

Chicago Convention, Annexes and International Air Law

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Chicago Convention & Annexes

- Chicago has unique feature of having various technical annexes - proved successful so far.
- Final Act of the Chicago Convention contains 12 Technical Annexes (Now 19)
- Annexes did not requires signature covers different fields of aviation, being technical in nature.
- The ICAO Secretariat is headed by a Secretary General who is appointed by the Council and is in charge of five separate bureaux, each with its own director. Of these the Air Navigation Bureau, which deals with technical issues and the Air Transport Bureau, which addresses economic issues, are the two main bureaux of the Secretariat and are responsible for work on the 19 Annexes to the Chicago Convention containing SARPS on international civil aviation which States are obligated to follow.
- The Legal Bureau handles international treaties adopted under the auspices of ICAO and other legal issues related to air law

CHAPTER-VI: Adoption and Implementation of Annexes

- Articles 37-42 deal with Adoption and implementation of International Standards and Recommended Practices (SARPs) in international civil aviation.
- The adoption and departures of international standards, procedures, endorsement of certificates and licenses and their validity, recognition of airworthiness etc. .
- Article 37: Adoption of international Standards and procedures.
- Article 38: Departures from international standards and Procedures.
- Article 39: Endorsement of Certificates and Licenses.
- Article 40: Validity of endorsed certificates and licenses.
- Article 41: Recognition of existing standards of airworthiness.
- Article 42: Recognition of existing standards of competency of personnel.

Article 54 and 90 of Chicago Convention

- ❖ Annexes adopted by the Council of ICAO as prescribed by the Convention, Article 54 1) of which prescribes, as one of the mandatory functions of the Council that the Council shall adopt international standards and recommended practices; for convenience, designate them as Annexes to the Convention and notify ICAO States of all action taken.
- ❖ Chapter XX of Article 90 Adoption & amendment of Annexes
- ❖ Adoption of the Annexes by council will be by vote of 2/3 of the council – Art 54
- ❖ (1) Council shall immediately notify all contracting states of coming force of any Annexes or amendment thereto.

ICAO's standards and Recommended Practices (SARPs)

- ICAO's standards are binding by member States.
- “A Standard is defined as any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is recognized as necessary for the safety or regularity of international air navigation and to which Contracting States will conform in accordance with the Convention; in the event of impossibility of compliance, notification to the Council is compulsory under Article 38 of the Convention.”
- Recommended practices are viewed as merely desirable; member States need not notify the Council of their intent to comply, although they are so encouraged.
- “A Recommended Practice is any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is recognized as desirable in interest of safety, regularity or efficiency of international air navigation, and to which Contracting States will endeavor [sic] to conform in accordance with the Convention. States are invited to inform the Council of non-compliance. compliance.”

The Process of Adopting SARPS

- Proposed technical SARPS are reviewed first by the Air Navigation Commission.
- Proposed SARPS are “vetted ” to States for comment and consultation.
- The Council approves new SARPS by a two two-thirds majority.
- They circulated to member States four months before the Effective Date.
- A majority of States can veto the SARPS by registering their disapproval (but this has never happened).
- States also may “opt out ” by registering their differences.
- After the Effective Date, the Secretariat issues the SARPS.
- States are expected to comply except to the extent they have registered differences.

19 Annexes

- Annex 1: Personnel Licensing, Annex 2: Rules of the Air, Annex 3: Meteorology, Annex 4: Aeronautical Charts, Annex 5: Units of Measurement to Be Used in Air Air-Ground Communications, Annex 6: Operation of Aircraft, International Commercial Air Transport, Annex 7: Aircraft Nationality and Registration Marks, Annex 8: Airworthiness of Aircraft, Annex 9: Facilitation of International Air Transport, Annex 10: Aeronautical Telecommunication, Annex 11: Air Traffic Services, Annex 12: Search and Rescue, Annex 13: Aircraft Accident Inquiry, Annex 14: Aerodromes, Annex 15: Aeronautical Information Services, Annex 16: Environmental Protection, Annex 17: Security - Safeguarding Int. Civil Aviation Against Acts of Unlawful Interference, Annex 18: Safe Transport of Dangerous Goods by Air and Annex 19: Safety Management Systems
- The aim of most of the annexes is to promote progress in flight safety, particularly by guaranteeing satisfactory minimum standards of training and safety procedures and by ensuring uniform international practices.

