48th ICAO Familiarization Course

ICAO Headquarters
13 to 28 July 2006

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48TH FAMILIARIZATION COURSE
2006

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Introductory Presentations

ICAO FAMILIARIZATION COURSE

RELATIONS WITH OTHER INTERNATIONAL ORGANIZATIONS

(Chief, External Relations and Public Information Office)

References: -   *Convention on International Civil Aviation* (Doc 7300/8)
              -   *Agreement between the United Nations and the International Civil Aviation Organization* (Doc 7970)
              -   *Charter of the United Nations*
              -   *Assembly Resolutions in Force* (Doc 9848)

NOTES

1.   **INTRODUCTION**

1.1   The International Civil Aviation Organization (ICAO) exists in a world in which international organizations are widely accepted and numerous, and in which it is necessary to define its relations with other organizations and continually to take measures by which its activities will be coordinated with theirs.

2.   **MAIN TYPES OF INTERNATIONAL ORGANIZATIONS**

2.1   **Non-governmental organizations (NGOs)**. In the authoritative directory, the *Yearbook of International Organizations*[1], there are listed over 28 000 organizations, the majority of which are non-governmental. These have a great diversity of aims, but fairly common are:

        a)   protection of private interests, e.g. international trade-union or professional associations;

        b)   promotion of study, research, propagation of knowledge, e.g. several scientific bodies.

        Their members may be national societies or individuals.

2.2   **Intergovernmental organizations (IGOs)**.   These are organizations of which the members are governments of sovereign states with, in some cases, associate membership for territories not

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[1] Edited by the Union of International Associations, Rue Washington 40, Brussels, Belgium, based on an agreement with the United Nations.

wholly independent but independent in respect of the subject with which the organization deals. These, in turn, can be broken down into two main classes:

> a) regional organizations;
>
> b) universal organizations.

2.3   ICAO policy in respect of non-governmental and intergovernmental organizations is laid down in Assembly resolutions A1-10 and A1-11 (See Annex I). These give ICAO a wide general authority to invite suitable organizations to meetings and to attend theirs, to exchange information, to participate in debate and discussion, to submit proposals, etc. This policy has remained unmodified since 1947. Based upon this policy, the Rules of Procedure of ICAO organs – the Assembly, the Council, divisional meetings, regional air navigation meetings and so on – allow representatives of other organizations considerable freedom of expression. Generally they are classified as "observers". They can do, in effect, much more than observe. Rules of procedure vary between bodies but, in the case of most bodies in ICAO, allow almost complete freedom of intervention short of voting. The general practice is thus flexible, and while there have been one or two occasions upon which there have been objections to the activities of observers, there has been nothing sufficiently serious to warrant modification of the policy.

3.   NON-GOVERNMENTAL ORGANIZATIONS

3.1   There are relatively few which are wholly concerned with international civil aviation. There are a number which have some interest in civil aviation.

3.2   ICAO's interest is in the main to draw upon the professional knowledge and experience which these non-governmental organizations have to offer, for example:

> IATA: to represent the policies, positions and needs of Member Airlines in all domains relating to international air services, including safety, security, regularity and efficiency.
>
> IFALPA: to provide feedback from practical experience of aircraft operations regarding the adequacy of ICAO Standards and Regional Air Navigation Plans.

4.   INTERGOVERNMENTAL ORGANIZATIONS

4.1   **Regional bodies**. Examples are the African Union (AU), the Organization of American States (OAS), the European Union (EU). The main feature which sets these apart is that they are regional. Otherwise, they have a variety of aims – maintenance of peace, economic development, health, etc. They are recognized in general terms in the UN Charter, in an article which states that the Security Council may submit a question of international peace and security to an appropriate regional body, and only deal with it itself if it subsequently proves necessary. There are also some regional banks, e.g. the Inter-American Development Bank, the African Development Bank, the Asian Development Bank and some regional institutes of economic planning. Most of these are tied more or less loosely to the United Nations. Our relations with all these bodies is founded on recognition of an obligation to exchange full information on activities, to respect fields of competence and to invite consultation upon subjects of common interest. Where desirable, we engage in joint ventures.

4.2   **Universal intergovernmental organizations**. In this class are, notably, the organizations of the United Nations system.

4.2.1   **Programmes of the United Nations**. Though constituent elements of the United Nations, these have considerable autonomy in operational matters to the extent of having their own separate governing bodies. Their budgets are, however, adopted by the United Nations General Assembly. Among the most important are the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP) and the United Nations Conference on Trade and Development (UNCTAD).

4.2.2   **The specialized agencies**. The intergovernmental agencies related to the United Nations by special agreements are separate, autonomous organizations which work with the United Nations and each other through the coordinating machinery of the Economic and Social Council. They are known as "specialized agencies" a term used in the United Nations Charter. A list of the specialized agencies, beside ICAO, are included in the "List of International Organizations that may be invited to attend suitable ICAO meetings" (Annex II).

4.2.3   **The International Atomic Energy Agency (IAEA)**. Although not a specialized agency, the IAEA is an autonomous intergovernmental organization under the aegis of the United Nations. It reports annually to the General Assembly and, as appropriate, to the Security Council and the Economic and Social Council.

4.2.4   **The World Trade Organization (WTO)**. It was established in 1995, replacing the General Agreement on Tariffs and Trade (GATT) as the only international body dealing with the global rules of trade between nations. It is not a specialized agency, but has cooperative arrangements and practices with the United Nations.[2]

5.   **The relationship agreement**. As stated above, the specialized agencies are related to the United Nations by special agreements. This is in conformity with the Charter of the United Nations and with the Chicago Convention which, in Article 64, authorizes ICAO to "enter into appropriate arrangements with any general organization set up by the nations of the world to preserve peace". In 1947, ICAO signed the fourth relationship agreement.

5.1   Since the relationship agreements have very much in common, the ICAO agreement will stand as a good example. One feature common to all is Article I – recognition of the autonomy and competence of ICAO. Apart from this, the agreement sets out the procedures which each party will follow in order to keep the other informed on its activities and in order to give the other the opportunity, when required, to intervene in its business. Hence, it will be noted, exchanges of invitations to meetings, right to submit proposals, etc. The last articles of the agreement bind both parties to work together to achieve common conditions of service for international civil servants, to look towards uniformity in administrative practices, and so on.

5.2   When analysing the relationship agreement, it is important to note how the obligations and rights of ICAO differ in respect of the different organs of the United Nations – the General Assembly, the Security Council, the Economic and Social Council (ECOSOC) and the Trusteeship Council. The Charter of the United Nations allots different functions to each of these. The General Assembly has a general right of supervision over the others, except for the Security Council, in respect of which its rights are limited to conveying its views to the Council, on condition that the matter at issue is not already being dealt with by the Council. A brief general summary shows for ICAO its rights vis-à-vis these organs:

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[2] United Nations, Department of Public Information. *Basic Facts About the United Nations*. New York, 2004, p.63.

- General Assembly	invited to attend meetings when matters concerning civil aviation are under discussion;
- Economic and Social Council (ECOSOC)	full rights of participation in the business of the ECOSOC, except right to vote;
- Trusteeship Council	similar to ECOSOC, though in practice not important;
- Security Council	no rights of participation: only an obligation to cooperate with ECOSOC in helping to carry out decisions of the Security Council.

5.3   **The Economic and Social Council (ECOSOC)**. The ECOSOC is of prime interest since, under the Charter of the United Nations, this organ has the obligation to ensure that the activities of the United Nations and the specialized agencies are coordinated and, to this end, the right to receive reports and to make recommendations to the agencies. Hence several of the specific requirements of the relationship agreement. In practice, however, to supervise the implementation of the agreements between the United Nations and the specialized agencies and ensure that their activities are fully coordinated, the ECOSOC has turned increasingly to the United Nations System Chief Executives Board (CEB) for Coordination, formerly known as Administrative Committee on Coordination (ACC).

5.4   **The United Nations System Chief Executives Board (CEB) for Coordination**. The CEB is chaired by the United Nations Secretary-General and its membership comprises the executive heads of 28 UN organizations (11 UN bodies, funds and programmes; 14 specialized agencies; the Bretton Woods Institutions [World Bank and IMF]; and the World Trade Organization). Together, they make up what is referred to as organizations of the UN system. CEB's purpose is to advance coordination and cooperation among its member organizations on a broad range of policy, programme and management issues. It meets twice a year and is assisted by two high-level committees, the High-Level Committee on Programmes and the High-Level Committee on Management. It is supported by a network of experts and specialists in all areas of interagency work. The CEB is thus a body of considerable influence because of its role in ensuring system-wide coordination of important UN decisions and initiatives. It should be noted, however, that each executive head represents his/her organization and, therefore, lends himself/herself to decisions of the CEB in accordance with the policy of his/her organization.

5.5   **The General Assembly**. As far as the General Assembly is concerned, the situation is different. Certain specialized agencies – the World Health Organization (WHO), the International Labour Organization (ILO), the Food and Agriculture Organization (FAO), and the United Nations Educational, Scientific and Cultural Organization (UNESCO) – maintain liaison offices at United Nations headquarters in New York, the staff of which are able constantly to study proposals about to be made or under consideration by the General Assembly, to warn their organizations and to represent them in the relevant discussions. This is not open to smaller organizations because of the relative cost of maintaining an office in New York. In consequence, it is not easy to arrange attendance by a representative of ICAO on every occasion when something affecting ICAO might be discussed. In fact, however, the General Assembly – and quite naturally so, under the Charter of the United Nations – rarely deals with anything which affects ICAO activities with the exception of resolutions affecting the political status of certain states.

6.   **ICAO'S PRINCIPAL OR IMMEDIATE INTEREST**

6.1   Of the intergovernmental organizations those of principal interest are:

              - the International Telecommunication Union (ITU);
              - the World Meteorological Organization (WMO);
              - the International Maritime Organization (IMO);
              - the Universal Postal Union (UPU)

6.2   All these have a degree of interest in aeronautics and international civil aviation, and ICAO has an interest in seeing that their regulations and activities make provision for civil aviation, for example, in seeing that ITU's sweeping allocations of radio-frequencies for certain purposes include allocations of sufficient frequencies of a suitable order for use by aircraft. Each of these organizations, like ICAO, has a fairly clearly defined field of competence. Consequently, where these fields touch and overlap is also clear to recognize. The need and occasion for cooperation and coordination is easily conceived and usually spontaneous. There is a considerable exchange of views and information between these organizations, especially between ICAO on the one hand and the ITU and WMO on the other, both formal and informal. Where differences of policy arise, they have to be and are reconciled by consultation between appropriate organs.

6.3   Understandings were reached several years ago between ICAO and these organizations by exchange of letters, and provide for full exchange of information and flexible arrangements for intervention by each in the business of the other. In the case of WMO, there exists, in addition, a set of "working arrangements", approved by the Council of ICAO and the Executive Committee of the World Meteorological Organization, and amended on a few respects since. These working arrangements with WMO were deemed desirable mostly to record the proper sequence of action in each organization on matters of international regulation, on which the organizations reach agreement but on which each must publish its own regulatory material, and also to record agreement on the division of responsibility where this is desirable, e.g. in respect of certain international codes. In general, it may be said that there is no evidence of need to change ICAO policy or practice in respect of these organizations. The flexibility in practice permits changes of detail as the need may arise.

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1-10: Relations with public international organizations

Whereas there is a number of public international organizations whose activities affect or are affected by those of this Organization; and

Whereas the work of the Organization and the advancement of international civil aviation will be enhanced by close co-operation with such organizations;

Now therefore, this Assembly:

1. *Authorizes* the Council to make appropriate arrangements with public international organizations whose activities affect international civil aviation, particularly with regard to technical collaboration, exchange of information and documents, attendance at meetings, and such other matters as may promote effective co-operation, provided that such arrangements can be implemented without any increase in the approved budget of the year in question;

2. *Suggests* that such arrangements may, with advantage, be established through informal working arrangements rather than formal agreements wherever practicable;

3. *Requests* the Council to report to the next Assembly on the nature and scope of each arrangement entered into pursuant to this resolution.

1-11: Relations with private international organizations

Whereas there is a number of private international organizations whose activities affect, or are affected by, those of the International Civil Aviation Organization; and

Whereas the work of the Organization and the advancement of international civil aviation may be enhanced by co-operation with such other bodies;

Now therefore this Assembly:

A. *Resolves*

1. That the Council is hereby authorized in the exercise of its discretion to make appropriate arrangements with private international organizations whose activities affect international civil aviation, and

   a) which have a wide and well-established international representation and possess a governing international body having a permanent character and authorized representatives;

   b) whose aims and objectives are not in conflict with the general principles laid down in the Convention on International Civil Aviation;

2. That the extent of the co-operation provided for by any such arrangements shall be governed by the degree to which specific matters within the respective responsibilities of the two organizations are of interest to both;

3. That co-operation, in respect of those matters in which both organizations have a common interest, may be in the following forms or in such other forms as may appear desirable to the Council:

    a) exchange of information and documentation;

    b) reciprocal representation and participation in the work of technical meetings, committees or working groups;

4. That participation in the work of the Organization must necessarily be on a non-voting basis, provided that such arrangements can be implemented without any increase in the approved budget for the year in question;

B. *Suggests* that such arrangements may, with advantage, be established through informal working arrangements rather than formal agreements wherever practicable;

C. *Requests* the Council to report to the next Assembly on the nature and scope of any arrangement entered into pursuant to this resolution.

LIST OF INTERNATIONAL ORGANIZATIONS THAT MAY BE INVITED TO ATTEND SUITABLE ICAO MEETINGS

1) ORGANIZATIONS WITH WHICH AGREEMENT CONCLUDED

United Nations (UN) [1]
International Atomic Energy Agency (IAEA)

2) SPECIALIZED AGENCIES

Food and Agriculture Organization of the United Nations (FAO)
International Fund for Agricultural Development (IFAD)
International Labour Organisation (ILO)
International Maritime Organization (IMO)
International Monetary Fund (IMF)
International Telecommunication Union (ITU)
United Nations Educational, Scientific and Cultural Organization (UNESCO)
United Nations Industrial Development Organization (UNIDO)
Universal Postal Union (UPU)
World Bank
World Health Organization (WHO)
World Intellectual Property Organization (WIPO)
World Meteorological Organization (WMO)
World Tourism Organization (UNWTO)

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[1] Including the following UN Programmes and Regional Economic Commissions:

UN Programmes:

Office of the United Nations Disaster Relief Co-ordinator (UNDRO)
Office of the United Nations High Commissioner for Refugees (UNHCR)
United Nations Children's Fund (UNICEF)
United Nations Conference on Trade and Development (UNCTAD)
United Nations Development Programme (UNDP)
United Nations Environment Programme (UNEP)
United Nations Institute for Training and Research (UNITAR)
United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA)
United Nations University (UNU)
World Food Council (WFC)
World Food Programme (WFP)

Regional Economic Commissions:

Economic and Social Commission for Asia and the Pacific (ESCAP)
Economic and Social Commission for Western Asia (ESCWA)
Economic Commission for Africa (ECA)
Economic Commission for Europe (ECE)
Economic Commission for Latin America and the Caribbean (ECLAC)

3) INTERGOVERNMENTAL ORGANIZATIONS

Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)
Arab Civil Aviation Commission (ACAC)
Central American Corporation for Air Navigation Services (COCESNA)
Council of Europe (CE)
European Community (EC)
European Organisation for the Safety of Air Navigation (EUROCONTROL)
European Space Agency (ESA)
International Criminal Police Organization (ICPO-INTERPOL)
International Hydrographic Organization (IHO)
International Institute for the Unification of Private Law (UNIDROIT)
Interstate Aviation Committee (IAC)
League of Arab States (LAS)
Organization of American States (OAS)
Organization of Central American States (ODECA)
Pan American Institute of Geography and History (PAIGH)
World Trade Organization (WTO)

4) NON-GOVERNMENTAL ORGANIZATIONS

Aeronautical Radio Inc. (ARINC)
Aerospace Medical Association (AsMA)
Airports Council International (ACI)
Institute of Air Transport (ITA)
Institute of International Law (IDI)
Inter-American Statistical Institute (IASI)
International Academy of Aviation and Space Medicine (IAASM)
International Aeronautical Federation (FAI)
International Air Transport Association (IATA)
International Association of Aircraft Brokers and Agents (IABA)
International Association for the Physical Sciences of the Ocean (IAPSO)
International Automobile Federation (FIA)
International Business Aviation Council (IBAC)
International Chamber of Commerce (ICC)
International Commission on Illumination (CIE)
International Co-ordinating Council of Aerospace Industries Associations (ICCAIA)
International Council of Aircraft Owner and Pilot Associations (IAOPA)
International Federation of Air Line Pilots' Associations (IFALPA)
International Federation of Air Traffic Controllers' Associations (IFATCA)
International Federation of Helicopter Associations (IFHA)
International Geographic Union (IGU)
International Law Association (ILA)
International Maritime Radio Committee (CIRM)
International Organization for Standardization (ISO)
International Statistical Institute (ISI)
International Touring Alliance (AIT)
International Transport Workers' Federation (ITF)
International Union of Aviation Insurers (IUAI)

International Union of Geodesy and Geophysics (IUGG)
International Union of Railways (UIC)
Société internationale de télécommunications aéronautiques (SITA)

- END -

Legal Bureau

FAMILIARIZATION PROGRAMME

THE LEGAL BUREAU

1.   **General Introduction**

2.   **Functions of the Legal Bureau**

     a)   Provision of legal advice
     b)   Registration of agreements
     c)   Depositary functions
     d)   Collection of aviation law and decisions
     e)   Electronic on-line database
     f)   Coordination and cooperation with other international organizations
     g)   Other *ad hoc* functions

3.   **Legal bodies of the Organization**

     a)   the Legal Commission
     b)   the Legal Committee

4.   **Specific areas in the development and codification of international air law**

     a)   International Interests in Mobile Equipment (Aircraft Equipment)

     b)   Acts or offences of concern to the international aviation community and not covered by existing air law instruments

     c)   Legal Aspects of CSN/ATM Systems

     d)   Montreal Convention (1999)

     e)   Modernization of the Rome Convention of 1952

     f)   Article 83 *bis* of the Chicago Convention

Air Navigation Bureau

ICAO FAMILIARIZATION COURSE

AIR NAVIGATION BUREAU

SAFETY OVERSIGHT AUDIT (SOA)

1.   USOAP documents:

   Safety Oversight Manual, Part A — *The Establishment and Management of a State's Safety Oversight System* (Doc 9734)

   Safety Oversight Manual, Part B — *The Establishment and Management of a Regional Safety Oversight System* (Doc 9734)

   Safety Oversight Audit Manual (Doc 9735)

2.   ICAO documents referred to during an audit:

   Annex 1 — *Personnel Licensing*
   Annex 2 — *Rules of the Air*
   Annex 3 — *Meteorological Service for International Air Navigation*
   Annex 4 — *Aeronautical Charts*
   Annex 5 — *Units of Measurement to be Used in Air and Ground Operations*
   Annex 6 — *Operations of Aircraft*
      Part I   —   *International Commercial Air Transport — Aeroplanes*
      Part II   —   *International General Aviation — Aeroplanes*
      Part III —   *International Operations — Helicopters*
   Annex 7 — *Aircraft Nationality and Registration Marks*
   Annex 8 — *Airworthiness of Aircraft*
   Annex 10 — *Aeronautical Telecommunications*
   Annex 12 — *Search and Rescue*
   Annex 13 — *Aircraft Accident and Incident Investigation*
   Annex 14 — *Aerodromes*
   Annex 15 — *Aeronautical Information Services*
   Annex 16 — *Environmental Protection*
   Annex 18 — *The Safe Transport of Dangerous Goods by Air*
   Convention on International Civil Aviation (Doc 7300)
   Air Traffic Management (Doc 4444)
   Aircraft Operations (Doc 8168)
   Regional Supplementary Procedures (Doc 7030)
   Aerodrome Design Manual (Doc 9157)
      Part 1 — *Runways*
      Part 2 — *Taxiways, Aprons and Holding Bays*
      Part 3 — *Pavements*
      Part 4 — *Visual Aids*
      Part 5 — *Electrical Systems*
   Airport Planning Manual (Doc 9184)
      Part 1 — *Master Planning*
      Part 2 — *Land Use and Environmental Control*
      Part 3 — *Guidelines for Consultant/Construction Services*

