action Plan. The U.S. advocates ICAO's being proactive in its safety role and supports this definition of ICAO's priorities in international aviation safety.

ICAO goal

- To provide necessary leadership and to gain a commitment from Contracting States and the aviation industry for a collaborative effort to enhance aviation safety in order to:
  - Achieve a significant decrease in the world-wide accident rate; and
  - Enhance the identification of shortcomings and deficiencies in the air navigation field and to achieve a significant degree of improvement.
- To increase and improve its own capability to compile, assess, and disseminate safety-related information.

Safety Initiatives

- Mandated Airborne Collision Avoidance System (ACAS)
- Accelerated development of Global Navigation Satellite System (GNSS)-based non-precision approaches
- An enhanced Controlled Flight Into Terrain (CFIT) Program
- Adoption of standard Air Traffic Control (ATC) phraseology;
- Development of the Global Air Traffic Management (ATM) plan;
- Review of the FM broadcast interference problem with ILS, VOR, and VHF systems;
- Increased emphasis on human

factors;

- Implementation of a global operational/safety information sharing mechanism (e.g., the Global Aviation Information Network, GAIN)

What is ICAO's Safety Oversight Programme?

ICAO's Safety Oversight Programme, established in 1995, is an effort by which States ensure the effective implementation of the safety-related SARP's and associated procedures contained in the Annexes to the Convention. It incorporates as its core function mandatory safety oversight assessments of States by ICAO, with the consent of the State, and with the objective of offering follow-up advice and technical assistance to enable States to implement SARP's and associated procedures. At the present time, the programme addresses only Annexes 1 (Personnel Licensing and Training), 6 (Aircraft Operation), and 8 (Aircraft Airworthiness).

Who controls, supervises, and administers the safety oversight programme?

The safety oversight programme is under the control and supervision of the Council and the Air Navigation Bureau (ANB) and is administered by the Secretary General.

Who is responsible for the day-to-day activities of the programme?

The ANB is responsible for activities related to team members, safety oversight assessment and identification of differences, or lack of implementation, of SARP's contained in Annexes 1, 6, and 8.

The Technical Co-operation Bureau is responsible, as requested by an assessed State, for activities designed to rectify deficiencies which require long-term expert advice or assistance under the Technical Co-operation Programme.

The ICAO Regional Offices facilitate coordination of the safety oversight assessment teams, provide assistance and advice when necessary, and are responsible for required follow-up action when the final assessment report has been completed.

Who determines whether a Contracting State will be audited ?

Audits are to be carried out upon ICAO's initiative, but always with the consent of the State.

What is the composition of the safety oversight assessment team and how long does it take to conduct an assessment?

The safety oversight assessment team typically consists of three persons (flight operations, airworthiness, licensing and training, or any other discipline that might be required). It usually takes up to three weeks to conduct an assessment.

What happens to the results of a safety oversight assessment?

The interim and final audit reports are confidential. Only the assessed State can disclose all or any part of the reports to a third party. ICAO provides summary reports of audits to other Contracting States on request.

ARTICLE 83 *bis* TO THE CHICAGO CONVENTION

What is Article 83 bis?

Article 83 *bis* is an amendment to the Chicago Convention that became effective in June 1997. It authorizes States to make bilateral transfers of safety oversight responsibilities related to the lease, charter, and interchange of aircraft. It gives States a basis and legal framework for entering into bilateral agreements transferring responsibilities under Articles 12 (Rules of the air), 31 (Certificates of airworthiness), and 32(a) (Licenses of personnel).

Typically, the State of Registry transfers the responsibilities to the State in which the aircraft are to be based (State of Operator).

What does Article 83 bis do?

- Article 83 *bis* allows placement of safety oversight responsibilities with the State where the aircraft or operator is based, i.e., with the State that is in a better situation to discharge safety oversight.
- Article 83 *bis* guarantees that bilateral agreements for transfer of oversight responsibilities are recognized by all ICAO States.

When will the U.S. implement Article 83 bis?