Annex-I: Personnel Licencing

- Personnel Licensing—licensing of flight crews, air traffic controllers, and aircraft maintenance personnel
- Standards and Recommended Practices for the licensing of flight crew members (pilots, flight engineers and flight navigators), air traffic controllers, aeronautical station operators, maintenance technicians and flight dispatchers, training manuals also provide guidance for the training
- Article 32 of the Chicago Convention provides that the pilot of every aircraft and the other members of the operating crew of every aircraft engaged in international navigation shall be provided with certificates of competency and licenses issued or rendered valid by the State in which the aircraft operates
- Similarly the expression “flight crew member” has the same meaning as the expressions “member of the operating crew of an aircraft” and “operating personnel” used in the Convention while the expression “personnel other than flight crew members” includes the expression “mechanical personnel” used in the Convention.

Annexe-2: Rules of the Air

- Annex 2 consist of general rules, visual flight rules and instrument flight rules apply without exception over the high seas, and over national territories to the extent that they do not conflict with the rules of the State being overflown.
- The pilot-in-command of an aircraft is responsible for compliance with the rules of the air.
- An aircraft must be flown in accordance with the general rules and either the visual flight rules (VFR) or the instrument flight rules (IFR).
- Flight in accordance with visual flight rules is permitted if a flight crew is able to remain clear of clouds by a distance of at least 1 500 m horizontally and at least 300 m (1 000 ft) vertically and to maintain a forward visibility of at least 8 km. For flights in some portions of the airspace and at low altitudes, and for helicopters, the requirements are less stringent. An aircraft cannot be flown under VFR at night or above 6 100 m (20 000 ft) exceptby special permission.
- Balloons are classified as aircraft, but unmanned free balloons can be flown only under specified conditions detailed in the Annex.
- All these rules, when complied with by all concerned, help make for safe and efficient flight.

Annex 3: Meteorological Service for International Air Navigation

- Annex 3 to the Chicago Convention provides in Standard 2.1.1. that the objective of meteorological service for international air navigation shall be to contribute towards the safety, regularity and efficiency of international air navigation.
- This objective shall be achieved by supplying the following users: operators, flight crew members, air traffic services units, search and rescue services units, airport managements and others concerned with the conduct or development of international air navigation, with the meteorological information necessary for the performance of their respective functions
- The Annex, in Standard 2.1.3 calls for each Contracting State to determine the meteorological service which it will provide to meet the needs of international air navigation.
- State responsibility for the provision of meteorological information is provided for in Standard 2.1.4. where each Contracting State is required to ensure that the designated meteorological authority complies with the requirements of the World Meteorological Organization in respect of qualifications and training of meteorological personnel providing service for international air navigation

Annex-4:Aeronautical Charts

- Article 28 of the Chicago Convention requires *inter alia* that Contracting States collaborate in international measures to secure the publication of aeronautical maps and charts in accordance with standards which may be recommended or established from time to time, pursuant to the Convention.
- Pilots engaged in air navigation depend on aeronautical charts to follow their flight plans. ICAO has prescribed standards and Recommended practices for States to follow in developing and issuing such charts to the technical crew. Aeronautical Charts—specifications for aeronautical charts for use in international aviation
- Pilots need to be informed about meteorological conditions along the routes to be flown and at their destination aerodromes.
- 21 types, each intended to serve specialized purposes
- The En route Chart, the Plotting Chart, the Plotting Chart, Standard Departure Chart, The Instrument Approach Chart, The Aerodrome/Heliport Chart, Aerodrome Obstacle Chart.

Annexe-5: : Units of Measurement to Be Used in Air & Ground Communications

- Annex 5 was initially applicable only to those units used in communications between aircraft and ground stations.
- Many attempts to improve the level of standardization were made in the following years and a number of amendments
- It also introduced the International System of Units, known as SI from the "Système International d'Unités", as the basic standardized system to be used in civil aviation.
- In addition to the SI units the amendment recognized a number of non-SI units which may be used permanently in conjunction with SI units in aviation. These include the litre, the degree Celsius, the degree for measuring plane angle, etc
- Amendments 14 and 15 to Annex 5 introduced a new definition of the metre, and references to temporary non-SI units were deleted.