   Airport Services Manual (Doc 9137)
      Part 1 — *Rescue and Fire Fighting*

Part 2 — *Pavement Surface Conditions*
Part 3 — *Bird Control and Reduction*
Part 5 — *Removal of Disabled Aircraft*
Part 6 — *Control of Obstacles*
Part 7 — *Airport Emergency Planning*
Part 8 — *Airport Operational Services*
Part 9 — *Airport Maintenance Practices*
Heliport Manual (Doc 9261)
Manual on Certification of Aerodromes (Doc 9774)
Manual on the ICAO Bird Strike Information System (IBIS) (Doc 9332)
Manual of Surface Movement Guidance and Control Systems (SMGCS) (Doc 9476)
Operation of New Larger Aeroplanes at Existing Aerodromes (Cir 305)
Accident/Incident Reporting Manual (ADREP Manual) (Doc 9156)
Manual of Aircraft Accident Investigation (Doc 6920)
Manual of Aircraft Accident and Incident Investigation (Doc 9756)
Training Guidelines for Aircraft Accident Investigators (Cir 298)
Aircraft Accident Digests (Circulars)
Accident/Incident Reporting (ADREP)
Aeronautical Information Services Provided by States (Doc 7383)
Aeronautical Chart Manual (Doc 8697)
World Geodetic System — 1984 (WGS-84) Manual (Doc 9674)
Manual on Airspace Planning Methodology for the Determination of Separation
*Manual on Implementation of a 300 m (1 000 ft) Vertical Separation Minimum Between
FL 290 and FL 410 Inclusive.* (Doc 9574)
Manual on Required Navigation Performance (RNP) (Doc 9613)
Manual on Simultaneous Operations on Parallel or Near-Parallel Instrument Runways
(SOIR) (Doc 9643)
Manual of Civil Aviation Medicine (Doc 8984)
Handbook on the International Airways Volcano Watch (IAVW) (Doc 9766)
Manual of Aeronautical Meteorological Practice (Doc 8896)
Manual of Runway Visual Range Observing and Reporting Practices (Doc 9328)
Human Factors Guidelines for Safety Audits Manual (Doc 9806)
Human Factors in Civil Aviation Security Operations (Doc 9808)
Human Factors Training Manual (Doc 9683)
Human Factors Guidelines for Air Traffic Management (ATM) Systems (Doc 9758)
Human Factors Guidelines for Aircraft Maintenance Manual (Doc 9824)
Manual on Establishment and Operation of Aviation Training Centres (Doc 9401)
*Manual of Procedures for Operations Inspection, Certification and Continued
Surveillance* (Doc 8335)
*Manual for the Establishment and Management of a State's Personnel
Licensing System* (Doc 9379)
Preparation of an Operations Manual (Doc 9376)
Airworthiness Manual (Doc 9760)
Volume I — *Organization and Procedures*
Volume II — *Design Certification and Continuing Airworthiness*
Manual on Testing of Radio Navigation Aids (Doc 8071)
*Manual on the Planning and Engineering of the Aeronautical Fixed
Telecommunication Network* (Doc 8259)
Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284)

1.   **ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME (USOAP)**

1.1   The ICAO Universal Safety Oversight Audit Programme (USOAP) was launched on 1 January 1999, pursuant to Assembly Resolution A32-11, and on the basis of the recommendations made by the Directors General of Civil Aviation (DGCA) Conference on a Global Strategy for Safety Oversight held in 1997. The Programme superseded the voluntary assessment programme established in 1995. It is managed and run by the Safety Oversight Audit Section in the Air Navigation Bureau.

1.2   The objective of USOAP is to promote global aviation safety through auditing Contracting States, on a regular basis, to determine States' capability for safety oversight by assessing the effective implementation of the critical elements of a safety oversight system and the status of States' implementation of safety-relevant ICAO Standards and Recommended Practices (SARPs), associated procedures, guidance material and safety-related practices.

1.3   The scope of the Programme was initially limited to Annex 1 — *Personnel Licensing*, Annex 6 — *Operation of Aircraft* and Annex 8 — *Airworthiness of Aircraft*. During the first cycle of audits (1999-2004), 181 Contracting States, two Special Administrative Regions (SARs) of China and three territories were audited. Of these, 162 Contracting States, as well as the two SARs of China and the three territories had received an audit follow-up mission by the end of the year 2004.

1.4   An Audit Findings and Differences Database (AFDD) was developed to record and analyse actual findings and departures from SARPs identified during the audits. The analysis conducted through the Audit Findings and Differences Database (AFDD) has enabled the identification of safety oversight related deficiencies and the prioritization of actions required to resolve safety concerns at a global, regional, State or a group of States level. Data gathered in the course of the follow-up missions was also entered in the AFDD, in order to keep track of the status of implementation of States' corrective action plans, and to update the information on the level of implementation of the critical elements of a State's safety oversight system.

1.5   In order to assist States in forming an opinion on the status of the safety oversight capability in audited States, ICAO made available to all Contracting States summary reports which included an abstract of the audit's findings, the corrective actions proposed by the State, the status of implementation of ICAO Annex provisions, and comments by ICAO on the overall soundness of the safety oversight system in each audited State. Summary reports were also distributed following an audit follow-up mission, indicating the progress made by the State concerned in the implementation of its corrective action plan.

1.6   Pursuant to Assembly Resolution A35-6 — *Transition to a comprehensive systems approach for audits in the ICAO Universal Safety Oversight Audit Programme (USOAP),* the Programme was expanded to audit the safety-related provisions contained in all safety-related Annexes to the *Convention on International Civil Aviation* under a comprehensive systems approach. This new phase of the Programme was launched on 1 January 2005, replacing the Annex-by-Annex approach which was used for the first audit cycle.

1.7   In preparation for the launching of safety oversight audits under the comprehensive systems approach, ICAO developed a series of audit tools: a State Aviation Activity Questionnaire, sixteen Compliance Checklists (one for each of the sixteen Annexes under the scope of the Programme) and eight audit protocols covering, respectively, the legal and organizational aspects and the six core audit areas identified in A35-6: personnel licensing, operation of aircraft, airworthiness of aircraft, air navigation services, aircraft accident and incident investigation and aerodromes. These tools assist both Contracting States and ICAO in the preparation and conduct of the audits.

1.8   In October 2002, the Safety Oversight Audit Section was certified under ISO standard *Quality Management Systems - Requirements: ISO 9001:2000.* Implementation of the quality management system has resulted in the streamlining of the activities of the Section, increasing the effectiveness and efficiency of the Programme. A re-certification audit was conducted by Moody International in October 2005, resulting in the renewal of the Section's ISO Certificate for another three years.

1.9   The Safety Oversight Audit Section regularly conducts safety oversight auditor training courses and regional safety oversight seminar/workshops aimed at State officials and the aviation industry in general, with the objective of increasing the awareness of States regarding their safety oversight responsibilities under the *Convention on International Civil Aviation*.

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48th ICAO FAMILIARIZATION COURSE

AIR NAVIGATION BUREAU

Unified Strategy Programme (USP) Unit

Technical work programme responsibilities

- o coordinate assistance to States in the performance of their safety oversight functions
- o encourage partnerships between States, or groups of States
- o promote regional cooperation initiatives
- o analyse findings and match donors and sponsors with States
- o plan, and conduct regional safety oversight seminars
- o develop guidance material on regional safety oversight organizations
- o report to the ICAO Council on assistance to States regarding safety oversight issues
- o Flight Safety Information Exchange (FSIX), a portal website
- o represent ICAO at international and regional safety oversight-related conferences and meetings

Manuals

- o *Safety Oversight Manual,* Part B – *The Development and Management of Regional Safety Oversight Systems* (Doc 9734)

ICAO FAMILIARIZATION COURSE

AIR NAVIGATION BUREAU

FLIGHT SAFETY (FLS)

Documents for Reference

Doc 7300 — Convention on International Civil Aviation
Annex 1 — *Personnel Licensing*
Annex 5 — *Units of Measurement to be Used in Air and Ground Operations*
Annex 6 — *Operation of Aircraft*
        Part I   — *International Commercial Air Transport —
                    Aeroplanes*
        Part II   — *International General Aviation — Aeroplanes*
        Part III   —   *International Operations — Helicopters*
Annex 7 — *Aircraft Nationality and Registration Marks*
Annex 8 — *Airworthiness of Aircraft*
Annex 16 — *Environmental Protection*
        Volume I   — *Aircraft Noise*
        Volume II —*Aircraft Engine Emissions*
Annex 18 — *The Safe Transport of Dangerous Goods by Air*
Doc 8168, PANS-OPS — *Procedures for Air Navigation Services —
Aircraft Operations*
        Volume I   — *Flight Procedures*
        Volume II —*Construction of Visual and Instrument Flight
        Procedures*

PANS-TRG, — *Procedures for Air Navigation Services — Training*
Doc 7192 — *ICAO Training Manuals*
Doc 9379 — *Manual of Procedures for Establishment and Management of a
State's Personnel Licensing System*
Doc 9401— *Manual on Establishment and Operation of Aviation Training
Centres*
Doc 9683 — *Human Factors Training Manual*
Doc 9758 — *Human Factors Guidelines for Air Traffic Management (ATM)
Systems*
Doc 9803 — *Line Operations Safety Audit (LOSA) Manual*
Doc 9806 — *Human Factors Guidelines for Safety Audits*
Doc 9808 — *Human Factors in Civil Aviation Security Operations*
Doc 9824 — *Human Factors Guidelines for Aircraft Maintenance Manual*
Doc 9835 — *Manual on the Implementation of the ICAO Language
Proficiency Requirements*
Doc 9811 RESTRICTED — *Manual on the Implementation of the Security
Provisions of Annex 6*
Doc 9841 — *Manual on the Approval of Flight Crew Training Organizations*
Doc 9859 — *Safety Management Manual*
Doc 8335 — *Manual of Procedures for Operations Inspection, Certification
and Continued Surveillance*

Doc 9365 — *Manual of All-Weather Operations* (Doc 9365)
Doc 9274 — *Manual on the Use of the Collision Risk Model (CRM) for ILS Operations*
Doc 9371 — *Template Manual for Holding, Reversal and Racetrack Procedures*
Doc 9284 — *Technical Instructions for the Safe Transport of Dangerous Goods by Air* and Supplement
Doc 9375 — *Dangerous Goods Training Programme*
Doc 9481 — *Emergency Response Guidance for Aircraft Incidents involving Dangerous Goods*
Doc 9368 — *Instrument Flight Procedures Construction Manual*
Doc 9760 — *Airworthiness Manual*
Doc 9388 — *Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft*
Doc 9376 — *Preparation of an Operations Manual*
Doc 9408 — *Manual on Aerial Work*
Doc 9501 — *Environmental Technical Manual on the use of Procedures in the Noise Certification of Aircraft*
Doc 9516 — *Guidance on the Preparation of a Pilot's Operating Handbook for Light Aeroplanes*
Doc 9625 — *Manual of Criteria for the Qualification of Flight Simulators*
Doc 9640 — *Manual of Aircraft Ground De/Anti-icing Operations*
Doc 9646 — *ICAO Engine Exhaust Emissions Data Bank* ()
Doc 9829 — *Guidance on the Balanced Approach to Aircraft Noise Management*
Circular 234 — *Human Factors Digest No. 5*
Circular 240 — *Human Factors Digest No. 7*
Circular 241 — *Human Factors Digest No. 8*
Circular 247 — *Human Factors Digest No. 10*
Circular 249 — *Human Factors Digest No. 11*
Circular 253 — *Human Factors Digest No. 12*
Circular 277 — *Human Factors Digest No. 14*
Circular 300 — *Human Factors Digest No. 15*
Circular 302 — *Human Factors Digest No. 16*
Circular 205 — *Recommended Method for Computing Noise Contours around Airports*
Circular 126 — *Guidance Material on SST Aircraft Operations*
Circular 95 — *The Continuing Airworthiness of Aircraft in Service*
Circular 303 — *Operational Opportunities to Minimize Fuel use and Reduce Emissions*
Circular 301 — *New Larger Aeroplanes — Infringement of the Obstacle Free Zone: Operational Measures and Aeronautical Study*

INTRODUCTION

The Flight Safety Section (FLS) is responsible for the development of Standards, Recommended Practices, Procedures and guidance material related to the operation, certification and airworthiness of aircraft including instrument procedures design, the licensing and training of personnel and the safe transport of dangerous goods by air. In addition, the Section is responsible for the Flight Safety and Human Factors Programme, the Controlled Flight into Terrain Programme, the Aviation Training Programme and activities related to the implementation and operation of a Safety Management System in Contracting States and ICAO and the safety aspects of air transport globalization and Aviation Security. A brief statement of the main duties for each FLS programme is provided in this document.

AIR NAVIGATION ASPECTS OF AVIATION SECURITY

- Ensure the best possible synergy between the specifications for safety and security
- Consider security-related aspects in the development of the safety specifications contained in the ICAO Annexes
- Assess the safety aspects of proposed security-related specifications
- Coordinate the work of the Air Navigation Commission with the work of the AVSEC Panel
- Coordinate the maintenance and implementation of the Air Navigation part of the ICAO Aviation Security Plan of Action

AIRWORTHINESS OF AIRCRAFT

- Design airworthiness requirements
- Develop aircraft certification requirements
- Ensure continuing airworthiness
- Consider crash survival and fire protection
- Certify automatic systems
- Assess registration and marking
- Develop airworthiness requirements for special operations
- Incorporate security into aircraft design
- Develop continuing airworthiness requirements of leased aircraft
- Develop aircraft maintenance requirements

AVIATION TRAINING POLICY AND STANDARDS

- Manage implementation of ICAO Aviation Training Policy and Standards Programme
- Oversight of ICAO training activities to ensure standardization
- Quality assurance for all ICAO Training Programmes
- Update of the existing parts of the *Training Manual* (Doc 7192) and development of new parts as required
- Manage the ICAO-endorsed Government Safety Inspector Training Programme
- Enhance regional/sub-regional training planning in all ICAO regions to ensure that training capacities are compatible with plans to implement facilities and services
- Develop audio-visual material
- Maintain the Aviation Training Directory database
- Develop the Aviation Training Directory to include new areas such as computer-based training and distance training
- Provide advice and support on training media matters

ENVIRONMENTAL MATTERS

- Coordinate the development of Standards and Recommended Practices (SARPs) for the control of aircraft engine emissions and aircraft noise

FLIGHT PROCEDURES

- Maintain of the *Procedures for Air Navigation Services — Aircraft Operations* (PANS-OPS, Doc 8168), Volume 1 — *Flight Procedures*
- Address PANS-OPS implementation problems
- Develop instrument procedures database integrity requirements
- Develop training guidelines for procedure designers
- Procedure design software validation

- General review of en-route criteria
- Develop flight procedures and obstacle clearance criteria based on RNAV systems
- Develop procedure design aspects of noise abatement procedures during SID
- Develop obstacle clearance criteria for VNAV in all phases of flight
- Develop instrument procedures for helicopters at heliports
- Update of the collision risk model for precision approach obstacle assessment
- Ensure adequacy of the obstacle free zone for new larger aeroplanes

FLIGHT SAFETY AND HUMAN FACTORS

- Contribute to the Human Factors-related aspects of the Strategic Objectives of ICAO for 2005-2010
- Ensure proactive integration of Human Factors knowledge into technology and systems design
- Develop Human Factors-related provisions in Annexes and Procedures for Air Navigation Services (PANS) and supporting guidance material
- Monitor compatibility of Standards and Recommended Practices being developed in all fields of air navigation with Human Factors principles and propose amendments whenever required
- Organize regional seminars and worldwide symposia
- Interact with the research community to support the activities of the Flight Safety and Human Factors Programme

OPERATION OF AIRCRAFT

- Strengthen Air Operator Certificate (AOC)
- Introduce critical elements of a State regulatory system to Annex 6 operational provisions
- Update aircraft performance requirements
- Update crew training responsibilities in current industry/regulatory practices
- Add provisions to Annex 6, Part I introducing single engine IMC requirements
- Review and update Annex 6, specifically Part II — *General Aviation* and Part III — *Helicopters*
- Monitor units of measurement

PERFORMANCE BASED NAVIGATION

- Develop common understanding of the RNP concept, and the relationship between RNP and RNAV functionality;
- Develop operational requirements related to navigation performance for each phase of flight;
- Verify whether the RNP concept adequately addresses the navigation performance requirements for each phase of flight;
- Address of the need for a more specific means of indicating RNP capability in the flight plans;
- Address the adequacy of existing guidance concerning the navigation infrastructure requirements for various combinations of RNP type and navigation systems;
- Address the adequacy of existing provisions and guidance material concerning the operational impact, for both pilots and air traffic control (ATC), of changes in the status of navigation aids on the RNP capability of aircraft
- Conduct an awareness and training campaign for performance based navigation
- Execute an implementation programme for performance based navigation

PERSONNEL LICENSING

- Develop and maintain provisions relating to licensing in Annex 1
- Maintain the *Manual of Procedures for Establishment and Management of a State's Personnel Licensing System* (Doc 9379)
- Participate in the personnel licensing element of USOAP
- Provide advice to States on the implementation of Annex 1 Standards

PROGRAMME FOR THE PREVENTION OF CONTROLLED FLIGHT INTO TERRAIN AND APPROACH AND LANDING ACCIDENTS

- Develop Controlled Flight Into Terrain (CFIT) CD-ROM
- Develop procedures for prevention of controlled flight into terrain
- Develop quality assurance guidance material for instrument procedure design that will ensure navigation data integrity

SAFETY MANAGEMENT SYSTEMS

- Harmonize and develop provisions regarding safety management systems in Annexes and relevant material
- Develop model regulations for States that would support an SMS based regulatory approach to the management of safety
- Develop guidance material to address the integration of safety management practices by national oversight authorities, as well as the application of SMS concepts and practices in smaller aviation organizations
- Develop the necessary course materials to deliver the programme of regional training courses to directly enable States to implement SMS
- Develop the necessary course materials for a "training the trainers"course

SAFE TRANSPORT OF DANGEROUS GOODS BY AIR

- Develop Standards and Recommended Practices (SARPs) and technical instructions for the safe air transport of dangerous goods and the detailed specifications to support them
- Develop guidance on emergency response procedures to aircraft incidents involving dangerous goods

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ICAO FAMILIARIZATION COURSE
AIR NAVIGATION BUREAU
AIRCRAFT ACCIDENT INVESTIGATION AND PREVENTION (AIG)

Accident Investigation and Prevention (AIG) Section

Technical work programme responsibilities

❍ maintaining the SARPs in Annex 13
❍ monitoring developments in accident investigation techniques and practices
❍ monitoring developments in system safety concepts and practices to keep the prevention programme current
❍ contributing to ICAO safety projects such as the prevention of controlled flight into terrain (CFIT), reduction of approach and landing accidents (ALAR) and the safety oversight audit programme
❍ analysing accident and incident data
❍ contributing to ICAO's programme on human factors in aviation safety
❍ conducting and participating in seminars on accident investigation and prevention
❍ facilitating the international exchange of aviation safety data
❍ Standardize taxonomies for occurrence reporting systems

AIG maintains a computer database:

❍ accident/incident data reporting (ADREP) system which now comprises over 33 000 reports

Council committee, AN panels and study groups

Flight Recorder Panel (FLIRECP)
Safety Indicators Study Group (SISG)
Accident Investigation Methodology Study Group (AIMSG)
Hazards at Accident Sites Study Group (HASSG)
Funding of Accident Investigation Costs Study Group (FAICSG)

Annexes and PANS

❍ Annex 13 — *Aircraft Accident and Incident Investigation*, Ninth Edition - July 2001

**Manuals and
Circulars**

❍ *Manual of Aircraft Accident and Incident Investigation* (Doc 9756),
Part I — Organization and Planning, First Edition - 2000,
Part IV — *Reporting*, First Edition - 2003

❍ *Manual of Aircraft Accident Investigation* (Doc 6920), Fourth
Edition - 1970

❍ *Accident Prevention Manual* (Doc 9422), First Edition - 1984

❍ *Training Guidelines for Aircraft Accident Investigators* (Circ 298)

❍ *Guidance on Assistance to Aircraft Accident Victims and their
Families* (Circ 285)

❍ *Aircraft Accident Digest 1992 (No. 39)* (Circ 296)

❍ *Aircraft Accident Digest 1991 (No. 38)* (Circ 290)

❍ *Aircraft Accident Digest 1990 (No. 37)* (Circ 263)

❍ *Accident/Incident Reporting (ADREP) Annual Statistics — 2002*
(Circ 297)

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ICAO FAMILIARIZATION COURSE

AIR NAVIGATION BUREAU

AIR TRAFFIC MANAGEMENT (ATM)

Documents for reference

The Convention on International Civil Aviation (Articles 3, 9, 12, 25 and 28)
Annex 2 — *Rules of the Air*
Annex 11 — *Air Traffic Services*
Annex 12 — *Search and Rescue*
Procedures for Air Navigation Services — Air Traffic Management
    (PANS-ATM, Doc 4444)
Regional Supplementary Procedures (Doc 7030), Part I
Air Traffic Services Planning Manual (Doc 9426)
International Aeronautical and Maritime Search and Rescue (IAMSAR)
    Manual (Doc 9731)
Satellite-aided Search and Rescue — The COSPAS-SARSAT System (Circ 185)
Global Air Traffic Management Operational Concept (Doc 9854)

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1. **Duties of the ATM Section**

   Brief statement of the main duties of the Air Traffic Management (ATM) Section.