The FAA needs statutory authority in order to implement the provisions of Article 83 *bis*. Once such authority is provided by Congress, the FAA will develop the rule changes, procedures and guidance material for the implementation of 83 *bis*. Once these are completed, aircraft owners will be able to voluntarily request participation under Article 83 *bis*. To participate under the U.S. implementation of 83 *bis*, states requested to participate by the aircraft owner will have to have an existing bilateral agreement with the

U.S.

This page was intentionally left blank.

APPENDIX A – ICAO Member States

1. Afghanistan
2. Albania
3. Algeria
4. Angola
5. Antigua and Barbuda
6. Argentina
7. Armenia
8. Australia
9. Austria
10. Azerbaijan
11. Bahamas
12. Bahrain
13. Bangladesh
14. Barbados
15. Belarus
16. Belgium
17. Belize
18. Benin
19. Bhutan
20. Bolivia
21. Bosnia and Herzegovina
22. Botswana
23. Brazil
24. Brunei Darussalam
25. Bulgaria
26. Burkina Faso
27. Burundi
28. Cambodia
29. Cameroon
30. Canada
31. Cape Verde
32. Central African Republic
33. Chad
34. Chile
35. China, People's Republic of
36. Colombia
37. Comoros
38, Congo
39. Cook Islands
40. Costa Rica
41. Côte d'Ivoire
42. Croatia
43. Cuba
44. Cyprus
45. Czech Republic
46. Democratic People's Republic of Korea
47. Democratic Republic of the Congo
48. Denmark
49. Djibouti
50. Dominican Republic
51. Ecuador
52. Egypt
53. El Salvador
54. Equatorial Guinea
55. Eritrea
56. Estonia
57. Ethiopia
58. Federated States of Micronesia
59. Fiji
60. Finland
61. France
62. Gabon
63. Gambia
64. Georgia
65. Germany
66. Ghana
67. Greece
68. Grenada
69. Guatemala
70. Guinea
71. Guinea-Bissau
72. Guyana
73. Haiti
74. Honduras
75. Hungary
76. Iceland
77. India
78. Indonesia
79. Iran, Islamic Republic of
80. Iraq
81. Ireland
82. Israel
83. Italy
84. Jamaica
85. Japan
86. Jordan
87. Kazakhstan
88. Kenya
89. Kiribati
90. Korea
91. Kuwait
91. Kyrgyzstan
92. Lao People's Democratic

Republic
93. Latvia
94. Lebanon
95. Lesotho
96. Liberia
97. Libyan Arab Jamahiriya
98. Lithuania
99. Luxembourg
100. Madagascar
101. Malawi
102. Malaysia
103. Maldives
104. Mali
105. Malta
106. Marshall Islands
107. Mauritania
108. Mauritius
109. Mexico
110. Moldova
111. Monaco
112. Mongolia
113. Morocco
114. Mozambique
115. Myanmar
116. Namibia
117. Nauru
118. Nepal
119. Netherlands, Kingdom of the
120. New Zealand
121. Nicaragua
122. Niger
123. Nigeria
124. Norway
125. Oman
126, Pakistan
127. Panama
128. Papua New Guinea
129. Paraguay
130. Peru
131. Philippines
132. Poland
133. Portugal
134. Qatar
135. Palau, Republic of
136. Romania
137. Russian Federation
139. Rwanda
140. Saint Lucia
141. Saint Vincent and the Grenadines
142. Samoa
143. San Marino
144. Sao Tome and Principe
145. Saudi Arabia
146. Senegal
147. Seychelles
148. Sierra Leone
149. Singapore
150. Slovakia
151. Slovenia
152. Solomon Islands
153. Somalia
154. South Africa
155. Spain
156. Sri Lanka
157. Sudan
158. Suriname
159. Swaziland
160. Sweden
161. Switzerland
162. Syrian Arab Republic
163. Tajikistan
164. Thailand
165. The former Yugoslav Republic of Macedonia
166. Togo
167. Tonga
168. Trinidad and Tobago
169. Tunisia
170. Turkey
171. Turkmenistan
172. Uganda
173. Ukraine
174. United Arab Emirates
175. United Kingdom
176. United Republic of Tanzania
177. United States
178. Uruguay
179. Uzbekistan
180. Vanuatu
181. Venezuela
182. Viet Nam
183. Yemen
184. Zambia
185. Zimbabwe