Annex-6: Operation of Aircraft

- Prudent operation of aircraft is vital in avoiding accidents and incidents. Annex 6 addresses aeronautical aspects of the operations of aircraft. The essence of Annex 6, simply put, is that the operation of aircraft engaged in international air transport must be as standardized as possible to ensure the highest levels of safety and efficiency.
- Operation of Aircraft. Part I: International Commercial Air Transport; Part II: International General Aviation; Part III: International Operations–Helicopters. These specifications will ensure in similar operations throughout the world a level of safety above a prescribed minimum.
- The purpose of Annex 6 is to contribute to the safety of international air navigation by providing criteria for safe operating practices, and to contribute to the efficiency and regularity of international air navigation by encouraging ICAO's Contracting States to facilitate the passage over their territories of commercial aircraft belonging to other countries that operate in conformity with these criteria

Annexe-7: Aircraft Nationality and Registration Marks

- How are aircraft classified and identified, and how can you tell aircraft nationality?
- The Annex is based on Articles 17 to 20 of the Chicago Convention.
- Aircraft Nationality and Registration Marks—requirements for registration and identification of aircraft
- Annex 7 deals with aircraft nationality and registration marks, and, in a separate table, classifies aircraft by how they maintain sustained flight in the air.
- The Annex sets out procedures for selection by ICAO Contracting States of nationality marks from the nationality symbols included in the radio call signs allocated to the States of Registry by the ITU.
- It sets standards for the use of letters, numbers and other graphic symbols to be used in the nationality and registration marks, and spells out where these characters will be located on different types of airborne vehicles, such as lighter-than air aircraft and heavier-than-air aircraft.

Annex-8: Airworthiness of Aircraft

- Article 33 of the Convention on International Civil Aviation places the burden on the State of Registry to recognize and render valid an airworthiness certificate issued by another Contracting State, subject to the condition that the airworthiness requirements under which such a certificate
- is issued or rendered valid are equal to or above the minimum standards which may be established by ICAO from time to time pursuant to the Convention.
- aircraft must be designed, constructed and operated in compliance with the appropriate airworthiness requirements of the State of Registry of the aircraft.
- Annex 8 is divided into four parts. Part I includes definitions; Part II deals with procedures for certification and continuing airworthiness of aircraft; Part III includes technical requirements for the certification of new large aeroplane designs; Part IV deals with helicopters.
- a Certificate of Airworthiness declaring that the aircraft is fit to fly.

Annexe-9: Facilitation

- Facilitation—simplification of customs, immigration, and health inspection regulations at international airports.
- Article 22 obliges each Contracting State to adopt all practicable measures to facilitate and expedite navigation
- Article 23 establish customs and immigration procedures
- Likewise Arts 10,13, 29 will be complied by all states
- The Annex provides a frame of reference for planners and managers of international airport operations, describing maximum limits on obligations of industry and minimum facilities to be provided by governments.
- In addition, Annex9 specifies methods and procedures for carrying out clearance operations in such a manner as to meet the twin objectives of effective compliance with the laws of States and productivity for the operators, airports and government inspection
- agencies involved.

Annexe-10: Aeronautical Telecommunications

1. Aeronautical Telecommunications—standardization of communications equipment and systems and of communications procedures. Annex 10 is divided into five volumes: Volume I — Radio Navigation Aids. Volume II — Communications Procedures including those with PANS status Volume III — Communication Systems Part 1 — Digital Data Communication Systems Part 2 — Voice Communication Systems. Volume IV — Surveillance Radar and Collision Avoidance Systems Volume V — Aeronautical Radio Frequency Spectrum Utilization
 - Volume I of Annex 10 is a technical document which defines for international aircraft operations the systems necessary to provide radio navigation aids used by aircraft in all phases of flight.
 - Volumes II and III cover two general categories of voice and data communications that serve international civil aviation. Volume IV of Annex 10 contains SARPs and guidance material for secondary surveillance radar (SSR) and airborne collision avoidance systems (ACAS), including SARPs for SSR Mode A, Mode C and Mode S, and the technical characteristics of ACAS. In Volume V of Annex 10, SARPs and guidance material on the utilization of aeronautical frequencies are defined.
 - The International Telecommunication Union (ITU) has set up a framework in which the demands for radio spectrum from individual States are balanced with the interests of different radio service users to produce a planned radio environment incorporating interference-free, effective and efficient radio spectrum use

Annexe-11: Air Traffic Services

- The SARPs in Annex 11, together with the Standards in Annex 2, govern the application of the *Procedures for Air Navigation Services — Air Traffic Management* and the *Regional Supplementary Procedures — Rules of the Air* and Air Traffic Services, contained in Doc 7030, Annex 11 pertains to the establishment of airspace, units and services necessary to promote a safe, orderly and expeditious flow of air traffic.
- A clear distinction is made between air traffic control service, flight information service and alerting service. Its purpose, together with Annex 2, is to ensure that flying on international air routes is carried out under uniform conditions designed to improve the safety and efficiency of air operation
- ☐ Air Traffic Services—establishment and operation of air traffic control, flight information, and alerting services.
- ☐ The world's airspace is divided into a series of contiguous flight information regions (FIRs) within which air traffic services are provided
- ☐ All aircraft fly either instrument flight rules (IFR) or visual flight rules (VFR).
- ☐ specifications for operational flight information service (OFIS) broadcasts, including automated terminal information service (ATIS) broadcasts

Annex-12: *Search and Rescue* (SAR).