2. **Provisions in the field of air traffic management and
   their application by Contracting States**

   a) rules applicable by pilots;

   b) establishment of air traffic services (ATS);

   c) procedures for use by air traffic services personnel;

   d) regional supplementary procedures; and

   e) regional ATS airspace organization and requirements for the provision of air traffic
       services.

3.   **Guidance material in the field of air traffic management**

a) *Air Traffic Services Planning Manual* (Doc 9426);

b) *Manual of Radiotelephony* (Doc 9432);

c) *Manual concerning Interception of Civil Aircraft (MICA)* (Doc 9433);

d) *Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations* (Doc 9554);

e) *Manual on Implementation of a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive* (Doc 9574);

f) *Manual on Required Navigation Performance (RNP)* (Doc 9613);

g) *Manual on Simultaneous Operations on Parallel or Near-Parallel Instrument Runways* (Doc 9643);

h) *Manual on Airspace Planning Methodology for the Determination of Separation Minima* (Doc 9689);

i) *Manual of Air Traffic Services Data Link Applications* (Doc 9694);

j) *Global Air Navigation Plan for CNS/ATM Systems* (Doc 9750);

k) *Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual* (Doc 9830);

l) *Manual on Safety Management in Air Traffic Services* (Doc 9841);

m) *Global Air Traffic Management Operational Concept* (Doc 9854);

n) *Manual of Operating Procedures and Practices for Regional Monitoring Agencies in Relation to the Use of a 300 m (1 000 ft) Vertical Separation Minimum Above FL 290*;

o) *Aerodrome Flight Information Service (AFIS)* (Circ 211);

p) *Manual on Prevention of Runway Incursions*; and

q) *Manual on in-flight emergency response procedures for ATC*

4.   **Major projects in the field of air traffic management**

a) global air traffic management;

b) global air navigation plan;

c) global air traffic management operational concept

— ATM system requirements

— performance

— transition;

d) separation between aircraft, required navigation performance (RNP) and area navigation (RNAV);

e) air-ground data link;

f) airspace/airport congestion/capacity and runway safety;

g) civil/military coordination;

h) in-flight emergency response procedures for controllers;

i) in-flight emergency response procedures for ATC;

j) update the ICAO flight plan;

k) ATM procedures;

l) safety oversight missions;

m) air traffic contingency measures;

n) wake turbulence;

o) ATS safety management; and

p) safety management systems

5. **Provisions in the search and rescue field and their application by Contracting States**

a) establishment and organization of search and rescue services;

b) procedures for alerting of search and rescue services;

c) procedures for use by search and rescue services and facilities;

d) regional supplementary procedures; and

e) regional organization of areas of responsibility and requirements for the provision of search and rescue services and facilities.

6.   **Guidance material in the SAR field**

  a) *International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual*, Volume I — *Organization and Management*, Volume II — *Mission Coordination* and Volume III — *Mobile Facilities* (Doc 9731); and

  b) *Satellite-aided Search and Rescue – The COSPAS-SARSAT System* (Circ 185).

7.   **Relations with international organizations**

  a) International Air Transport Association (IATA);

  b) International Federation of Air Line Pilots' Associations (IFALPA);

  c) International Federation of Air Traffic Controllers' Associations (IFATCA);

  d) International Maritime Organization (IMO); and

  e) Cospas-Sarsat[1] Council and Joint Committee.

8.   **35th Session of the Assembly – Action relating to air traffic management**

  a) performance of the air navigation system;

  b) uniform approach to safety management and safety assessment;

  c) preparation for worldwide conference; and

  d) advanced surface movement guidance and control systems (A-SMGCS).

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[1] Cospas = space system for search of vessels in distress
  Sarsat = search and rescue satellite-aided tracking

ICAO FAMILIARIZATION COURSE
AIR NAVIGATION BUREAU
COMMUNICATIONS, NAVIGATION, AND SURVEILLANCE (CNS) SECTION

DOCUMENTS FOR REFERENCE

Annex 10 — *Aeronautical Telecommunications*,
   Volume I — *Radio Navigation Frequencies*;
   Volume II — *Communication Procedures including those with PANS status*;
   Volume III — *Communication Systems*,
        Part I — *Digital Data Communication Systems*,
        Part II — *Voice Communication Systems*;
   Volume IV — *Surveillance Radar and Collision Avoidance Systems*;
   Volume V — *Aeronautical Radio Frequency Spectrum Utilization*
Manual on Testing of Radio Navigation Aids (Doc 8071)
Manual on the Planning and Engineering of the Aeronautical Fixed Telecommunication Network
   (Doc 8259)
Report of the Eleventh Air Navigation Conference (2003) (Doc 9828, AN-CONF/11)
Manual of the Secondary Surveillance Radar (SSR) Systems (Doc 9684)
Manual on Mode S Specific Services (Doc 9688)
Handbook on Radio Frequency Spectrum Requirements for Civil Aviation including Statement of
   Approved ICAO Policies(Doc 9718)
Comprehensive Aeronautical Telecommunication Network (ATN) Manual (Doc 9739)
Manual on HF Data Link (Doc 9741)
Manual on VHF Digital link (VDL) Mode 2 (Doc 9776)
Manual on ATS Ground-Ground Voice Switching and Signalling (Doc 9804)
Manual on VHF Digital Link (VDL) Mode 3 (Doc 9805)
Manual on VHF Digital Link (VDL) Mode 4 (Doc 9816)
Global Navigation Satellite System (GNSS) Manual (Doc 9849)
Manual on Guidelines for the Use of the Public Internet for Aeronautical Applications (Doc 9855)
   (in preparation)
Airborne Collision Avoidance System (ACAS) Manual (Doc 9863) (in preparation)
*Manual on Universal Access Transceiver (UAT) (*Doc 9861) (in preparation)
Manual on the Use of the Internet Protocol Suite (IPS) in the Aeronautical Communications
   Infrastructure (in preparation)
Circular on Airborne Separation Assistance System (ASAS) (in preparation)

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1.   The activities of ICAO in the communications, navigation, and surveillance (CNS) fields are undergoing continuous and progressive updating of regulatory provisions, procedures and guidance material to facilitate the introduction of the CNS systems which were endorsed at the Eleventh Air Navigation Conference in 2003. The following outline indicates the topics which will be presented orally, which, in conjunction with the reference documents, will provide the course participants with a good overview of the CNS activities.

2.   The primary function of the CNS Section is to maintain the currency of Annex 10 through the development of Standards and Recommended Practices (SARPs) for the CNS systems and to provide

guidance material on communications, navigation, and surveillance systems to meet worldwide and regional requirements. Additionally, the CNS Section represents ICAO in coordination matters with the International Telecommunication Union (ITU) on the electromagnetic spectrum allocation to aeronautical services.

3.　　　　Panels of the Air Navigation Commission and air navigation study groups under the responsibility of the CNS Section are listed below:

　　　　　a) Aeronautical Communications Panel (ACP);

　　　　　b) Navigation Systems Panel (NSP);

　　　　　c) Surveillance and Conflict Resolution Systems Panel (SCRSP); and

　　　　　d) Aviation Use of the Public Internet Study Group (AUPISG).

The work programmes for the above-referenced panels are attached for your information.

Attachment:　Work programmes for ACP, NSP and SCRSP

ATTACHMENT

(EXTRACTS FROM THE AIR NAVIGATION COMMISSION AIDE MEMOIRE)

4.   **Aeronautical Communications Panel (ACP)**

4.1   **Terms of reference**

To undertake specific studies, as approved by the Air Navigation Commission and reflected in the work programme of the panel, with a view to advising the ANC on technically practical and operationally feasible ICAO provisions, as necessary, to meet the objectives specified in the work programme.

In fulfilling this mandate, the panel will address technical and operational issues to meet ATM functional and performance requirements related to the development and implementation of aeronautical telecommunication systems. In these activities, the panel will ensure the global interoperability of these systems, compliance with operational requirements, as required, and takes into account established implementation strategies. The panel develops draft ICAO material in support of the availability and protection of electromagnetic spectrum for civil aviation.

4.2   **Work programme**

ANC Task No.	Work Programme Item	Estimated Completion Date
CNS-7001 CNS-9102 CNS-9403 CNS-9603 CNS-9902	1) Conduct the necessary studies for the development and standardization of communication systems in support of current and future aeronautical safety and security applications. This task includes: — draft SARPs and guidance material for the UAT; — new ATN SARPs and technical provisions; — investigation of the feasibility to introduce new AMSS technologies; and — investigation of technical issues related to the downlinking of duress and audio/video signals from aircraft in emergency situations over existing or new digital links and develop proposals for further work, as required.	2007
CNS-9102 CNS-9403 CNS-9603	2) Assess requirements for the enhancement of existing provisions in the light of evolving technical and operational requirements while maintaining liaison with other panels. This task includes:	2004

ANC Task No.	Work Programme Item	Estimated Completion Date
	— enhancements to ATN, air/ground digital or data links, air-ground and ground-ground voice communication links; and — revision of existing recording provisions in Annex 10.	
CNS-7001 CNS-7402 CNS-8702 CNS-9403 CNS-9602 CNS-9901	3) Monitor actual implementation of communication systems in order to provide expert advice as necessary to maintain the relevancy and currency of SARPs, detailed technical specifications and guidance material. This task includes: — current provisions for HFDL, VDL Mode 2, VDL Mode 3, VDL Mode 4, VHF DSB-AM voice, AFS, voice switching signalling and ATN, including frequency assignment planning material.	Ongoing
CNS-9403	4) Identify as required, elements, operations or functions that will have institutional implications in the provision of communication services.	Ongoing
CNS-7002 CNS-0001 CNS-0401	5) Develop material relevant to the protection of aeronautical electromagnetic spectrum from interference and incursion by non-aeronautical interests. This task includes: — ICAO position for ITU World Radiocommunication Conference 2007; — material for submission to relevant ITU-R study groups; and — material on interference from non-aeronautical sources.	Ongoing

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6. Navigation Systems Panel (NSP)

6.1   Terms of reference

To undertake specific studies, as approved by the Air Navigation Commission and reflected in the work programme of the panel, with a view to advising the ANC on technically practical and operationally feasible ICAO provisions, as necessary, to meet the objectives specified in the work programme.

In fulfilling this mandate, the panel will address technical and operational issues related to radio navigation systems to ensure their compatible operation to meet ATM functional and performance requirements, and to support implementation strategies.

6.2   Work programme

ANC Task No.	Work Programme Item	Estimated Completion Date
CNS-9401	1) Determine navigation system performance requirements to support advanced applications of GNSS.	2007
"	2) Develop, as required, amendments to SARPs and guidance material for GNSS in Annex 10 for:	
	a) ground-based augmentation system (GBAS) capable of supporting Category II/III operations;	2007
	b) ground-based regional augmentation system (GRAS) capable of supporting en-route, terminal and APV operations;	2005
	c) GNSS augmentations capable of supporting aerodrome surface and guided take-off, missed approach and curved approach operations;	after 2007
	d) interface between satellite-based augmentation systems (SBAS) and dual frequency SBAS;	2007
	e) GPS modernization;	2007
	f) GLONASS modernization; and	2007
	g) Galileo.	2007
"	3) Develop guidance material for inclusion in various ICAO documents to support operational implementation strategies for advanced applications and elements identified in Tasks 1 and 2.	Ongoing
CNS-0402	4) Address technical and operational issues related to navigation aids and develop material, as necessary, to ensure their compatible operation and integration with evolving GNSS including:	
	a) application of GNSS and other navaids in support of	Ongoing

ANC Task No.	Work Programme Item	Estimated Completion Date
	RNAV and RNP;	
	b) GNSS integration with other navigation systems;	2005
	c) review of Annex 10 SARPs for ground-based radio navigation aids;	2005
	d) NOTAMs/status monitoring/ knowledge of aircraft navigation performance/service levels; and	2005/2007
CNS-9402	e) testing of radio navigation aids.	
CNS-9401	5) Identify, as required, elements, functions, implementation and operation aspects of GNSS that could have institutional implications.	Ongoing
CNS-7002	6) Develop, as necessary, material to protect RF spectrum required to support present and future aeronautical applications of GNSS and other radio navigation systems in close co-ordination with the frequency management activities being progressed by ACP.	Ongoing

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7. Surveillance and Conflict Resolution Systems Panel (SCRSP)*

7.1 Terms of reference

To undertake specific studies, as approved by the Air Navigation Commission and reflected in the work programme of the panel, with a view to advising the ANC on technically practical and operationally feasible ICAO provisions, as necessary, to meet the objectives specified in the work programme.

In fulfilling this mandate, the panel will address technical and operational issues related to surveillance and conflict resolution systems to ensure their compatible operation and to support implementation strategies.

7.2 Work programme

ANC Task No.	Work Programme Item	Estimated Completion Date
CNS-9701	1) Develop, as necessary, ICAO material to meet the operational and technical requirements for an airborne separation assurance system (ASAS).	2004
CNS-7901	2) Concurrent with the above work, develop and review proposals for: a) Annex material and operational and technical procedures for conflict resolution and collision avoidance systems; and b) Annex material and technical procedures for the use of air and ground surveillance systems supporting traffic advisories, conflict detection and resolution.	2004
	3) Develop the concept of required surveillance performance (RSP).	2004
CNS-9601	4) Develop, as necessary, ICAO material to meet the technical requirements for existing, and emerging, surveillance systems and architectures.	On-going

* The work programme of the SCRSP will be reviewed by the ANC during its 171st Session.

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ICAO FAMILIARIZATION COURSE

AIR NAVIGATION BUREAU

METEOROLOGY (MET)

Documents for reference

Annex 3 (15th edition) incorporating amendments up to and
  including Amendment 73
Regional Plan Publications — Part VI (Meteorology)
Doc 9328 — *Manual of Runway Visual Range Observing and
  Reporting Practices*
Doc 9377 — *Manual on Co-ordination between Air Traffic
  Services, Aeronautical Information Services and Aeronautical
  Meteorological Services*
Doc 8896 — *Manual of Aeronautical Meteorological Practice*
Doc 9691 — *Manual on Volcanic Ash, Radioactive Material*
Doc 7474 — *Working Arrangements between ICAO and WMO*

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1. **Provision of meteorological services**

2. **Regulatory documents**

   - Annex 3
   - Manual of Aeronautical Meteorological Practice
   - Regional Plan Publications (including FASID) — Part VI (Meteorology)

3. **Co-ordination between MET and the Civil Aviation Authorities**

   - Location of MET offices and observing instruments
   - ATS/MET co-ordination
   - COM/MET co-ordination
   - Cost recovery

4. **ICAO/WMO relations**

   - WMO
   - Working arrangements
   - Roles of the two organizations in aeronautical meteorological activities

5.   **Role of ICAO Regional Offices in the field of aeronautical meteorology**

6.   **Some current MET activities**

- The world area forecast system (WAFS)
- ICAO satellite broadcasts
- Automatic weather stations
- International Airways Volcano Watch
- Uplink of OPMET information using data link
- Turbulence
- Low-level wind shear
- Migration towards digital codes (e.g. the WMO BUFR code form)
- Quality management
- Other activities

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ICAO FAMILIARIZATION COURSE

AIR NAVIGATION BUREAU

AERODROMES, AIR ROUTES AND GROUND AIDS (AGA)

Documents for reference

Annex 14, Volumes I and II
Doc 9184-AN/902, Airport Planning Manual
Doc 9157-AN/901, Aerodrome Design Manual
Doc 9137-AN/898, Airport Services Manual
Doc 9476-AN/927, Manual of Surface Movement
  Guidance and Control Systems
Doc 9332-AN/909, Manual on the ICAO Bird Strike
  Information System (IBIS)
Doc 9150-AN/899, Stolport Manual
Doc 9261-AN/903, Heliport Manual
Doc 9774-AN/969, Manual on Certification of Aerodromes

Cir 305 – AN/177, Operation of New Larger Aeroplanes at Existing
Aerodromes

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1.   The role of the AGA Section in ICAO

1.1   Technical subjects covered by AGA Section

1.2   Annex 14
        -    Purpose and objective of Annex 14
        -    What needs to be agreed internationally
        -    Standards, Recommended Practices and guidance material
        -    Contents of Annex 14, Volumes I and II
        -    Differences to Annex 14, Volumes I and II
        -    Other Annexes related to airports
1.3   Technical manuals related to airports
        -    Objective of manuals
        -    Scope of airport manuals
        -    Contents of different manuals
        -    New manuals
1.4   Meetings at which airport technical matters are discussed
        -    AGA Divisional Meetings
        -    Air Navigation Conferences
        -    Regional Air Navigation Meetings
        -    Assembly
1.5   Panels and Working groups concerned with airports
        -    Aerodromes Panel
        -    Rescue and Fire Fighting Working Group

- Aerodrome Operations and Services Working Group
- Aerodrome Design Working Group
- Visual Aids Working Group
- Heliport Design Working Group

1.6   ICAO Bird Strike Information System (IBIS)

2.   AGA work in Regional Offices

2.1   Offices with AGA technical officers
2.2   Type of work performed
2.3   Workshops

3.   Video presentation

4.   Trends and developments in the airport field

4.1   Airport/airspace congestion
4.2   Time required for development of airports and importance of good forecasts
4.3   Rapidly changing airport scene
- Increase in operations
- New aircraft
- Low visibility
- New ground equipment
4.4   Environmental issues
- Noise, land-use planning
4.5   Airports privatization and safety
4.6   Aerodrome safety management

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ICAO FAMILIARIZATION COURSE

AIR NAVIGATION BUREAU

AVIATION MEDICINE (MED)

Documents for reference

Annex 1 — *Personnel Licensing*

Doc 8984, *Manual of Civil Aviation Medicine*

Doc 9654, *Manual on Prevention of Problematic Use of Substances in the Aviation Workplace*

Doc 9815, *Manual on Laser Emitters and Flight Safety*

INTRODUCTION

The MED Section is responsible for: undertaking studies and providing guidance on medical problems and aspects associated with flight operating conditions and flight crew performances and licensing standards, conducting regional civil aviation medicine seminars, air traffic control staff performance, licensing standards and conditions of work, biological and psychological problems relating to passengers and crews, equipment, first aid and survival, and the medical aspects of accident investigation and prevention, the preparation, monitoring and amendment of the medical portion of Annex 1, the *Manual of Civil Aviation Medicine* and the *Manual on Prevention of Problematic Use of Substances in the Aviation Workplace* and the *Manual on Laser Emitters and Flight Safety.* A brief statement of the responsibilities of the MED Section in ICAO are provided in this document.