Search and rescue services are organized to respond to persons apparently in distress and in need of help. Prompted by the need to rapidly locate and rescue survivors of aircraft accidents, a set of internationally agreed Standards and Recommended Practices incorporated in ICAO's Annex 12 - *Search and Rescue* (SAR).

The Annex, which is complemented by a three-part *Search and Rescue Manual* dealing with SAR organization, management and procedures, sets forth the provisions for the establishment, maintenance and operation of search and rescue services by ICAO Contracting States in their territories and over the high seas.

After the events of 11 September 2001, it is only natural to assume that there is heightened awareness of the possibility of aircraft being used as weapons of destruction in the future.

From a social and political perspective, the world has to prepare for eventualities leading up to search and rescue of aircraft that may need to be located without loss of time and the passengers and crew rescued. Search and Rescue—organization and operation of facilities and services necessary for search and rescue

Annex 12 to the Chicago Convention elaborates on this fundamental requirement by qualifying that Contracting States shall arrange for the establishment and provision of SAR services within their territories on a 24-hour basis.

Annex-13: Aircraft Accident Investigation

- Annex 13 provides the international requirements for the investigation of aircraft accidents and incidents. It has been written in a way that can be understood by all participants in an investigation. the Annex spells out which States may participate in an investigation, such as the States of Occurrence, Registry Operator, Design and Manufacture. It also defines the rights and responsibilities of such States.
- Article 26 of the Chicago Convention provides that, in the event of an accident to an aircraft of a contracting State occurring in the territory of another contracting State, and involving death or serious injury, or indicating serious technical defect in the aircraft or air navigation facilities, the State in which the accident occurs will institute an inquiry into the circumstances of the accident, in accordance, so far as its laws permit, with the procedure which may be recommended by ICAO
- Annex 13 provides the international requirements for the investigation of aircraft accidents and incidents. It has been written in a way that can be understood by all participants in an investigation
- Responsibility for an investigation belongs to the State in which the accident or incident occurred. That State usually conducts the investigation, but it may delegate all or part of the investigation to another State

Annex-14: Aerodromes

A distinction of Annex 14 is the broad range of subjects it contains.

It extends from the planning of airports and heliports to such details as switch-over times for secondary power supply; from civil engineering to illumination engineering; from provision of sophisticated rescue and fire fighting equipment to simple requirements for keeping airports clear of birds.

Aerodromes—specifications for the design and equipment of aerodromes.

I- Deals the planning of airports, aerodrome design and operations

II- Deals heliport design

New aircraft models, increased aircraft operations, operations in lower visibilities and technological advances in airport equipment combine to make Annex 14 one of the most rapidly changing Annexes.

- Volume I dealing with aerodrome design and operations and Volume II dealing with heliport design.
- Annex 14, Volume I, is also unique: it is applicable to all airports open to public use in accordance with the requirements of Article 15 of the Convention. Historically, it came to life in 1951 with 61 pages of Standards and Recommended Practices and 13 additional pages on guidance for their implementation.

Annexe-15: Aeronautical Information Service (AIS).

- One of the least known and most vital roles in support of international civil aviation is filled by the aeronautical information service (AIS).
- The object of the aeronautical information service is to ensure the flow of information necessary for the safety, regularity and efficiency of air navigation.
- Annex 15 defines how an aeronautical information service shall receive and/or originate, collate or assemble, edit, format, publish/store and distribute specified aeronautical information/data. The goal is to satisfy the need for uniformity and consistency in the provision of aeronautical information/data that is required for the operational use by international civil aviation. "International notices to airmen" is a phrase which led to the birth of an early aeronautical acronym: NOTAM. In 1949, a special NOTAM meeting reviewed and proposed amendments to these procedures, which were later issued as *Procedures for Air Navigation Services* that became applicable in 1951
- Annex 15 amendments have reflected the increased need for the timely provision of quality aeronautical information/data and terrain data as they have become critical components of data-dependant on-board navigation systems.
- The Annex now contains many provisions aimed at preventing corrupt or erroneous aeronautical information/data which can potentially affect the safety of air navigation.

Annex-16: Environmental Protection

- Annex 16 (Volumes I and II) deals with the protection of the environment from the effect of aircraft noise and aircraft engine emissions - two topics hardly thought about when the Chicago Convention was signed.
- In 1968, the ICAO Assembly adopted a resolution which conceded the seriousness of noise in the vicinity of airports, and instructed the ICAO Council to establish international specifications and associated guidance material to control aircraft noise.
- A resolution adopted by the ICAO Assembly in 1971 led to specific action on the question of engine emissions and detailed proposals for ICAO Standards for the control of engine emissions from certain types of aircraft engines. The Committee on Aircraft Engine Emissions (CAEE) was subsequently established with a view to develop specific Standards for aircraft engine emissions.

Annex-17: Security - Safeguarding Int. Civil Aviation Against Acts of Unlawful Interference

- The dramatic increase in crimes of violence which adversely affected the safety of civil aviation during the late 1960's, resulted in an Extraordinary Session of the ICAO Assembly in June 1970. new Annexes to the Chicago Convention to specifically deal with the problem of unlawful interference, in particular with unlawful seizure of aircraft
- Annex 17 seeks to co-ordinate the activities of those involved in security programmes. It is recognized that airline operators themselves have a primary responsibility for protecting their passengers, assets and revenues, and therefore States must ensure that the carriers develop and implement effective complementary security programmes compatible with those of the airports out of which they operate.
- The latest Amendment 10 to Annex 17 was adopted by the ICAO Council on 7 December 2001 in order to address challenges posed to civil aviation by the events of 11 September 2001. The amendment includes various definitions and new provisions in relation to the applicability of this Annex to domestic operations; international cooperation relating to threat information; national quality control; access control; measures related to passengers and their cabin and hold baggage;

Annexe-18: *Safe Transport of Dangerous Goods by Air*

- More than half of the cargo carried by all modes of transport in the world is dangerous cargo – explosive, corrosive, flammable, toxic and even radioactive. These dangerous goods are essential for a wide variety of global industrial, commercial, medical and research requirements and processes. Because of the advantages of air transport, a great deal of this dangerous cargo is carried by aircraft.
- ICAO recognizes the importance of this type of cargo and has taken steps to ensure that such cargo can be carried safely. This has been done by adopting Annex 18, together with the associated document *Technical Instructions for the Safe Transport of Dangerous Goods by Air*.
 1. Safe Transport of Dangerous Goods by Air—specifications for the labeling, packing, and shipping of dangerous cargo.
 2. 9 hazard classes explosives of all kinds, compressed or liquefied gases, flammable liquids, flammable solids, spontaneously combustible materials, oxidizing material, Radioactive materials, dangerous to human tissue, miscellaneous category etc.

Annex 19

- Safety Management Systems
- Importance of Safety
- Safety and ICAO Objectives
- ICAO work on global Air Safety Management systems
- Air Safety managements and Recent Developments

Annex 19 – Safety Management

- CHAPTER 1 – Definitions
- CHAPTER 2 – Applicability
- CHAPTER 3 – State safety management responsibilities
- CHAPTER 4 – Safety management system (SMS)
- CHAPTER 5 – Safety data collection, analysis & exchange
- APPENDIX 1 –State safety oversight system
- APPENDIX 2 – SMS Framework
- ATTACHMENT A – SSP Framework
- ATTACHMENT B – Legal guidance for the protection of information from safety data collection and processing systems

Duties of States

- Under Article 12 of the Chicago Convention, it is the responsibility of every member State to keep its own regulations uniform “to the greatest possible extent” with the Standards and Recommended Practices promulgated by ICAO.
- Under Article 37, States are obliged to “collaborate in securing the highest practicable degree of uniformity ” in their domestic law, regulations and procedures with SARPs.
- But if they find it “impracticable to comply ”, under Article 38, they are to notify ICAO of differences between their own practices and those established by the SARPs

PANS & SUPPS

- ICAO also issues Procedures for Air Navigation Services [PANS] and Regional Supplementary Procedures [SUPPS]. Still another form of rule-making that has been employed by the Council is the Technical instructions which provide detailed explanations of how Annexes are to be implemented.
- “Procedures for Air Navigation Services (or PANS) comprise operate operating practices and material too detailed for Standards or Recommended Practices - they often amplify the basic principles in the corresponding Standards and Recommended Practices. To qualify for PANS status, the material should be suitable for application on a worldwide basis. The Council invites Contracting States to publish any differences in their Aeronautical Information Publications when knowledge of the differences is important to the safety of air navigation.”
- Regional Supplementary Procedures (or SUPPs) have application in the respective ICAO regions. Although the material in Regional Supplementary Procedures is similar to that in the Procedures for Air Navigation Services, on SUPPs do not have the worldwide applicability of PANS.

Thank you