- continuous assessment of all medico-biological aspects of flight safety
- assessment of environmental conditions of work of aviation personnel, biological and psychological matters relating to the health and well-being of passengers and crews, medical aspects of accident investigation and prevention
- specialized aeromedical advice to Contracting States, ICAO bodies and international organizations
- development and maintenance of medical Standards and Recommended Practices (SARPs)
- development and maintenance of public health SARPs to prevent the spread of communicable diseases by air travel
- development and maintenance of manuals on civil aviation medicine, problematic use of substances within the aviation workplace and laser emitters and flight safety
- development and direction of civil aviation medicine seminars

ASSESSING CURRENT PROBLEMS IN CIVIL AVIATION MEDICINE, INCLUDING:

- preparedness planning (aviation aspects) to reduce the spread by air travel of communicable diseases
- protection of passenger and crew health and well-being
- cabin air quality
- prevention of drug abuse in the workplace
- laser emitters and flight safety
- upper age limits for flight crew members
- medical aspects of flight crew fatigue
- effects of jet-lag
- acceptability of medications for licence holders
- implications of HIV seropositivity and AIDS in civil aviation
- human factors, aeromedical aspects
- disinsection of aircraft
- harmonized contingency phased response plan for international airports

RESPONSIBLE FOR OR CONSULTED ON THE MEDICAL PROVISIONS CONTAINED IN THE FOLLOWING ANNEXES:

- Annex 1 — *Personnel Licensing*
- Annex 2 — *Rules of the Air*
- Annex 6 — *Operation of Aircraft*
     Part I — *International Commercial Air Transport — Aeroplanes*
- Annex 9 — *Facilitation*
- Annex 11 — *Air Traffic Services*
- Annex 13 — *Aircraft Accident Investigation*
- Annex 14 — *Aerodromes*
     Volume I — *Aerodrome Design and Operations*

— END —

ICAO FAMILIARIZATION COURSE

AIR NAVIGATION BUREAU

AERONAUTICAL INFORMATION SERVICES AND AERONAUTICAL CHARTS (AIS/MAP)

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Documents for Reference

Annex 4 Aeronautical Charts
Annex 15 Aeronautical Information Services
Doc 8400 PANS-ICAO Abbreviations and Codes
Doc 7030 Regional Supplementary Procedures
Doc 8126-AN/872/4 Aeronautical Information Services Manual
Doc 9674-AN/946 World Geodetic System - 1984 (WGS-84) Manual
Doc 8697-AN/889/2 Aeronautical Chart Manual
Doc 7383-AIS/503 Aeronautical Information Services Provided by States
Doc 7910 Location Indicators
Doc 8585 Designators for Aircraft Operating Agencies, Aeronautical
Authorities and Services
Doc 8643 Aircraft Type Designators

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1. **The role of the AIS/MAP Section in ICAO**

 1.1 Aeronautical Information Services

   1.1.1 The purpose and functions of AIS
   1.1.2 States' AIS responsibilities
   1.1.3 Development of Standards, Recommended Practices and Procedures for AIS (Annex 15)
   1.1.4 Organization and structure of AIS, and problems of implementation
   1.1.5 Development and use of AIS documentation and guidance material:
     a) Aeronautical Information Services Manual (Doc 8126)
     b) World Geodetic System - 1984 (WGS-84) Manual (Doc 9674)
   1.1.6 Automation of Aeronautical Information Services

 1.2 Aeronautical Cartographic Services

   1.2.1 Development of Standards and Recommended Practices for Aeronautical Charts (Annex 4)
   1.2.2 Organization and status of aeronautical charting, and problems of implementation
   1.2.3 Development and use of documentation and guidance material on Aeronautical Charts: Aeronautical Chart Manual (Doc 8697)
   1.2.4 Automation of aeronautical cartographic services

1.3   Other activities and responsibilities of AIS/MAP Section at ICAO Headquarters

      1.3.1   Development and control of ICAO Abbreviations and Codes
              (PANS-ABC: Doc 8400)
      1.3.2   Registration of Designators for Aircraft Operating Agencies and Authorities
              (Doc 8585)
      1.3.3   Registration of Aircraft Type Designators (Doc 8643)
      1.3.4   Information on AIS Provided by States (Doc 7383)
      1.3.5   Publication of Location Indicators (Doc 7910)
      1.3.6   Maintenance of the Airport Characteristics Data Bank (ACDB)
      1.3.7   Maintenance of AIP Critique programme
      1.3.8   Maintenance of AIS and aeronautical chart libraries
      1.3.9   AIS/MAP Seminar programme
      1.3.10   Development of web-based services:
         a)   Air Navigation Plan information and charting service
         b)   ICAO Five letter name code system

2.   AIS/MAP Regional Activities and Responsibilities

2.1   Preparation of material for Regional Air Navigation Meetings, and planning and
      implementation regional groups (PIRGs)
2.2   Consideration of regional AIS and MAP problems
2.3   Publication and updating of regional air navigation plan publications (ANPPs) and facilities
      and services implementation documents (FASIDs)
2.4   Publication and updating of Regional Supplementary Procedures (Doc 7030)

— END —

Bureau of Administration and Services

**FUNCTIONS OF THE
BUREAU OF ADMINISTRATION AND SERVICES**

References:	Charter of the United Nations (Articles 100-101) Agreement Between the United Nations and the International Civil Aviation Organization (Doc 7970) Standards of Conduct (Personnel Instruction 1.4)

OFFICE OF THE DIRECTOR

1.   The **Office of the Director** directs, coordinates and controls the work of personnel, language, publications, information and communication technology, conference and office services, registry, distribution and document sales, Assembly and Council Secretariat, web, library and archives, and their related administrative fields. It also formulates, interprets and advises on administrative policy matters related to those fields. A description of the functions of the branches, sections and offices under the supervision of the Office of the Director is given below.

ASSEMBLY AND COUNCIL SECRETARIAT

2.   The **Assembly and Council Secretariat (ACS)** is a unit of the Bureau of Administration and Services responsible for providing Secretariat assistance to the Plenary and Executive Committee meetings of the Assembly and to meetings of the Council. Its tasks include the preparation of the Council's sessional work programmes and orders of business; provision of précis-writing services for the above-mentioned meetings as well as air law conferences and other meetings on request; and monitoring of follow-up action taken on decisions of the Council and the Assembly.

WEB, LIBRARY AND ARCHIVES

3.   The **Web, Library and Archives (WLA)** acts as webmaster of ICAO's public website, the ICAO-NET and the eSHOP. WLA is also responsible for CD-ROM production, operation of the Headquarters Library and for the maintenance of the Organization's archival records. WLA functions include:

   a) **ICAO public website (English)** – the design, development and maintenance of a website for the general public with ICAO-related information and documentation in English, and with some documents in other languages;

   b) **ICAO public website (French)** – the provision of a website to the general public with ICAO-related information and documentation using a French language interface and French documents. The French website is a copy of the English website;

   c) **ICAO-NET website** – the design, development and maintenance of a restricted website devoted to ICAO Contracting States, National Delegations and some international organizations offering ICAO restricted information and documentation and the maintenance of a database of all ICAO-NET focal points. The ICAO-NET includes:

     i)   **State Letter Electronic Distribution (SLED)** – This application provides ICAO Contracting States and international organizations with ICAO State Letters in all languages. E-mail notification of each State Letter placement on the ICAO-NET is sent to related focal points;

     ii)   **Electronic publications** – Annexes in English and French, all Annual Reports and all Conventions and Protocols can be accessed. There are also some Circulars, documents and other ICAO publications available; and

     iii) **USOAP Audit Summary Reports** – This application provides ICAO Contracting States and international organizations with ICAO Audit Summary Reports in all available language versions.

d) **ICAO eSHOP –** This is a commercial website which offers ICAO publications and information services through an annual subscription fee. There are currently four services offered: Conventions and Protocols, Annexes, Air Traffic Management and Annual Reports;

e) **CD-ROM Annexes to the Convention on International Civil Aviation** – This is a saleable product which provides all Annexes to the Convention on International Civil Aviation and their Supplements on a single CD-ROM;

f) **CD-ROM Air Traffic Management –** Another saleable product prepared by WLA. It provides all ICAO publications related to Air Traffic Management on a single CD-ROM;

g) **Production of new CD-ROM titles** – WLA prepares new CD-ROM titles (usually around 10 a year), including ad-hoc ones, as well as those required for various meetings;

h) **Management and distribution of serials by the Library** – Over 100 journals are received through purchase or donation and made available to ICAO staff and National Delegations;

i) **Library reference and public services –** Numerous questions and requests for information and documentation are answered directly, through e-mail or over the phone. The Library is also open to the general public;

j) **Library collection management (monographs, ICAO and UN documentation) –** Around 200 books, dictionaries and technical papers are purchased annually and numerous UN documents are received for the use of the ICAO Secretariat. They are all processed and made available to Library users;

k) **Automated Library System (ATLAS)** – This automated system is used to manage the existing ICAO Library collection and enables web-based access to its catalogue;

l) **ISBN/ISSN assignment –** WLA provides bar-code labels for inclusion on all saleable ICAO publications and maintains a publicly accessible web-based list of ISBN/ISSN numbers;

m) **ICAO document depository programme –** The Archives depository programme includes the collection, processing, storage, preservation and disposal of all ICAO printed publications, registry files, and personnel and financial records;

n) **Archives reference service** – This service offers access to the wealth of ICAO's historical records, information and documentation. An increasing number of ICAO archival documents is being made available on the web; and

o) **Records preservation** – Provides permanent conservation of various ICAO records through microfilming or scanning. A number of historical records has been scanned and prepared for the web. They include Assembly documentation, news releases and previous editions of Annexes, among others. A large portion of personnel files has also been digitized.

THE HUMAN RESOURCES BRANCH

4.   The **Human Resources Branch (HRB)** is responsible for:

a) the planning, development and implementation of personnel policies; determining, implementing and maintaining staff members' conditions of service; participating in inter-agency meetings and liaising with the Staff Association;

b) the recruitment, promotion and transfer of staff; monitoring of performance; granting of service awards; staff training and career development; and staff counselling;

c) establishment matters; job classification; surveys of cost of living; preparation of studies and working papers for Council or various committees or working groups; and

d) staff welfare (pension, insurance and medical coverage).

4.1   The **Recruitment, Establishment and Studies Section (REC/EST)** is responsible for:

a) the recruitment and placement of regular, temporary and conference staff, involving the advertisement of vacancies, the review of applications, the conduct or arrangement of interviews and tests, and the maintenance of an employment roster;

b) the provision of Secretariat services to Appointment and Promotion Boards;

c) the administration of the Establishment, including number, type, grading and funding of posts;

d) the forecast of staffing requirements, analysis of workforce, development of competency and skills profiles and long-term planning;

e) the analysis of working methods and organizational structure with a view to achieving optimum effectiveness;

f) the implementation of classification standards for Professional and Higher Categories and General Service posts;

g) the conduct of surveys and studies related to conditions of employment and personnel policies;

h) the issuance and amendment of Staff Regulations, Staff Rules, Personnel Instructions, Structure of the ICAO Secretariat and Functions Booklet; and

   i)   the preparation of Council Working Papers on conditions of employment, personnel policy, and recruitment matters, including, *inter alia,* the implementation of Equitable Geographical Representation (EGR) and gender issues.

4.2   The **Staff Services Section (SER)** is responsible for:

   a)   the administration of staff from the time they are appointed until they are separated, such as obtaining medical clearance; determining the salary and benefits; preparing the letter of appointment, authorizing payment of emoluments; obtaining release from contracting states; providing diplomatic and official acceptances and United Nations Laissez-Passers; providing letters of reference, etc.;

   b)   the application of and general interpretation of the provisions of the ICAO Service Code, Staff Rules, Personnel Instructions and other directives relating to staff salaries, allowances, benefits and other conditions of service;

   c)   the briefing of new staff, providing clarification on entitlements, staff counselling, staff training and career development;

   d)   the maintenance of personnel files, personnel database and the production of a variety of reports and statistics;

   e)   the monitoring of employee performance and the administration of Service Awards; and

   f)   the implementation and maintenance of all entitlements, grants and benefits: leave, travel, removal, dependency allowance, mobility/hardship allowance, rental subsidy, salary increment, language allowance, etc.

4.2.1   The **Social Security and Pension Unit (SSP)** is responsible for:

   a)   the administration of staff benefits with respect to staff enrolment in the United Nations Joint Staff Pension Fund, all insurances, including after-service coverage;

   b)   the application of procedure for review of disability benefits and compensation claims;

   c)   the interpretation of the provisions of the Regulations, Rules and Pension Adjustment System of the United Nations Joint Staff Pension Fund and the provision of advice to staff on pension entitlements and benefits, insurance and after-service benefits;

   d)   the ongoing liaison with the ICAO Medical Consultant on staff health matters and with the Quebec Government on matters dealing with Medicare; and

   e)   the ongoing liaison with local insurance companies with regard to renewal of group insurance plans and the Employee Assistance Programme.

THE LANGUAGE AND PUBLICATIONS BRANCH

5.   At its inception, ICAO had three working languages: English, French and Spanish. A fourth language, Russian, was added in 1972, following a decision made at the 18th Session of the Assembly in 1971. At its 21st Session, in 1974, the Assembly approved Arabic as a working language of ICAO and, at its

22nd Session, in 1977, Chinese was approved as a working language. Since then, the use of Arabic and Chinese has progressively expanded within ICAO.

5.1 The **Language and Publications Branch (LPB)**, one of the two branches of the Bureau of Administration and Services, is responsible for providing language services for the governing Bodies of the Organization and meetings, and for the publications programme, including editing and printing. The language and publication activities embrace translation, interpretation, editing, typesetting, proofreading, graphics work, printing and support services (terminology and document control). LPB comprises the following sections and unit:

– the Arabic Section (AR)
– the Chinese Section (CH)
– the English and Publications Section (EPS)
– the French Section (FR)
– the Russian Section (RU)
– the Spanish Section (SP)
– the Interpretation Section (INT)
– the Printing Section (INP)
– the Terminology, Reference and Documentation Section (TRD)
– the Document Control Unit (DOC)

Translation, Editing and Printing

5.2 Most of the documentation for ICAO's activities is produced in six languages. The **Arabic, Chinese, English, French, Spanish and Russian Sections** provide translation, revision, typesetting, proofreading and editorial services in those languages to produce working papers, publications and other material, as required.

5.3 The **Printing Section** is responsible for the printing of publications, working papers and other material produced or required throughout the Secretariat.

5.4 The **Document Control Unit** controls the processing of documentation involving receiving, registering and distributing documentation requiring translation, editing, typesetting, proofreading, graphics work, printing and document distribution, as well as assigning or revising job priorities in conjunction with originating officers and in accordance with established priority classifications.

Interpretation

5.5 ICAO maintains a number of interpreters on the regular staff of the Branch. The Interpretation Section proper is responsible for the provision of interpretation services in English, French, Spanish and Russian. The interpretation from and into Arabic and Chinese is provided by the Arabic and Chinese sections respectively.

Terminology, Reference and Documentation

5.6 The primary objective of the Terminology, Reference and Documentation Section is to provide translators and interpreters with indispensable working tools, in the form of multilingual references and terminological information, for which purpose an electronic multilingual data base is available on-line, and the multilingual vocabulary of terms used in connexion with international civil aviation is published and kept up to date.

Annual Output

5.7   In 2006, for example, it is estimated that the Language and Publications Branch will translate approximately 25 500 pages of new material into Arabic, Chinese, English, French, Russian and Spanish and produce more than 50 titles of saleable publications. The Printing Section is expected to print about 65 million page impressions.

CONFERENCE AND OFFICE SERVICES SECTION

6.   The **Conference and Office Services Section (COS)** provides for coordination, management and support of the meeting programme and its budget; the management and coordination of conference facilities and telephone systems; and office services, inventory control, and building administration and services operations, including lease management and parking administration.

6.1   The **Meeting Room Service** includes the operation and maintenance of the simultaneous interpretation equipment, recording equipment and other conference room equipment, such as projectors, screens, etc., and the reparation of seating arrangements at larger meetings. The Conference Centre comprises twelve conference rooms.

6.2   **Office Services** include:

   a)   physical accommodation of offices, warehouse space, etc.;
   b)   furniture, office equipment and machines;
   c)   stationery and supplies;
   d)   telephone service;
   e)   official car and chauffeur; and
   f)   receiving.

6.3   The **Maintenance and Construction Service** consists of a carpenter shop and an office machine maintenance and repair shop.

6.4   **Meeting Programme Management** consists of:

   a)   preparation of draft annual and triennial meeting schedules and cost estimates for all meetings at Headquarters and away from Headquarters and, in the latter case, liaison with the host State outlining the financial implications and expected contribution from their administration for any given external meeting;

   b)   preparation of Council Working Papers on the annual and triennial Meeting Programmes; on the financial and administrative arrangements for Regional Air Navigation meetings and other large ICAO meetings; preparation of State Letters transmitting the Council Decisions regarding the administrative arrangements for meetings; preparation of Memoranda of Understanding between ICAO and the Host State for all large ICAO meetings held outside Headquarters, outlining all logistical, administrative and support services needed for the meeting;

   c)   preparation of a booklet providing pertinent information for delegates for all major meetings; updating the list of hotels sent with State Letters to Contracting States;

   d)   maintaining and controlling all expenditures related to the Meeting Programme at Headquarters and in all Regional offices, monitoring obligations and expenditures, and ensuring that the

different approved allotments are not overspent; preparing mid-year reviews, applying the necessary adjustments to the meeting programme in a cost-effective manner;

e) providing guidance and advice to the Regional Offices and different Bureaux regarding the planning of their meetings and the related cost estimates; and

f) advising and coordinating with secretaries of meetings and Host States on the preparation and conduct of meetings, pre- and post-meeting activities for all logistical and administrative activities of conference management, including equipment and communication requirements, support staff, conference and office room configuration, technical requirements and associated aspects.

6.5 The **Conference Centre Rental Operations** consist of:

a) providing and coordinating conference space and services to external agencies and organizations, in particular the United Nations, Federal and Provincial Governments, the City of Montreal and other specific bodies;

b) preparing the rental agreements and coordinating the availability of meeting rooms for external meetings. Preparing cost estimates and invoicing for all external meetings, including the preparation of a temporary staffing list for hiring; and

c) monitoring and maintaining miscellaneous revenue income reports from income gained from the Conference Centre rentals and organizing and coordinating all administrative, logistical and technical support activities for external meetings with the meeting organizers.

6.6 The **Conference and Meetings Technical Service Support** consists of:

a) providing conference services, coordination and logistical support for all meetings held at Headquarters and elsewhere, including, in the latter case, liaison with the Host State; and

b) carrying out the operation and technical maintenance of interpretation and translation equipment and facilities, including sound control, recordings, managing of all audio-visual conference system equipment, and maintaining and operating the Conference Centre's audio monitoring telephone network for meetings, setting up of conference rooms, provision of equipment and supplies.

6.7 The **Telephone System Management** consists of:

a) providing technical and administrative support for the management of the ICAO telephone and fax systems, and installation, maintenance and repair of telephone lines; and

b) preparation and formatting of all telephone invoices and technical and cost evaluations of long distance service providers.

6.8 **Office Services and Supplies** consist of:

a) providing technical support and evaluations and selecting and purchasing office equipment (copiers, fax machines, etc.), supplies and services for the Secretariat; and

b) managing and controlling the issue of stationery, materials, furniture, equipment and supplies.

6.9   The **Inventory Control Management** consists of managing and maintaining records of all inventory transactions for both Headquarters and Regional Offices.

6.10   The **Building Services Operations** consist of:

a)   providing full liaison with the Host Government building management for all building, site and rental related matters. Providing and verifying the yearly rental and operation and maintenance costs of the Headquarters premises. Preparation and administration of all leases for rental of space by delegations. Management and control of ICAO parking. Administration and liaison on all building services aspects of the Headquarters Agreement;

b)   preparing, in consultation with the Host Government, all budgetary estimates related to rent and operations, and maintenance of the premises. Coordinating HQ issues with the Host Government agencies and managing the HQ access and card systems; and

c)   providing carpentry and technical services to the Secretariat and National Delegations for maintenance and modification to office areas, including computer-assisted drafting plans, locksmithing, and furniture repairs and upgrades.

REGISTRY, DISTRIBUTION AND SALES SECTION

7.   The **Registry, Distribution and Sales Section (RDS)** is responsible for the operation of a registry service, the internal and external distribution of documents, the sales of documents and audio-visual training aids and a shipping and mail service. The responsibilities of these functions are shared among the following five Units of the Section:

7.1   The **Registry and Telecommunications Unit** provides a central registry service involving the classification and processing of all inward correspondence, the creation, custody and maintenance of internal Secretariat files, the operation of a record retention programme and a building messenger service; and the telecommunication services which include the operation and control of centralized facsimile, telex and SITA networks.

7.2   The **Internal Distribution Unit** is responsible for the distribution of ICAO documentation and publications to the Secretariat and Representatives on the Council and at meetings held at Headquarters. It distributes non-saleable documentation to Contracting States and Technical Co-operation Missions and provides over-the-counter cash sales services.

7.3   The **Document Sales Unit** operates a computerized distribution and sales service for saleable publications and training aids. This involves the processing of orders, the maintenance of address and customer demand files, inventory management and the issuing of invoices.

7.4   The **External Distribution Unit** is responsible for the storage of publications and training aids, the preparation of customer orders, the packaging, weighing, addressing and dispatching of mail, documentation, publications and all other ICAO shipments. It is responsible for diplomatic pouch services to the ICAO Regional Offices.

7.4.1   The Section is also responsible for providing **State Letter Office** services.

INFORMATION AND COMMUNICATION TECHNOLOGY SECTION

8.   The **Information and Communication Technology Section (ICT)** is responsible for:

a)   the planning and direction of information technology (IT) activities of the Organization at Headquarters;

b)   keeping abreast of new technologies which could be of use to ICAO;

c)   the preparation and circulation of instructions and guidelines regarding computer equipment usage;

d)   security and procedural implementation relative to computers;

e)   presentation of information technology plans related to infrastructure and networks; and

f)   ensuring overall integration of systems of the Organization.

8.1   ICT performs several activities for Headquarters and, to some extent, for the Regional Offices. These are as follows:

8.1.1   **ICT Architecture** activities include the responsibility for the design, implementation and support of the ICT infrastructure. Several services are provided as follows: research of emerging technologies and preparation of costed proposals for their introduction at ICAO; planning and implementation of a fully operational local area network at Headquarters, of central servers, of electronic mail (e-mail), of telecommunication means and Internet facilities, including systems programming and establishment of operating systems and of large scale software; planning, monitoring and integration of data and text processing techniques with electronic telecommunications and document publication tools; design and implementation of software security features for servers, networks and workstations. Activities also include provision of advice to the Regional Office about their networking needs and for the implementation of systems to integrate them into the rest of the Organization.

8.1.2   **Technical Support** activities include first- and second-level services of support to the computer users. They cover the following: advising users on configurations and acquisition of microcomputer hardware; troubleshooting and resolving technical problems on servers, telecommunications, networks and desktop equipment; administration of mid-range computers and servers, including their databases; and network administration, including registration of computer users with their access rights.

8.1.3   **Training** activities include comprehensive training in new technologies and standard products used on microcomputers. They also cover on-site and direct support to end-users along with the identification of training needs and the preparation/conduct of training sessions addressing special needs.

8.1.4   **Computer Operations** include the operation of the computer centre; the enforcement of proper security and the creation of safety copies consisting of off-site disk, CD-ROM or tape back-up for all computer systems at Headquarters; the maintenance and control of the hardware and software microcomputer assets.

8.1.5   **Systems Development** activities include the planning and determination of feasibility and cost/benefits relating to the introduction of systems developed either in-house or outsourced; the design of systems specifications and associated new programmes in conjunction with system users; the coding, testing and correction of appropriate software for new systems; the adoption of standards for use of computerized

databases; the maintenance of systems software. These activities are provided to Bureaux or Offices which do not have development teams reporting directly to them.

8.2   ICT also provides services to National Delegations located in the ICAO building for their accessing the ICAO-NET (Web site restricted to the Contracting States and Delegations), and for Internet facilities (including electronic mail). Training on the use of the ICAO-NET, electronic mail, and the Internet in general is provided by ICT upon connection to ICAO LAN. Support or assistance is not provided by ICT to Delegations for any computer needs unrelated to those accesses.

8.3   **Information and Communication Technology Management Committee**

8.3.1   The Information and Communication Technology Management Committee (ICT/MC) was established under the authority of the Secretary General to respond to the needs to ensure coherent, coordinated and proper usage of ICT at ICAO. This Committee shall promote general participation, cooperation and consensus among staff from the various Bureaus/Offices, and will assist the Secretary General in the utilization of ICT in ICAO operations. The ICT/MC has the role of reviewing, coordinating and recommending all major ICT projects and initiatives at ICAO, and shall establish overall guidelines and policy direction for the respective Bureaus and Offices, while maintaining the necessary level of decentralization for the implementation and management of projects at the departmental level. This ICT governance will also ensure that the central infrastructure support and services are aligned with the needs and objectives of the Organization and the various departments.

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Finance Branch

THE FINANCIAL ADMINISTRATION OF ICAO

(2006)

I. **INTRODUCTION**

    1.   ICAO and the United Nations

    2.   Framework of the Financing of ICAO
        a)   Regular Programme
        b)   Technical Co-operation activities
        c)   Joint Financing

II. **ASSESSED CONTRIBUTIONS ON THE CONTRACTING STATES**

    1.   Scale of Assessment

    2.   Determination of scales (principles)
        a)   capacity to pay factor (national income)
        b)   interest and importance in civil aviation
        c)   minimum/maximum assessments

    3.   Review of scales by the Administrative Commission and
            its Contributions Working Group

    4.   Approval of scales by the Assembly

    5.   Approval of new States by the Assembly

    6.   Arrears, settlement, suspension of voting power.

III. **BUDGET AND WORK PROGRAMME**

    1.   Structure of the Budget

    2.   Approval Process
        a)   Secretariat estimates and review by Finance Branch for preparation of Secretary General's proposals to the Council
        b)   review by Council of Secretary General's proposals, examination by Finance Committee and submission of Council's proposals to the Assembly
        c)   review by the Administrative Commission and its Budget Working Group
        d)   Assembly approval of budget and work programme.

IV. **FINANCIAL CONTROL**

    1.   Administration of the Budget
        a)   Responsibility of the Secretary General under Articles XI and XII of the Financial Regulations

    2.   Review of accounts by Internal Audit and External Auditor

    3.   Reports to the Finance Committee, Council and Assembly

    4.   Financial Statements and Report of the External Auditor

Air Transport Bureau

THE AIR TRANSPORT BUREAU AND ITS WORK PROGRAMME

References

Doc 7300, *Convention on International Civil Aviation, signed at Chicago on 7 December 1944 and amended by the ICAO Assembly*

Doc 9842, *Programme Budget of the Organization 2005-2006-2007*

Doc 9848, *Assembly Resolutions in Force* (as of 8 October 2004)

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1. **AIMS AND PRINCIPAL TASKS OF THE BUREAU**

   The air transport activities of the Organization stem from Article 44 of the *Convention on International Civil Aviation*, which establishes the aims and objectives of the Organization; Articles 54 and 55 of the *Convention*, which define the mandatory and permissive functions of the Council; Article 15 which defines policy on airport and air navigation charges; Articles 22 through 24 which provide authority for work on the facilitation of international air transport; Articles 37, 38 and 90 which provide the basis for the development and notification of standards and procedures in the fields of facilitation and aviation security; Article 67 regarding the filing of statistical and other reports; and Articles 68 through 76 (Chapter XV) regarding the provision and financing of air navigation facilities and services.

2. **STRUCTURE OF THE BUREAU**

   The Director of the Bureau handles overall air transport policy, international relations and administration of the Bureau, and supervises the Aviation Security Audit Section.

   The Deputy Director heads three sections concerned with the economic aspects of air transport and a unit dealing with aviation and the environment

   > Economic Policy and Infrastructure Management Section
   > Economic Analyses and Databases Section
   > Joint Financing Section
   > Environment Unit

   The Chief, Aviation Security and Facilitation Branch, who reports to the Director, heads two sections dealing with all aspects of security and facilitation, excluding aviation security audits.

   > Specifications and Guidance Material Section
   > Coordinated Assistance and Development Section

3.   **WORK PROGRAMME OF THE AIR TRANSPORT BUREAU**

3.1   **General**

Relationship with Air Transport Committee, Joint Support Committee, Committee on Unlawful Interference, Economic Commission of the Assembly and International Explosives Technical Commission — the Bureau prepares documentation for the above Committees and Commission and under their guidance implements work on air transport issues.

The Bureau is guided by principles laid out in Assembly Resolutions A35-18, Consolidated statement of continuing ICAO policies in the air transport field, A35-9, Consolidated statement of continuing ICAO policies related to the safeguarding of international civil aviation against acts of unlawful interference and A35-5, Consolidated statement of continuing ICAO policies and practices related to environmental protection. It also offers guidance on air transport and aviation security work in ICAO regional offices, and liaises with regional civil aviation bodies on air transport issues.

The Bureau coordinates with other Bureaux on multi disciplinary tasks such as airport and airspace congestion, suppression of drug abuse and illicit trafficking, environmental protection, communications, navigation, surveillance/air traffic management (CNS/ATM) systems, provides assistance to the Technical Co-operation Bureau on the air transport components of their projects and assistance to other Bureaux on air transport questions related to air navigation activities and legal work of the Organization.

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ECONOMIC POLICY AND INFRASTRUCTURE
MANAGEMENT (EPM) SECTION

PROGRAMME: ECONOMIC POLICY

References

Economic Policy Programme (ECP) Website: www.icao.int/icao/en/atb/ecp/index.html
(general information about the Programme, and downloadable documents)

Doc 8632, *ICAO's Policies on Taxation in the Field of International Air Transport*

Doc 9587, *Policy and Guidance Material on the Economic Regulation of International
Air Transport* (Second Edition - 1999)

Doc 9626, *Manual on the Regulation of International Air Transport* (Second
Edition 2004)

State letter SC 5/6-04/23 dated 30 April 2004, *Database of the World's Air Services
Agreements* (WASA. Doc 9511-2005 Edition) and *ICAO Template Air Services
Agreements* (TASAs)

State letter EC 2/93, AN 11/41-05/83 dated 12 August 2005, *Safety and security aspects
of economic liberalization and relevant State responsibilities* (also available from
the ECP Website)

A Study of an essential air service and tourism development route scheme

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Agenda:

1. Introduction
    – ICAO's role and activity in the field of economic regulation
    – Its work and products (policy guidance, analysis and information)

2. Policy framework and guidance on air transport regulatory liberalization
    – Outcome of the fifth Worldwide Air Transport Conference (ATConf/5) and follow-up work
    – Study on safety and security aspect of economic liberalization
    – Study of an essential air service and tourism development route scheme

3. Trade in Services
    – General Agreement on Trade in Services (GATS) and World Trade Organization (WTO)
    – Reviews of the Air Transport Annex and ICAO's position

4. ICAO's Policies on Taxation of International Air Transport

5. Policy analysis and information (Database on air transport agreements, Liberalization case
    studies, States' policies on airline ownership and control, and other databases)

6. Monitoring work and dissemination of policy guidance and information
    – Regional workshops/seminars, and global symposium on liberalization (Dubai 2006)

PROGRAMME: AIRPORT AND ROUTE FACILITY MANAGEMENT

References

      The following is a list of the more important documentation relevant to the lecture to be given in this subject area. In addition to Article 15 of the Chicago Convention (Doc 7300), the basic document is Doc 9082/7. Participants are recommended to study this document in advance since the major part of the lecture will relate to its content. The other documentation listed will be of interest as general reference material.

Basic documentation:

Doc 7300 (Article 15), *Convention on International Civil Aviation**

Doc 9082/7, *ICAO's Policies on Charges for Airports and Air Navigation Services***

Other reference documentation

Doc 9562/2, *Airport Economics Manual***

Doc 9161/4, *Manual on Air Navigation Services Economics***

Doc 9660, *Report on Financial and Related Organizational and Managerial Aspects of Global Navigation Satellite Systems (GNSS) Provision and Operation*

Doc 7100* (2005), *Tariffs for Airport and Air Navigation Services - 2005 Edition*

Doc 9764 (ANSConf 2000), *Report of the Conference on the Economics of Airports and Air Navigation Services***

Circular 284 - AT/120, *Privatization in the Provision of Airports and Air Navigation Services**

Study on the financial situation of airports and air navigation services (January 2006)**

*   Document available on the ICAONET.

**   Document available on the ICAO Website

Lecture scope

      To discuss *ICAO's Policies on Charges for Airports and Air Navigation Services* in Doc 9082/7, the guidance material in the *Airport Economics Manual* (Doc 9562) and the *Manual on Air Navigation Services Economics (*Doc 9161) as well as the more important general tasks of the Airport and Route Facility Management Programme. Information about the Airport and Route Facility Management Programme is available on its website: http://www.icao.int/icao/en/atb/arfm/index.html.

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JOINT FINANCING (JF) SECTION

> **References**
>
> Doc 9585-JS/681, *Agreement on the Joint Financing of Certain Air Navigation Services in Greenland (1956) as amended by the Montreal Protocol of 1982 (incl. annexes 18th edition and revisions thereto)*
>
> Doc 9586-JS/682, *Agreement on the Joint Financing of Certain Air Navigation Services in Iceland (1956) as amended by the Montreal Protocol of 1982 (incl. annexes 18th edition and revisions thereto)*
>
> *Arrangement on the Joint Financing of a North Atlantic Height Monitoring System (HMS)*
>
> *Agreement on the Sharing of Costs of the Satellite Distribution System for Information relating to Air Navigation (SADIS)*

Lecture Scope:

Basis of Joint Financing

Article 28 and Chapter XV of the Chicago Convention: Obligations to provide air navigation services, Financing of air navigation facilities and services;

Assembly Resolutions: A1-65 (General Policy), A14-37 (Increased participation by "User States" in the Joint Financing arrangements) and A16-10 (Economic, financial and joint support aspects of implementation).

Presentation of the three types of Joint Financing arrangements administered by ICAO:

DEN/ICE Agreements;

HMS Arrangement;

SADIS Agreement.

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ECONOMIC ANALYSES AND DATABASES (EAD) SECTION

PROGRAMME: STATISTICS

Presentation

1. ICAO Statistics Programme

2. Some definitions used in civil aviation statistics

3. ICAO's Integrated Statistics Database (ISDB)

Participants wishing to familiarize themselves with the Aviation Statistics database may do so by following the procedure outlined below:

Open your web browser and enter the ICAO secure site address:

<http://icaosec.icao.int>

The home page will show the ICAO logo along with two options: **New User** (on the lower left of the logo) and **Login** (on the lower right of the logo).

I am a new user.

Click on **New User** and a window will open asking you to identify the group you want to join; type **STA** and press enter. After that a form will open requesting some personal information. Please complete the form and send by pressing the submit button at the bottom of the page. An e-mail will then be automatically sent to the manager of the group. Within one working day you should receive an e-mail with a temporary password to access the website. We recommend that you change your password once you log in.

I already have username/password.

Log in and a window will open showing the groups to which you belong. If you do not belong to the group STA, then click on **Group Membership**; a form will open requesting some information. Please complete the form and send by pressing the submit button at the bottom of the page. An e-mail will then be automatically sent to the manager of the group. Within one working day you should receive an e-mail confirming that access to the STA group has been granted.

Should you experience any problems with the above-mentioned procedures, please contact the EAD Section of ICAO by e-mail at sta@icao.int, telephone at (514) 954-6131 or by facsimile at (514) 954-6744.

PROGRAMME: FORECASTING AND ECONOMIC PLANNING

<table>
<tr><td align="center">**References**</td></tr>
<tr><td>Doc 8991, *Manual on Air Traffic Forecasting*</td></tr>
<tr><td>Circular 308, *Airline Traffic Forecasts and Financial Trends – 2005 to 2007*</td></tr>
<tr><td>Circular 304, *Outlook for Air Transport to the Year 2015*</td></tr>
<tr><td>Circular 257, *Economics of Satellite-based Air Navigation Services*</td></tr>
<tr><td>Circular 292, *Economic Contribution of Civil Aviation*</td></tr>
<tr><td>Circular 306, *Regional Differences in International Airline Operating Economics, 2000-2001*</td></tr>
</table>

Major Programme Activities

1. **Forecasting**. ICAO's forecasting activities are mandated by Assembly Resolution A35-18, Appendix C.

1.1 Global long-range forecasts of airline traffic, including aircraft movements, are prepared and published every two or three years (see Circular 304).

1.2 Global and regional medium-term (three-year horizon) forecasts of economic performance and airline traffic as well as finances are prepared and published annually.

1.3 Regional Traffic Forecasting Groups (TFGs)

Today TFGs exist in five regions. The North Atlantic TFG goes back to 1965, while the Asia/Pacific Area TFG was established in 1991. Since Council decision 149/8 on strategy for traffic forecasting activity was adopted in 1996, TFGs have been established also in the Africa/Indian Ocean, the Latin America and Caribbean and the Middle East regions. TFG's provide air traffic forecasts and other planning parameters to ICAO Planning and Implementation Regional Groups (PIRGs) and ALLPIRG Meetings to assist in the planning of air navigation facilities and services.

2. **Research and guidance**

2.1 Economic aspects of planning and implementation of CNS/ATM systems

Guidelines were developed for cost/benefit analysis for communication, navigation, surveillance/air traffic management (CNS/ATM) systems, including prototype spreadsheets (see Circular 257). Cost/benefit studies assist States in the planning and cost-effective implementation of CNS/ATM systems, which contribute substantially to alleviating airspace congestion and improve the overall efficiency of air traffic management. Updated guidance material (to be available in the latter part of 2006) includes business cases which should enable States to present more comprehensive applications to obtain the necessary investment.

2.2   Economic contribution of civil aviation

Methodological guidelines have been developed to assist States in assessing the economic contribution of civil aviation (ECCA) as a business sector within a given regional/local or national economy in terms of output and employment of its major components, namely aerospace manufacturing, airlines, airports, business and governmental services. Based on input/output analysis and the underlying national/regional accounting framework, the interdependence between producers and consumers of goods and services associated with air transport is measurable along the production chain. Also a global estimate of civil aviation's direct economic contribution and multiplier effects is available (see Circular 292).

2.3   Regional forecasting and economic planning workshops

Workshops are convened at a rate of one or two per year in the various regions for government officials to receive advice on forecasting and economic planning techniques and to exchange views on related issues.

2.4   Economic aspects of security issues

Work has been initiated on the economic issues contained in the AVSEC Plan of Action; namely, assessment of financing requirements to remedy shortcomings and deficiencies; cost-effectiveness analyses of available measures to correct those shortcomings and deficiencies and development of business cases, as appropriate (based on the findings of security audits) and economic implications of new security measures.

3.   **Analysis of airline operating economics**

3.1   Assembly Resolution A35-18, Appendix G, forms the basis for ICAO to undertake studies of regional differences in the levels of international airline revenues and costs (see Circular 306).

3.2   The results of these studies are also used by the Prorate Agency to prorate passenger revenues from interline journeys.

3.3   Under an arrangement with the Universal Postal Union, ICAO analyses and provides data to calculate the basic air mail conveyance rate according to Article 53 of the Universal Postal Convention.

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ENVIRONMENTAL PROTECTION (ENV) UNIT

Reference
Assembly Resolutions in Force (Doc 9848) - A35-5

1. **Environmental problems associated with civil aviation**

    – Aircraft noise
    – Aircraft engine emissions:
        – impact on air quality near airports
        – impact on upper atmosphere (primarily climate change)
    – Local problems at airports

2. **Multi disciplinary approach**

    – Technical /Operational aspects (Certification; Operational procedures; Land-use planning and management)
    – Economic/statistical
    – Legal aspects
    – UN coordination aspects
    – External relations aspects

3. **Economic, statistical and other inputs to the Committee on Aviation Environmental Protection (CAEP)**

    – Database development and forecasting
    – Emission inventories
    – Analysis of economic implications of possible solutions to environmental problems
    – Market-based measures regarding aircraft engine emissions, such as voluntary measures, levies (charges or taxes) and emissions trading

4. **Coordination with the UN System**

    – Liaison with scientific assessment processes (Intergovernmental Panel on Climate Change, Montreal Protocol on Substances that Deplete the Ozone Layer)
    – Liaison with UN policy-making bodies (in particular, Conference of the Parties to the United Nations Framework Convention on Climate Change)

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AVIATION SECURITY AUDIT (ASA) SECTION

References
Doc 9807 (Restricted), *Security Audit Reference Manual (SARM)* Annex 17 - *Security*

Work programme responsibilities

Audit implementation

– conduct USAP audits of all Contracting States

– prepare confidential audit mission reports

– analyse the adequacy of State-submitted corrective action plans

Analysis and quality assurance

– identify and analyse aviation security needs and deficiencies on a State, regional and global level and provide a quality assurance function on the activities of the programme

Audit follow-up visits

– oversee implementation of a follow-up visit programme in order to validate the effective implementation of State corrective action plans

Auditor training and certification

– conduct initial and recurrent USAP auditor training and certification of team members and team leaders

Maintenance of audit documentation

– develop and maintain audit-related documentation

Support for deliberative bodies

– support work of ICAO bodies in relation to the universal security audit programme (USAP) as required

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**SPECIFICATIONS AND GUIDANCE MATERIAL (SGM)
AND
COORDINATED ASSISTANCE AND DEVELOPMENT (CAD) SECTIONS**

PROGRAMME: FACILITATION

References

Convention on International Civil Aviation, Doc 7300/8

Annex 9 – *Facilitation*, Twelfth Edition (2005)

Doc 9848 *Assembly Resolutions in Force* (as of 8 October 2004);

Doc 9303, *Machine Readable Travel Documents*
     - Doc 9303, Part 1 - Machine Readable Passports
     - Doc 9303, Part 2 - Machine Readable Visas
     - Doc 9303, Part 3 - Size 1 and Size 2 Machine Readable Official Travel Documents

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A.   Introduction – what the FAL programme is about

B.   FAL programme objectives

     1.   Manage Annex 9 — *Facilitation*

          a) Annex 9 — What's new?

          b) Annex 9 — What is next?

     2.   Publish specifications for Machine Readable Travel Documents

          a) e-Passports and biometrics – the state of the Standards

          b) Work of the TAG/MRTD – what is coming up

     3.   Universal implementation of machine readable passports

C.   Issues on the current Agenda

D.   ICAO interaction with member States – opportunities and accomplishments

     1.   FAL Division and FAL Panel

     2.   Study Groups

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PROGRAMME: AVIATION SECURITY

<div style="border: 1px solid black;">

References:

Annex 17 — *Security* (Eighth Edition)

ICAO *Security Manual for Safeguarding Civil Aviation Against Acts of Unlawful Interference* (Doc 8973/6 , Restricted) — Not for distribution

State letter AS 8/1.5-05/54 Confidential dated 28 October 2005

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1.   Overview of Civil Aviation Security

2.   The ICAO Aviation Security Programme — Assembly Resolution A35-9

3.   Annex 17

4.   The ICAO Security Manual

5.   The ICAO *Aviation Security Plan of Action* — Assembly Resolution A35-10

6.   Regional activities

7.   ICAO assistance programmes for aviation security

8.   The ICAO Training Programme for Aviation Security

Technical Co-operation Bureau

ICAO FAMILIARIZATION COURSE

TECHNICAL CO-OPERATION BUREAU

SUMMARY OF LECTURES

ICAO'S TECHNICAL CO-OPERATION PROGRAMME

1.   BACKGROUND

The technical cooperation activities of ICAO and the functions of the Technical Co-operation Bureau derive from a series of resolutions adopted by the Economic and Social Council of the United Nations (ECOSOC), the UN General Assembly, the ICAO Assembly and the ICAO Council. The constitutional basis for ICAO's participation in technical cooperation activities rests essentially upon the following decisions: The ICAO Council's decision at its Eighth Session in December 1949 to endorse UN ECOSOC Resolution 222 (IX), thereby approving ICAO's participation in the Expanded Programme of Technical Assistance (EPTA) for economic development; the 1950 ICAO Assembly's Resolution A4-20 ratifying the aforementioned decision of the Council; and the 1975 standard basic agreement between ICAO and UNDP concerning UNDP technical cooperation activities with Governments.

Technical Co-operation is covered under Article IX of the ICAO Financial Regulations.

2.   EXECUTION OF TECHNICAL CO-OPERATION

The Technical Co-operation Programme is conducted under the broad policy guidance of the ICAO Assembly and of the Council. Subject to general guidance by the Secretary General, and his decision on matters of significant magnitude, the Technical Co-operation Programme is executed under delegated authority by the Technical Co-operation Bureau, under its Director.

3.   FUNDING AND SIZE OF THE TECHNICAL CO-OPERATION PROGRAMME

It has been recognized by previous Assembly Sessions that ICAO does not provide funding for its Technical Co-operation Programme. The Programme is funded by extra budgetary resources, such as those provided by the UNDP and through Trust Funds provided by governments and other entities. It cannot be determined with a great degree of precision until such time as the governments of recipient countries and funding sources have decided, after due consideration of their priorities, on the amounts to be allocated to civil aviation projects. In view of this, it is difficult to determine in advance the size of the Programme.

4.   ADMINISTRATIVE AND OPERATION SERVICES COSTS (AOSC) FUND

The administration and operation of the Organization's programme of technical co-operation is administered through an Administrative and Operational Services Cost (AOSC) Fund, which is utilized to meet the full cost of such administration, operation and support of the Organization's programmes of technical cooperation.

5.   MAIN OBJECTIVES

a)   Strengthening Civil Aviation Institutions

- Administrative organization and establishment of Civil Aviation Authority
- Civil Aviation regulatory framework
- Economic and financial studies
- Support for the implementation of ICAO standards
- Development of civil aviation/airport master plans

b)   Technology Transfer and Human Resource Development

- Services of international consultants and instructors
- Establishment and development of civil aviation training centres (CATCs)
- Training locally and abroad
- Training by equipment suppliers
- TRAINAIR

c)   Infrastructure and Services

- Aerodromes
- Air navigation systems and equipment
- Security systems and equipment
- Airport management systems
- Maintenance programmes
- Organization
- Update

d)   Promotion of ICAO SARPs

- Promotion of uniform implementation of ICAO's standards and recommended practices (SARPs), policies and procedures
- Projects implemented by TCB in compliance with standards developed by ICAO
- SARPs-compliant technology guaranteed

e)   Provision for Remedial Action

- Follow-up to USOAP and USAP audits
- Meet both immediate and long-term requirements for training, equipment or expertise
- Development of corrective action plans
- Preparation of audit-related project documents
- Implementation of appropriate remedial action
- Compliance with ICAO SARPs

6.   COOPERATION PROGRAMMES AVAILABLE TO STATES

ICAO cooperation may be provided to States through the following programmes:

a) Cooperation through the United Nations Development Programme (UNDP).
b) Cooperation through various Trust Fund arrangements (including Associate Experts).

c) Cooperation in purchasing and contract services through the Civil Aviation Purchasing Service (CAPS).

d) Cooperation through Management Service Agreements (MSA).

In addition, cooperation is available through bilateral agreements with other States.

7. UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

a) Historical

The Expanded Programme of Technical Assistance (EPTA) was established by the United Nations Economic and Social Council in 1949. Assistance through this programme was supplemented by the creation in 1958 of the United Nations Special Fund (SF) to undertake larger-scale, longer-term projects. EPTA and SF were merged into the United Nations Development Programme in 1966, although certain distinctions continued to be made between the TA and SF components of the UNDP until 1 January 1972.

b) Funding of Programmes

The UNDP is financed by voluntary contributions from States. In 2000, Governments agreed on a target contribution to UNDP=s regular resources of US$ 1.1 billion. About $700 million of the UNDP resources are allocated each year to country (80 per cent), inter-country (12 per cent), and other (8 per cent) programmes. The UNDP Executive Board establishes a target for resource assignment from UNDP=s regular resources on the basis of a three-year costing resource planning framework. These allocations are made in one or more tranches; the first is based on the overall approved Country Co-operation Framework (CCF), and the subsequent ones on the country=s capacity for programme management and absorption.

For inter-country programming, the Executive Board has assigned approval responsibility to the four UNDP Regional Bureaux. In all cases, there must be evidence of ownership by the countries that constitute the regional entity, and the regional activity should have been included in each country=s own approved Country Cooperation Frameworks (CCF).

c) Current Country Programming Procedures

The programming exercise covers a three-year rolling period and begins with the preparation by UNDP Resident Representatives (RR) of Preliminary Programming Notes (PPN). This document is then formulated into a Country Co-operation Framework (CCF) by the national planning authority and the Resident Representative. The CCF is then endorsed by the UNDP Executive Board, after which the appropriate regular resources are allocated. The country then decides the modalities for the execution of the programmes included in the CCF. It is at liberty to use UN agencies, non-governmental organizations, national institutions or the private sector. Each approved CCF is subject to yearly revision.

It should be noted that the national planning authority is the key agency in the formulation of the CCF. For instance, a request for a project from the Civil Aviation Authority (CAA) can only be considered by the UNDP if it has been included in the overall national programme, which is the basis of the CCF. Therefore, it is important for the CAA to be closely involved with the planning authority in the preparation of the CCF.

d)   **Current Inter-country Programming Procedures**

An inter-country programme must be supported by two or more countries. Each country's requests for such projects are referred to the UNDP's Regional Bureaux for preliminary screening. Governments should have assigned priorities for these projects in their CCFs. Based upon these and the funds available in the inter-country regular resources allocation, the Regional Bureaux then finalize the programmes. Implementation by the selected entities of the approved programmes then begins.

Approved inter-country programmes are also subject to yearly revisions.

e)   **Formulation and Approval of Individual Projects**

After approval of country or inter-country programmes, the government, the Resident Representative and the executing entities prepare a detailed formulation of the individual projects. In the case of large-scale projects, UNDP Headquarters is also involved. The resulting project document, when approved by the Resident Representative, serves as the basis for implementation and automatically constitutes the allocation of funds for its implementation.

f)   **Responsibilities of the Executing Agents**

The executing agent has responsibility for the project or programme and can either implement it fully or delegate some or all the implementation to other entities.

g)   **Responsibilities of the Assisted Government**

As the owner of the programme, the government has overall responsibility for the delivery and provision of other inputs of the project. The other inputs may include the provision of counterpart personnel for training by the international experts, the provision of administrative personnel, office accommodation, etc., and other administrative and ancillary services.

h)   **UNDP Funding of ICAO Technical Co-operation Activities**

UNDP core funding of ICAO technical cooperation activities has steadily decreased to represent less than 3 per cent of the total Technical Cooperation Programme. Assembly Resolution A35-20 requested UNDP to give more priority to the development of the air transport subsector of developing countries.

8.   ICAO COOPERATION THROUGH OTHER FUNDING ARRANGEMENTS

a)   **Trust Fund Arrangements**

Cooperation is provided to States through various Trust Fund arrangements, which are specific arrangements by which ICAO provides co-operation other than or supplementary to UNDP projects through funds made available by States themselves or through funds supplied by other sources.

Agreements and arrangements between the Governments of Denmark, Finland, France, Germany, the Kingdom of the Netherlands, Italy, Sweden and ICAO provide for junior experts (Associate Experts) whose salaries are paid by these countries, to be assigned to supplement the work of international experts in UNDP/ICAO projects at the request of the governments concerned. In addition,

an agreement is in place between ICAO and the Government of Spain to provide ICAO with professionals to work at ICAO HQs and in ICAO Regional Offices in Lima and Mexico.

In 1970, the United Nations established a programme of volunteers whose services were to be made available by providing states without (or with minimum) cost to the executing agencies; in general, their function would be similar to that of the Associate Experts described above.

b) **Civil Aviation Purchasing Service (CAPS)**

CAPS is a facility provided by ICAO to developing countries to purchase high value equipment systems, or to contract for technical services, required for civil aviation, making use of the comprehensive purchasing and contracting system already developed within ICAO for technical cooperation purposes. Many countries do not yet have adequate machinery for dealing with all aspects of equipment procurement such as preparing specifications, tendering, contracting and subsequent follow-up procedures with selected manufacturers. The administrative charge applied by ICAO is on a sliding scale dependent upon the size of the total intended purchase.

c) **Management Service Agreement (MSA)**

A Management Service Agreement (MSA) is a form of Trust Fund Agreement and is, in most aspects, similar in nature to this agreement with one major exception. Under an MSA, the cost of providing the service is calculated so that all management and administration costs incurred by the Organization are recovered. Accordingly, a specific handling charge based on the estimated actual cost of delivering the services, and not on a fixed percentage of the contract value, is included in the contract.

9. TYPES OF COOPERATION

The various types of cooperation, which can be rendered, may be summarized under the following main headings:

a) **Experts**

Internationally-recruited experts may be provided to serve as advisers to government or airline departments, to serve as instructors either at training centres or on-the-job, or to serve as executive personnel, titled OPAS providing **op**erational and **a**dministrative **s**ervices for the government.

b) **Fellowships and Scholarships**

For study abroad for nationals of assisted countries.

c) **Equipment**

Either for training or for operational purposes.

d) **Consultant and Sub-contract Services**

Covering a wide range of activities including technical advice, installation and construction.

e) **Regional/Interregional Experts**

Short-term assignments of experts to advise governments on particular problems or to give short training courses.

10.   TECHNICAL COOPERATION PROJECTS

Project Life Cycle - Definition of Requirements

a)   **Project Formulation**

- Identification of Government needs
- Mission for preparatory assistance
- Definition of requirements
- Framework for project formulation
- Project Document

b)   **Funding – Funding Partners**

- Recipient States
- Donor countries
- ICAO Objectives Implementation Funding Mechanism (OIFM)
- International financial institutions
- Regional development banks
- Private sector and aviation industry
- Regional organizations

c)   **Flexible Funding Modalities**

- UNDP/ICAO Projects
- Trust Fund Agreements (TF)
- Civil Aviation Purchasing Services (CAPS)
- Management Service Agreements (MSA)

d)   **Approval of Project**

e)   **Project Implementation**

-   Provision of experts, consultants, instructors and inspectors (access to over 4000 professionals)
- Administration of national personnel
- Procurement of equipment and services
- Training
- Technology and knowledge transfer

f)   **Review and Evaluation**

- Monitoring
- Project status reports
- Tripartite review
- Evaluation
- Relevance, effectiveness and impact

11. ICAO TRAINING PROGRAMMES

    a)   ICAO Fellowships Programme

        - Selected international civil aviation training centres/universities

    b)   ICAO experts as Instructors

        - Organization of workshops and seminars (regional and local)
        - On-the-job training

    c)   Training by equipment suppliers

    TRAINAIR Programme

    a)   Global course sharing system

        - Standardized training development methodology
        - Standardized Training Packages (STPs)
        - High-quality courses at low cost

    b)   International cooperative network of certified CATCs
    c)   Global TRAINAIR Training Symposium and conferences
    d)   Course developers' seminars

12. ICAO PROCUREMENT ACTIVITIES

    a)   Objective

        To ensure that procurement of equipment, supplies and services are effected in the best interests of the Organization and/or Assisted States.

        Procurement Activities support the projects administered by the Technical Co-operation programme in assisting Member States to implement ICAO Standards and Recommended Practices (SARPs).

        All Procurement Activities are regulated by the ICAO Procurement Code.

    b)   Why Use ICAO For Procurement?

        - Compliance with ICAO standards assured
        - Possibility to purchase under tax-free conditions
        - Insight on technological advances
        - Optimum warranty conditions
        - Clear and short delivery times
        - Full transparency – fairness of evaluation
        - Full contract management and supervision
        - Payment assurance – funds in trust (ICAO)
        - Open worldwide market

c) Typical Areas Of Implementation

Goods
- Aviation Security
- Satellite networks
- Navigational Aids
- Fire Fighting Vehicles
- ATC Centers and radar
- Comm. (VHF, HF, VCCS)
- Aircraft
- Airfield Lighting

Services
- Airport design
- Civil works design
- Feasibility Studies
- Airspace Planning
- Safety Audits

13.   SOME ACHIEVEMENTS OF THE TECHNICAL CO-OPERATION PROGRAMME

- Modernization of civil aviation law and regulations
- Development/restructuring of civil aviation institutions
- Establishment of autonomous civil aviation authorities
- Preparation of national civil aviation/airport master plans
- Establishment of national civil aviation training centres
- Professional development of civil aviation personnel
- Training of national aviation safety inspectors
- Implementation of air navigation systems and regional communications networks
- Development of sub-regional programmes for flight safety and aviation security
- Restoration of flight safety capabilities
- Remedying aviation security deficiencies
- Restoration of air traffic services in strife-torn regions
- Creation of a vehicle for private sector participation

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APPENDIX

TECHNICAL CO-OPERATION PROVIDED BY ICAO SINCE 1960

1. INTRODUCTION

A developing country may set itself three objectives in expanding its civil aviation activities.

1) Development of its internal air transport system, particularly where geography or lack of sufficient capital make the immediate provision of an extensive highway or railroad network impractical or impossible.

2) Provision of the necessary technical infrastructure, as required by the ICAO Regional Air Navigation Plans, to allow international air services - and the business, tourism and employment they may bring - to operate efficiently into and out of the country.

3) Development of its own international air service.

During the period 1960-2005, the International Civil Aviation Organization has, under the following programmes, provided cooperation in achieving these objectives:

- United Nations Development Programme, including Cost Sharing
- Fund for the Development of West Irian
- Congo Central Trust Fund (and other Congo programmes)
- Various Trust Fund Arrangements
- Management Service Agreements (MSA)
- The Civil Aviation Purchasing Service (CAPS) and
- The ICAO Objectives Implementation Funding Mechanism (OIFM).
- Cooperative Development of Operational Safety and Continuing Airworthiness (COSCAP)
- Cooperative Aviation Security Programme (CASP)

This co-operation has consisted of one or more of the following elements[1]: experts, fellowships, and equipment. In the case of experts, assistance may have been provided by the assignment of a mission of one or more experts or by relatively short-term visits by experts of the ICAO regional/interregional projects.

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[1] From time to time, there may be a requirement for cooperation which cannot be satisfied by the normal provision of experts, fellowships and equipment. For example, the assistance may require a specialized team effort for a relatively short space of time, and this type of team expertise can only be obtained by sub-contracting with a consulting firm.

2.   COOPERATION OF AN ADVISORY OR OPERATIONAL NATURE

While much of the aid provided by ICAO has been in the area of specialized technical aviation training, ICAO has always provided advice - and operational assistance under OPAS - in the fields of governmental responsibility in civil aviation. Recently there has been a tendency for this aid to increase in amount but also in variety; for instance, in the field of cooperation with national airlines. The following examples of cooperation will indicate this variety:

- In the re-establishment of air navigation and aeronautical meteorological services at an international airport after the withdrawal of a colonial power.

- In the initial operation of air navigation and aeronautical meteorological services at a new airport.

- In the establishment, organization and operation of Departments of Civil Aviation.

- In the development of aeronautical communications, operations and air traffic control services (including training of national staff to take over these responsibilities) and in the installation and maintenance of radio navigational aids.

- In the supply of very high frequency (VHF) extended range communications within four countries of South America.

- In carrying out preliminary feasibility studies for the siting, establishment and extension of international airports.

- In the management of airports.

- In the design of air terminal complexes.

- In the installation of a "real-time" computerized air passenger reservation system.

- In the design, procurement and installation of computer networks and management information systems for DGCAs.

- In connection with the flight checking of navigational aids.

- In the improvement of flight safety and regularity.

- In surveys of civil aviation requirements (in cooperation with lending institutions such as the International Bank for Reconstruction and Development and the Asian Development Bank).

- In the preparation of civil aviation development plans.

- In the preparation of civil aviation laws.

- In the development of an inter-governmental agency to operate air navigation services.

- In the drafting of regulations and procedures for the certification of aircraft as airworthy, and for the licensing of aeronautical personnel.

- In the establishment of remote communications switching centres.

- In the improvement of civil aviation training centres and joining the TRAINAIR Programme.

- In the study of the role of civil aviation can play in the economic development of African States.

3.   COOPERATION IN TRAINING

In the area of training, ICAO's efforts have been devoted to providing cooperation to national training schools, to providing on-the-job training and to helping governments create large-scale permanent institutions capable of forming technicians in the various specialized fields of aviation. Most of these institutions are designed to provide *ab initio* training, although they frequently provide specialist, refresher and advanced courses as well.

In certain cases the schools and institutes developed with ICAO aid, in addition to providing training to their own nationals, accept students from other countries.

The following is a list of the various major fields of civil aviation in which instruction is provided:

- Accident Investigation and Prevention
- Aeronautical Information Services
- Aeronautical Meteorological Services
- Air Traffic Control and Search and Rescue Services
- Air Transport
- Aircraft Maintenance and Airworthiness
- Airport Engineering and Maintenance
- Airport Rescue and Fire Fighting Services
- Management
- Aviation Medicine
- Civil Aviation Administration and Legislation
- Aeronautical Communications and Navaids Maintenance
- Aeronautical Communications Operations
- Training Technology
- Flight Operations Services
- Flight Calibration
- Airline Cabin and Support Services
- Language Training
- Aviation Security

In addition to the instructional cooperation provided by ICAO experts - either in school organization, in classroom or on-the-job training - fellowships have been given to nationals of the assisted countries for study abroad in the various fields of civil aviation, either in developed or in developing countries where aeronautical training institutes have been established with ICAO/UNDP assistance.

4.   REGIONAL/INTERREGIONAL PROJECTS

ICAO regional/interregional projects consist of projects involving one or more experts who make short-term[2] visits to countries to provide specialized advice or to conduct specialized courses. During the period 1960-2005, the following types of regional/interregional projects were carried out.

- Administrative - Financial
- Aerodrome Engineering
- Aerodrome Fire and Rescue Services
- Aeronautical Information Services
- Aeronautical Training (Fellowships)
- Air Freight Studies
- Air Services Operations
- Air Traffic Services
- Air Transport Services
- Air Transport Economics
- Airworthiness
- Aviation Legislation
- Aviation Security
- Communications Operations
- Electronic Engineering
- Flight Safety (Airworthiness and Personnel Licensing/Operations)
- Frequency Search
- Manpower Adviser
- Personnel Licensing/Operations
- Teletypewriter Maintenance
- Training Adviser
- Planning and Systematization
- Institutional Strengthening
- CNS/ATM Consultant
- Feasibility Study - ATS Systems
- Planning of Computerization

5.   COOPERATIVE DEVELOPMENT OF OPERATIONAL SAFETY AND CONTINUING AIRWORTHINESS PROGRAMMES (COSCAP)

The Cooperative Development of Operational Safety and Continuing Airworthiness Programme (COSCAP) is a sub-regional cooperative agreement executed by ICAO by means of a Trust Fund, which is aimed at enhancing the safety and efficiency of air transport operations in the corresponding sub-region. The aim of the programme is to overcome deficiencies in the flight safety oversight capability of participant States, by improving the implementation of Standards and Recommended Practices contained in the Annexes to the Chicago Convention and by establishing a core of highly qualified flight operations and airworthiness inspectors (regional aviation safety teams), to perform the full range of flight safety inspection and certification functions on behalf of the participant States, as required.

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[2]   The duration of the visit is intended to be long enough to produce positive results in a restructured field of activity; depending on the nature of the task and the availability of manpower, repeat visits are arranged at the request of States.

The COSCAP Programme is guided by a Project Steering Committee, comprising the DGCAs of the Member States, Director, Technical Cooperation Bureau of ICAO or his representative, ICAO Regional Director or his representative, and the Project's Chief Technical Advisor/Project Coordinator. The representatives of the donor community and other organizations participating in Programme funding in cash and/or in kind are invited to participate at all Steering Committee meetings that are held on a regular basis to review the progress of the programme and to assign priorities for future work.

The annual programme is divided between those activities that are Programme specific and those that are State specific.

a) **Programme Activities**

Programme activities comprise, *inter alia*:

- development of harmonized safety-related regulations and standards;

- development of Inspector Manuals containing generic policy and procedures manuals to guide inspector certification and safety oversight functions. These manuals can be easily adapted by Member States to reflect the requirements of that State;

- training programmes targeted at flight operations and airworthiness inspectors;

- regulatory audits: COSCAP inspectors conduct regulatory audits on air operators in the sub-region at the request of the Directors General of Civil Aviation. In addition to assisting States with their regulatory oversight responsibilities, the audits provide an excellent opportunity to provide on-the-job training to national inspectors;

- inspections and certification activities;

- technical assistance and guidance on interpretation of regulations/standards, best practices, and/or technical matters, and in the development and implementation of USOAP-related corrective action plans;

- aerodrome certification and assistance in the development of aerodrome certification programmes, regulations and procedures; and

- training in safety management systems for personnel from the regulatory bodies and the industry.

6. COOPERATIVE AVIATION SECURITY PROGRAMME (CASP)

In pursing a more cost-effective approach to project implementation, a new programme in the field of aviation security has been developed by the ICAO Technical Co-operation Bureau for implementation on a sub-regional basis, namely the Cooperative Aviation Security Programme (CASP).

The CASP primarily aims at enhancing aviation security capabilities of participating States and their international airports to comply with international requirements and ICAO SARPs by providing the required regulatory, technical and training expertise. The programme will also promote the establishment of a standing aviation security structure in the sub-region, manned by personnel trained through CASP, which is expected to provide advice, assistance and training, as well to promote cooperation and coordination among aviation security authorities for discussion of aviation security issues and the exchange of information.

In the light of USAP audit reports made available at the discretion of each State, the CASP may also undertake the review of national civil aviation security programmes, including related regulations, practices and procedures to ensure their full implementation in compliance with ICAO requirements.

For close monitoring and increased effectiveness, a Project Steering Committee composed of senior representatives of ICAO, the aviation security authorities of participating States, the major donors and the Project Coordinator will be established for each CASP project to review its progress, take note of difficulties encountered, adopt proposals to increase effectiveness, agree to modifications to project activities, inputs and contributions as necessary, and approve the workplan for the subsequent year.

7.   TRAINAIR

In July 1989, the UNDP approved an interregional project called TRAINAIR. This project undertook essential preliminary activities leading to a global training resource network between the civil aviation training centres of the developing world. The TRAINAIR Programme enables participating training centres to become academically self-sufficient and, through the utilization of shared resources, permit them to provide more cost-efficient and effective training to the personnel of their civil aviation sectors. The TRAINAIR Unit is located in the ICAO Technical Co-operation Bureau.

8.   ICAO POLICIES ON TECHNICAL COOPERATION

ICAO's policies on technical cooperation are, in general, contained in the resolutions on this subject adopted by the ICAO Assembly prior to the name change from "Technical Assistance" to "Technical Co-operation". Furthermore, the 31st Session of the ICAO Assembly in 1995 adopted Resolution A31-14 – *Transition to a New Policy on Technical Co-operation*. This Resolution was thereafter updated by subsequent Assemblies.

9.   TECHNICAL COOPERATION RESOLUTIONS IN FORCE

The following technical cooperation Resolutions in force can be found in Doc 9848 – Assembly Resolutions in Force (as of 8 October 2004).

> *A35-20 – Update of the New Policy on Technical Co-operation*
> *A35-21 – Expansion of ICAO Technical Co-operation Activities*
> *A26-16 - Technical Assistance*
> *A27-18 – Funding for Technical Assistance Activities*
> *A27-20 - Enhancement of Training and Maintenance of Equipment Capabilities for Technical Assistance*
> *A24-17 – Scholarships and Fellowships for Basic and Advanced Training*
> *A22-11 – International Assistance in Re-Establishing Operation of International Airports and Related Air Navigation Facilities*

A22-19 -   Assistance and Advice in the Implementation of Regional Plans
A16-7   –   Aeronautical Technical Training

– END –

Regional Affairs Office

ICAO FAMILIARIZATION COURSE

REGIONAL AFFAIRS OFFICE

THE AIR NAVIGATION REGIONS AND THE REGIONAL STRUCTURE OF THE ORGANIZATION

Lecture No. 1

DOCUMENTS FOR REFERENCE

Doc 7300/6 — *Convention on International Civil Aviation*
Doc 8144-AN/874/6 — *Directives to Regional Air Navigation Meetings*
Air Navigation Plan Publications

I. HISTORICAL BACKGROUND

1.	Shortly after the establishment of the Organization in December 1944, the Interim Council recognized the need to subdivide the world into air navigation regions in order to facilitate the planning and implementation of ground services and facilities essential for international air transport operations. The two principal concepts which led to this conclusion are:

a)	As the operational and technical problems inherent in different parts of the world varied considerably, it was logical that planning and implementation of the required ground services should be carried out on an area or regional basis - the geographical limits of which should be such as to encompass air route stages having a certain degree of homogeneity, and therefore entailing a somewhat uniform set of requirements.

b)	Planning is best done through consultation among a limited number of States in preference to planning the requirements for air navigation facilities and services on a world-wide basis. These consultations are normally carried out through the convening of regional air navigation meetings and the need to limit the size of such meetings to workable proportions is self-evident. It may be said therefore that even if no significant variations in technical circumstances were to exist in different parts of the world, it would be administratively impractical to plan all facilities and services on a world-wide basis.

2.	The geographical and climatological conditions may also play a role in determining the requirements for air navigation services and facilities and the means by which they can be met. For example, navigation coverage for oceanic and desert areas may have to be satisfied by long range facilities installed at sites where power and access are available, and communications facilities installed in mountainous areas may have to be of the extended range type, using a number of relay stations, to overcome terrain

obstructions. The determination of the types and capabilities of search and rescue facilities and aerodrome services to be provided are also dependent upon certain geographical and operational considerations.

3.   With the foregoing in mind, the Interim Council agreed in 1945 to establish ten air navigation regions, the boundaries of which roughly coincided with the continental and oceanic masses. In defining these boundaries, provision was made for overlapping of the regions at the edges such that as many as possible of the terminals associated with the air route network for the region were included within the region. The original ten air navigation regions consisted of the African-Indian Ocean, the Caribbean, the European-Mediterranean, the Middle East, the North Atlantic, The North Pacific, the South American, the South Atlantic, the South Pacific and the Southeast Asian Regions. By 1952, the number of regions was reduced to eight by combining the North and South Pacific Regions and the South American and the South Atlantic Regions.

4.   The advent of jet aircraft in 1957-1958 led to introduction of considerably longer route stage lengths, many of which traverse the full extent of two or more regions. This, in turn, pointed to the need for a further revision of the regional structure and the 14th Session of the ICAO Assembly in 1962 directed Council to undertake a study of the regional structure in the light of existing and future developments and to overcome certain problems such as those posed by the overlapping of the regions and by the non-inclusion of certain areas in the regional structure.

II. PRESENT REGIONAL STRUCTURE

5.   The results of the Council's study confirmed that planning on an area basis should continue and that the concept of dividing the world into air navigation regions should be retained, but mainly to provide a starting point in establishing the geographical area to be considered by a particular regional air navigation meeting and to serve as a basis for the distribution of all planned facilities and services resulting from the regional planning processes, over a series of air navigation plan publications. The Council redefined the air navigation regions by eliminating any overlapping between regions, including the associated polar areas in the regions, and establishing a North American Region to encompass Canada, the United States and the associated polar area. The present regional structure is defined in the Appendix to the Directives to Regional Air Navigation Meetings and Rules of Procedure for their Conduct (Doc 8144-AN/874/6).

III.   DESIGNATION OF REGIONAL STATES

6.   For purposes of planning and facilitating the follow-up of implementation of the required air navigation services and facilities, the States have been categorized in two main groups - those which are geographically situated within the region or have territory in that region and States which are not located in the region but have air carriers on their registry or aircraft operated by an operator who has his principal place of business or his permanent residence in such States which operate or expect to operate international air traffic operations in the region. The States belonging to the first group are essentially those which are responsible for the provision of the services and facilities required in the region and are, for purposes of brevity, referred to as 'provider States'. The States of the second group are usually referred to as user States.

7. Under the foregoing categorization, a State may be both a 'provider' and a 'user' State in a region in which it is situated or in other regions in which it has territories. A State may also have provider interests in a number of regions because of its location in an area where various international routes associated with the regions intermesh. An example of this is the United States which has provider interests in the Pacific, the North Atlantic, the Caribbean and the North American Regions. On the other hand, a State may have

user interests in any number or all of the established air navigation regions depending on the international routes flown by its airlines. Examples are the round-the-world operators, e.g. Japan, France, the United Kingdom, the United States, etc., whose airlines operate throughout the world.

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ICAO FAMILIARIZATION COURSE

REGIONAL AFFAIRS OFFICE

RESPONSIBILITIES OF THE REGIONAL ORGANIZATION

Lecture No. 2

DOCUMENTS FOR REFERENCE

ICAO Directory
Air Navigation Plan Publications

I.   OBJECTIVES OF THE REGIONAL OFFICES

1.   Along with the subdivision of the world into air navigation regions, the need to establish regional offices to discharge the continuing responsibilities of the Organization becomes self-evident. These responsibilities consist mainly of assisting in the pursuit of the objectives of ICAO, encouraging States to implement the policies and directives of the Organization, and assisting them as necessary in that task.

2.   The seven Regional Offices of ICAO and their respective locations are:

Asia and Pacific Office - Bangkok
Eastern and Southern African Office - Nairobi
European and North Atlantic Office - Paris
Middle East Office - Cairo
North American, Central American and Caribbean Office - Mexico
South American Office - Lima
Western and Central African Office - Dakar

3.   The work programme of the Regional Offices in ICAO as it appears in Doc 9699 Programme Budget of the Organization 1999-2000-2001, has been reproduced in the attachment.

II.   FUNCTIONS AND WORKING METHODS OF THE REGIONAL OFFICES

4.   The Regional Offices are primarily responsible for, and report directly to the Secretary General on, maintaining continuous liaison with the States to which they are accredited and with other appropriate organizations to promote implementation of ICAO policies, decisions and requirements. In pursuing that primary role, the Offices carry out tasks and duties under the general direction of the Director of the Bureau or the Chief of the Office concerned at Headquarters as outlined in the following paragraphs.

5.   Under the general direction of the Director, Air Navigation Bureau, the Regional Offices:

a)   Inform States of the extent and nature of the requirements of the Air Navigation Plans and those of appropriate recommendations of regional air navigation meetings, and advise on how the requirements should be implemented.

b)   Advise and assist States in resolving problems encountered in the organizational, operational, procedural, logistical and maintenance aspects of the provision of air navigation services and facilities including those related to manning and training.

c)   Ensure, in consultation with States as appropriate, that the Air Navigation Plans are up to date in the light of current and foreseen operational requirements.

d)   Monitor progress in the implementation of Air Navigation Plans and forward to Headquarters information and other factual material as required.

e)   Monitor progress of States in achieving satisfactory implementation of Annex and PANS provisions and forward to Headquarters information and other factual material as required.

f)   Monitor significant deficiencies in States' ability to implement Annex and PANS provision, and, as necessary or directed, consult with the authorities concerned on the possible elimination of the differences.

g)   Co-ordinate joint implementation action by States and arrange for discussions between authorities of two or more States including, if necessary, the convening of informal meetings when problems of co-ordination arise.

h)   Recommend any necessary special measures to foster implementation, including joint multilateral action, special implementation projects, the establishment of operating agencies, the negotiation of loans or other appropriate projects.

i)   Carry out missions to States for liaison or consultation purposes on any or all of the above subjects.

j)   Provide Secretariat services to regional planning and implementation groups.

6.   Under the general direction of the Director, Air Transport Bureau, the Regional Offices:

a)   Establish and maintain close relations with the competent authorities of the national administrations dealing with the regulation, economics, statistics and facilitation of international transport;

b)   keep States and appropriate international organizations currently informed of the objectives, activities and requirements of ICAO in the air transport field;

c)   Provide services to regional civil aviation organizations in accordance with established working arrangements;

d)   keep the Air Transport Bureau continuously informed of the activities, views, problems and needs of States in the air transport field and of the relevant activities of other international organizations;

e)   foster, as appropriate, the implementation of the Organizations's work programme in air transport matters; and

f)   carry out missions to States for liaison or consultation purposes on any or all the above subjects.

7.   Under the general direction of the Director, Technical Co-operation Bureau, the Regional
Offices:

a)   Keep as fully informed as possible on the state of civil aviation development - international and domestic - within the region of either a country or an inter-country nature; identify needs for improvement in civil aviation facilities and services within the region and prepare and keep up to date country briefs;

b)   establish and maintain effective working relationships with the civil aviation authorities of States in the region, consult/advise them concerning their development requirements, both of a technical co-operation and investment nature, and provide them with guidance on the procedures to be followed in obtaining development assistance from suitable funding sources; ensure that States are aware of the Civil Aviation Purchasing Service (CAPS) and its provisions;

c)   advise and assist the Technical Co-operation Bureau on matters appertaining to the development of the Technical Co-operation Programme and recommend project proposals for presentation to States and to appropriate funding sources;

d)   co-operate with technical co-operation sectoral planning missions and, if so directed or approved by ICAO Headquarters, participate in such missions.

e)   take part in country and inter-country programming exercises of UNDP and of other funding sources, as well as in donor/round table conferences, if so directed or approved by ICAO Headquarters;

f)   formulate civil aviation project documentation in consultation with the civil aviation authorities of States and with appropriate funding sources;

g)   advise and consult UNDP Resident Representatives/Resident Co-ordinators and technical co-operation missions assigned to the States of the region;

h)   maintain information on and foster talks with the representatives of funding sources within the region interested in the development of civil aviation and establish effective relations with them;

i)   assist the Technical Co-operation Bureau in the supervision, monitoring and back-stopping of the Technical Co-operation Programme within the region through participation in missions to States and Tripartite Reviews on on-going projects etc.; and

j)   under delegated authority from D/TCB, administer the regional fellowship component on technical co-operation projects, including the award of fellowships to training institutions within the region.

8.   Under the general direction of the Director, Legal Bureau, the Regional Offices:

a)   Advise States on questions of interpretation of the Convention on International Civil Aviation and other related Acts if competent to do so; otherwise, refer such matters to Headquarters.

b)   Keep Headquarters informed of significant developments in the legal field in the States to which the Office is accredited.

c)   Obtain, on behalf of Headquarters, copies of current air laws and judicial decisions on aeronautical matters and information on contemplated air legislation.

9.   Under the general direction of the Chief, External Relations and Public Information Office, the Regional Offices:

a)   Provide ICAO publicity material to the press and participate in television, radio or newspaper interviews, as requested or opportune.

b)   Prepare articles for aviation periodicals and provide lectures on the objectives and activities of the Organization, as necessary and convenient.

c)   Arrange for ICAO visual or audio displays or exhibitions as required.

10.   The Regional Offices also carry out tasks and responsibilities of a general nature, which are:

a)   Report on any evident need for formal or informal regional meetings, seminars and workshops and assist, as may be required, in the organization and conduct of such meetings or gatherings.

b)   Represent the Organization at meetings of other organizations as directed or approved by Headquarters.

c)   Ensure that the administration and operation of the Office is in accordance with the regulations contained in the ICAO Service Code, the ICAO Staff Rules and ICAO Personnel Instructions (which are gradually replacing the General Secretariat Instructions), any residual General Secretariat Instructions, the Regional Office Manual and such other directives as may be promulgated from time to time.

d)   Perform such other duties as may be assigned by the Secretary General.

11.   The types of expertise available in the Regional Offices vary to some extent from Office to Office, although experts in air traffic services, meteorology, communications, technical co-operation and air transport are generally available in all of the Offices. Expertise in other fields, e.g. AGA, operations and manpower and training, has been made available where a clear requirement for it exists. Information on the current staffing of the Offices, including the names of the staff members and their respective specialties is contained in the ICAO Directory.

12.   Except in a few cases where arrangements for direct correspondence between States and any Regional Office have been made by the Administrations concerned, the Offices normally correspond only with the States to which they are accredited. Accreditation of the Offices to States is determined on the basis of the following considerations:

    a)   the accrediting of each Office to the maximum possible number of States and dependent territories lying within the air navigation regions with which the Office is associated geographically;

    b)   the accessibility of each Office to and from the capitals of the States to which it is accredited; and

    c)   the wishes of the State concerned.

13.   Taking the Africa-Indian Ocean Region as an example, the accreditation of the Dakar Office is confined generally to the States in the western half of the continent, mainly by reason of accessibility of the capitals of the States from Dakar. For similar reasons, it will be noted that the Paris Office is accredited to some of the northern African States, i.e. Algeria, Morocco and Tunisia, and that the Nairobi Office is accredited to the States along the main trunk route serving the eastern part of the continent, i.e Ethiopia, Kenya, Tanzania and Madagascar.

14.   Each of the Offices carries out visits to the States at intervals of one or two years or less, as necessary, depending on the wishes of a State, the availability of travel funds and staff. These visits are aimed at promoting a close relationship between the Regional Office and the Administrations to which it is accredited and discussion of any outstanding matters of mutual interest.

15.   The missions carried out by the offices generally follow a common pattern. To make the visit as effective as possible, all available professional members of the Office assist in the preparation of detailed "Notes for Discussion" on each of the various aspects of ICAO activities (AGA, CNS, MET, ATM, SAR, FAL, LEB, AT, TC, etc.) and these are sent to the States to be visited, if possible, three weeks to a month in advance of the visit. The actual missions take the form of a series of meetings with Officers of the various relevant branches in the civil aviation administration. A typical visit begins with a joint session, under the chairmanship of the Director of Civil Aviation and attended by the heads of the sections and branches concerned, in which the problems for discussion are outlined and a programme of meetings and visits to the air navigation services and facilities is arranged. This is followed by a series of detailed discussions with each of the officers in charge of the various activities during which any specific outstanding problems are discussed. At the end of a visit, a closing session with the DCA and his advisors is arranged during which the results and conclusions reached in the various discussions and visits to the operational facilities are reviewed. Upon completion of a mission the Officer carrying out the visit prepares a report, a copy of which is normally sent to the State to serve as an Aide Memoire on the conclusions and recommendations resulting from the visit.

III.   **ROLE OF THE REGIONAL AFFAIRS OFFICE AT HEADQUARTERS**

16.   With the location of the regional offices in widely separated points in the world and the diversity of interpretation which might be placed on the decisions and recommendations of Council and the Secretariat, the need for a central co-ordinating body is evident. This function is provided by the Regional Affairs Office, the chief of which is directly responsible to the Secretary General. The Office maintains a monitoring watch on the activities of all the Regional Offices, relays the policies of ICAO to them, co-ordinates their work with that of the various Bureaux and Offices at Headquarters, ensures that their

administrative needs are met as promptly as possible, and co-ordinates arrangements for the convening of regional meetings.

17.   As a consequence of its central co-ordinating function, the Regional Affairs Office is responsible for providing the necessary secretarial services to the deliberative bodies of ICAO on matters of a regional nature. It prepares documentation on regional matters which are dealt with by the Air Navigation Commission, the Council and the Assembly, and follows up the recommendations and conclusions arising from consideration of those matters. In particular, the Regional Affairs Office services the ANC Working Group on Regional Plans and the Council Standing Group on Implementation. The Working Group on Regional Plans deals primarily with the tasks assigned to it for study by the Air Navigation Commission on questions relating to the convening of RAN meetings, the activities of the ICAO planning and implementation regional groups (PIRGs) or the regional planning of the facilities and services required by international civil aviation. On the other hand, the Council Standing Group on Implementation considers problems of a far-reaching nature associated with the implementation of regional plans, and recommends special measures to overcome any serious shortcomings in the implementation by States of the requirements.

ATTACHMENT

WORK PROGRAMME OF THE REGIONAL OFFICES IN ICAO

(Reproduced from Doc 9699, Programme Budget
of the Organization 1999-2000-2001)

1.   The functions of the Regional Offices consist mainly of assisting in the pursuit of the objectives of ICAO, encouraging States to implement the policies and directives of the Organization in the field of Air Navigation, Air Transport, Technical Co-operation, Legal and other matters of general nature, and assisting them as necessary in that task. To this end, the Regional Offices maintain continuous liaison with the States to which they are accredited and with other appropriate organizations to promote implementation of ICAO decisions and requirements. The work is carried out through correspondence between the Regional Offices and States to which they are accredited, during visits to States by ICAO Representatives and Staff of the Regional Offices, by arranging informal meetings and participating in discussions between States on matters related to implementation of Regional Air Navigation Plan requirements and by conducting seminars and workshops, as appropriate. In co-ordination with ICAO Headquarters the Regional Offices organize seminars and workshops for exchange of views and keeping civil aviation staff in the States abreast with the latest developments in certain selected fields. The Regional Offices assist regional civil aviation bodies by providing administrative support to these bodies where applicable. Equally, the Regional Offices provide Secretariat services to regional planning groups which have been established to assist States in the planning, co-ordination and implementation of regional air navigation plans.

2.   The personnel of the Regional Offices include, in general, specialists in the following disciplines: air traffic services, communications, meteorology, aeronautical information services, aerodromes and grounds aids, aircraft operations, manpower and training and air transport and technical co-operation.   The Regional Offices also advise States on matters concerning their requirements for technical co-operation in various fields, many of which are directly related to the implementation of regional plans. In addition, the Regional Offices play a vital role in special implementation projects. They identify and formulate these projects and supervise and follow-up projects approved by Council.

3.   The Regional Affairs Office at Headquarters co-ordinates and provides support to the Regional Offices in technical and administrative aspects related to the execution of the programme.

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ICAO FAMILIARIZATION COURSE

REGICAL AFFAIRS OFFICE

REGIONAL AIR NAVIGATION MEETINGS

Lecture No. 3

DOCUMENTS FOR REFERENCE

Doc 7300/6 — *Convention on International Civil Aviation*
Doc 8144-AN/874/6 — *Directives to Regional Air Navigation Meetings*
Doc 7030/4 — *Regional Supplementary Procedures*
Air Navigation Plan Publications

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1.   Regional Air Navigation Meetings are convened by the Council of ICAO on recommendations of the Air Navigation Commission based on existing and future requirements of the region(s) concerned. The Council determines the date of the meeting in the light of the overall programme of meetings; the site of the meeting taking into account the desirability of holding the meeting within the region and the availability of a host-State; and the languages to be used according to which of the ICAO working languages are predominant in the region. The Air Navigation Commission establishes the agenda for the meeting, determines its technical and geographical scope, and the organization and structure of the meeting. The recommendations of a Regional Air Navigation Meeting are subject to the approval of the Council and the Air Navigation Commission acting under authority delegated by the Council.

2.   The objective of a Regional Air Navigation Meeting is to prepare, amend or supplement a regional plan, or plans, for the whole or parts of one or more air navigation regions. The purpose of a regional plan is to set forth in detail the facilities, services and procedures to be provided by States pursuant to Article 28 of the Convention to accommodate the needs of international civil aviation within a region. However, prior to a Regional Air Navigation Meeting, States intending to participate in the meeting are reminded of the need to give due weight to economic factors, but without losing sight of safety requirements, when considering the inclusion in a regional plan of any new or improved air navigation facilities. Consequently, the regional plan will contain recommendations which governments can follow in programming the provision of their air navigation facilities and services, with the assurance that facilities and services furnished in accordance with the plan will form with those of other States an integrated system and will be adequate for the foreseeable future. When changing circumstances make it necessary to update a regional plan in the interval between Regional Air Navigation Meetings the procedure for the amendment of regional plans discussed in Lecture No. 5 is followed.

3.   The decision to convene a Regional Air Navigation Meeting normally originates from recommendations of the Regional Offices. Each year the Regional Offices submit proposals for meetings expected to be required in their regions for the next three years. Their proposals along with proposals for other types of meetings are considered by the ANC and Council in preparing, for planning and budgetary purposes, the programme of meetings for the period under review. Subsequently the Regional Offices, on

the basis of their knowledge of the requirements of the region derived from their contact with States, submit detailed proposals, including subjects required to be considered by a meeting. The Air Navigation Commission, on the basis of these proposals and consultations with States of the region, recommends to Council that the meeting be convened.

4.   Also on the basis of its consultation with States, the Air Navigation Commission establishes the agenda and scope of the meeting. The technical scope of the meeting, as prescribed by the agenda, comprises the preparation of plans for facilities, services and procedures in the AGA, AIS, CNS, MET, ATM and SAR fields, in sufficient detail to ensure proper functioning of the plan as a whole and its adequacy to meet present and foreseen operational requirements. The geographical scope of the meeting may encompass, either partly or wholly, one or more air navigation regions.

5.   The structure of the meeting is established by the Air Navigation Commission to meet the needs of the Meeting as determined by its scope. Unless the scope calls for the establishment of other committees, the structure normally consists of a General Committee, a Co-ordinating Group, an Implementation Working Group of the General Committee and technical committees, to cover, as required, the following subjects, or combinations thereof:

  a) Aerodromes and Ground Aids
  b) Air Traffic Management
  c) Search and Rescue
  d) Communications systems
  e) Meteorology
  f) Aeronautical Information Services and Charts
  g) Navigation and Surveillance systems

The technical committees mentioned above should normally be the following:

  — AIS Committee
  — AOP Committee
  — ATM Committee
  — CNS Committee
  — MET Committee

Note: Matters related to navigational aids will be co-ordinated amongst the AOP, ATM and CNS Committees.

6.   The Rules of Procedure for the conduct of Regional Air Navigation Meetings define the rights of participants in the meeting, prescribe the officers to be elected and outline certain organizational arrangements. In general, they conform to established parliamentary procedure.

7.   The General Committee serves as the principal body of the Meeting and is responsible for the formulation of directives and policies to guide the work of the meeting as a whole. In addition, it performs functions of a quasi-administrative nature, such as carrying out the opening and closing formalities of the meeting, adoption of the agenda and the organization plan, etc. The actual work of the meeting is co-ordinated by the Co-ordinating Group and it is this Group which decides on the sequence in which the reports from the technical committees are to be reviewed by the General Committee for consistency between and relevancy of their plans. The General Committee thus progressively compiles and approves the report of the meeting in its component parts as the meeting advances through its agenda.

8.   The basis for the formulation or review and amendment of a regional plan is two-fold. Firstly, it is based on traffic forecasts, when available, or on aircraft operations being carried out and

expected to be introduced during the period under review. The second basis for regional planning is a statement of basic operational requirements and planning criteria developed by the Air Navigation Commission. The requirements and criteria contained in the statement are supplementary to the relevant provisions of the ICAO Convention, Annexes and PANS and world-wide planning criteria.

9.   One of the tasks of the meeting is the preparation of a coordinated implementation programme and to this end the General Committee establishes, early in the meeting, an Implementation Working Group to consider such matters as:

    a) general, financing and co-ordination aspects of implementation and external assistance matters;

    b) evaluation of personnel needs and training requirements;

    c) any requirements for special implementation projects;

    d) any foreseeable need to convene informal meetings to deal with specific implementation projects.

The Implementation Working Group also reviews, as they become available from the technical committees, all proposals for implementation dates requiring co-ordination, i.e. those of related facilities, services or procedures, to ensure compatibility between them and to assign priorities as appropriate.

10.   Normally, if during the meeting a State objects to a proposal and if the objection cannot be resolved during the discussions, the technical committee concerned may include in its report to the General Committee a recommendation suggesting post-meeting action with a view to finding a solution to the problem. The objecting State may also submit a statement reflecting its position, for inclusion in the report of the meeting. However, in January 1974 the Council established an experimental procedure to deal with objections raised and maintained by States during the meeting, or in subsequent notifications to the Secretary General prior to Council approval of the relevant recommendations, against the inclusion of certain facilities and/or services in the plan on the grounds that, in their opinion, the facilities/services are not required for international air navigation. In such cases the State originating the proposal is requested to provide an estimate of the total annual costs of the facilities and/or services in question as well as an assessment of the impact that implementation would have on users as a result of the cost-recovery rates associated with any current or planned user charge systems. These estimates, together with an evaluation by ICAO and any advice and recommendations of the Air Navigation Commission and the Air Transport Committee, are then submitted to the Council for its consideration and action.

11.   Since regional meetings are convened by the Council, the recommendations made by such meetings do not have any formal status until they have been acted upon by the Council or by the Air Navigation Commission acting under authority delegated by the Council. Following the meeting, the Air Navigation Commission and Council review the report of the meeting and approve the recommendations or, if they deem it appropriate, take alternative action on them. A report on the action taken by the Council and the Air Navigation Commission is issued as a supplement to the report of the meeting.

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ICAO FAMILIARIZATION COURSE

REGIONAL AFFAIRS OFFICE

FOLLOW-UP OF REGIONAL RECOMMENDATIONS

Lecture No. 4

DOCUMENTS FOR REFERENCE

Doc 8144-AN/874/6 — *Directives to Regional Air Navigation Meetings
and Rules of Procedure for their Conduct*
Doc 7030/4 — *Regional Supplementary Procedures*
Air Navigation Plan Publications

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1.   The Air Navigation Plan publications are the vehicles for conveying to States and international organizations concerned, details of the regional plans. They list the facilities and services that have been recommended by regional navigation meetings and are maintained up to date by periodic revision between meetings to include amendments which have been processed by correspondence in accordance with the procedure outlined in Lecture No 5.

2.   The prime responsibility for follow-up of implementation of regional plans rests with the regional offices. Through missions to States and by correspondence they offer technical advice to States and encourage them to provide the recommended facilities and services by the time they are required. Where necessary they provide co-ordination in the implementation of those facilities affecting more than one State or for which a co-ordinated implementation date is required.

3.   Following Council approval of the recommendations of a regional air navigation meeting, the Regional Office concerned prepares a country by country programme for implementation of the individual facilities and services required by the revised plan. This programme is communicated to the States concerned and after agreement is reached to the extent of States' ability to comply with the Council approved recommendations related to implementation dates, the programme is monitored by the regional office concerned with the assistance of the related planning and implementation regional group (PIRG).

4.   States encountering difficulties with the provision of an essential facility or service due to inadequate resources are encouraged to endeavour realizing implementation by means of loans for capital expenditures, operating agencies, technical assistance or other means. To this end the regional offices provide whatever assistance they can by way of providing information on institutions that make loans for this purpose and the terms and conditions under which they do so.

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ICAO FAMILIARIZATION COURSE

REGIONAL AFFAIRS OFFICE

PROCEDURE FOR AMENDMENT BY CORRESPONDENCE
OF REGIONAL PLANS INCLUDING PROCEDURES

Lecture No. 5

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DOCUMENTS FOR REFERENCE

Doc 7030/4 — *Regional Supplementary Procedures*
Air Navigation Plan Publications

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1.   In order to enable each regional plan for facilities and services to be maintained up to date, to reflect current operational requirements, it has to be amended from time to time. In the period between regional air navigation meetings this may be done through correspondence in accordance with the procedures established by the Council for this purpose (see related page of Air Navigation Plan publications).

2.   These procedures are based on an Assembly Resolution (A 32-14, Appendix K) that regional plans shall be revised when it becomes apparent that they are no longer consistent with current and foreseen requirements of international civil aviation and that, when the nature of a required change permits the associated amendment of the regional plan shall be undertaken by correspondence between the Organization and the Contracting States and international organizations concerned. When a State cannot immediately implement a particular part or a specific detail of a regional plan although it intends to do so when practicable, this in itself is not sufficient justification for the State to propose an amendment to the plan.

3.   States wishing to propose amendments to a regional plan, do so through the regional office accredited to the State, giving reasons for the proposed amendments. The Regional Office will then circulate the proposal, adequately documented, with a request for comments to other States which might be affected by the change and to international organizations concerned. If, by a specified date, no objection is raised to the proposal, it is submitted to the President of the Council, who is authorized to approve the amendment on behalf of the Council. If any objection is received to the proposal and if the objection remains after further consultation, the matter is documented for formal consideration by the Air Navigation Commission which will present appropriate recommendations to the Council. In the experience of the Organization, this is required only on rare occasions.

4.   Proposals submitted by international organizations recognized by the Council and directly concerned with the operation of aircraft, are dealt with in the same manner as those received from States

except that, before circulation, the Secretary General will ascertain that the proposal has the support of the State(s) whose facilities will be affected. If such support is not forthcoming, the proposal will be presented to the Air Navigation Commission for decision on the action to be taken on it.

5.   Proposals may also be initiated by the Secretary General provided that the State(s) whose facilities will be affected have expressed their agreement.

6.   In January 1974 the Council established an experimental procedure to deal with those objections raised specifically on the grounds that the proposed facility/service is not required for international air navigation. When such objection is raised the State originating the proposal is requested to provide estimates relating to the costs involved and their expected impact on any current or planned user charge system. These estimates together with their evaluation by ICAO are then sent to the States to whom the proposal was originally sent. If hereafter the objection remains, the amendment is documented for consideration by the Air Navigation Commission on its technical and the Air Transport Committee on its economic aspects, and ultimately by the Council for approval or disapproval (see also Lecture No. 3, para. 10).

7.   Amendments to the Supplementary Procedures (SUPPS) are handled in a similar fashion except that following agreement reached at the regional level, the Secretary General circulates the proposal to Members of the Air Navigation Commission and Representatives on the Council inviting each recipient to notify him, normally within seven days (during recess a period of three weeks will normally be allowed), whether he desires formal discussion of the proposed amendment. If at the end of the seven day period (three weeks during recess), there has been no request for discussion of the amendment, it is submitted to the President of the Council who is authorized to approve the amendment on behalf of the Council.

8.   Following approval of amendments to regional plans, including supplementary procedures, States and international organizations concerned are notified and, at convenient intervals, the amendments are published in the appropriate documents.

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ICAO FAMILIARIZATION COURSE

REGISTRICT... REGIONAL AFFAIRS OFFICE

INFORMAL MEETINGS

Lecture No. 6

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DOCUMENTS FOR REFERENCE

Nil

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I.   PURPOSE OF INFORMAL MEETINGS

1.   In previous discussions, we have dealt with regional air navigation meetings, the regional plans evolving from them and the follow-up action taken by the Regional Offices. It will be appreciated that the regional plan is only a framework around which the States develop the detailed planning necessary to implement the facilities and services required in the plan. Such details as types of equipment to be employed on point-to-point communication circuits between any two States, the flight levels to be flown on ATS routes between any two FIRs, the transfer of control points to be designated on those routes, etc. are generally not spelled out in the regional plan and are left for determination by the States concerned. There is therefore an obvious need for the States to collaborate and co-ordinate among themselves such details as are essential to implementation action. Much of this co-ordination is effected directly between the States themselves without any ICAO participation, although, in certain cases, particularly where more than two States are involved, the co-ordination could be expedited with the assistance of the Regional Office. Frequently, it is found expeditious to reach agreement on these details through the medium of informal meetings which may be convened either by a State, with advisory or secretariat services provided by the Regional Office, or by the Regional Office itself after consultation and agreement is reached among the States concerned on the need for such a meeting. Briefly stated, therefore, the purpose of informal meetings is primarily to advance or promote implementation of the elements of an approved plan and normally not to generate any new planning or re-planning of the requirements for air navigation services and facilities in a given area.

2.   The foregoing objective is explicitly stated in the directives established by the Council to govern the convening and conduct of informal meetings and to define the status of any recommendations arising from such meetings. These directives are:

> "1. The purpose of Informal RAN Meetings is to facilitate the implementation of established Regional Plans and associated Standards, Recommended Practices and Procedures through discussion of problems in a limited geographical area of interest to two or more States. Within this context informal RAN meetings may consider planning aspects, as necessary, to facilitate the formulation of amendments required to keep Regional Plans current.

2. Informal RAN Meetings are called by the Secretary General only when matters are clearly defined and appropriate for consideration; they are convened at the request of one or more Contracting States, or on his own initiative, after the States concerned have been consulted and have agreed to the need for the meeting and on the subjects to be discussed. Such gatherings should occur with a minimum of procedural formality.

3. The reports of such meetings will be presented as summaries of discussions and will cover agreements reached between the participants on arrangements for implementation of the approved Plan but will not be subject to action by the Council or the Air Navigation Commission.

4. Should the consideration of planning aspects by Informal RAN Meetings lead to the conclusion that amendments are required to the Plan the corresponding proposals will then be dealt with under the established procedure for the amendment of regional plans by correspondence.

5. The ICAO Regional Offices are available for informal meetings, but this shall not preclude them from being held elsewhere in the area by agreement with the States concerned, provided that any additional expense to the Organization is approved by the Secretary General as appropriate."

II.   **SCOPE OF INFORMAL MEETINGS**

3.   It will be evident that although the primary purpose of informal meetings is to further implementation of the regional plans, they are not precluded from discussing any need for amendments to the approved regional plan on the basis of the criteria established by the Council. Such discussions, however, should aim generally at obtaining agreement on the details of the proposal for amendment so as to facilitate formal acceptance of the proposal by all concerned when it is circulated in accordance with the procedure established by Council.

4.   Through the years, informal meetings have been convened for various reasons and circumstances, although these are ultimately aimed at furthering implementation of requirements already specified in the plan. These reasons or circumstances have included the following:

a) to exchange views and agree upon the desirable method or practice in meeting certain new requirements, such as the provision of runway visual range observations;

b) to discuss and agree upon uniform arrangements to meet certain requirements for which no recommended practices had been established, e.g. the provision of information on snow, slush and water conditions on the runway;

c) to discuss and agree upon certain arrangements to facilitate a transfer of responsibility in the operation of services within any given area from, for example, the military authorities to the civil authorities;

d) to discuss and agree upon measures of co-ordination not only in the implementation of the facilities, but also in the operation of certain services;

e) a gathering of Directors of Civil Aviation in any given area to discuss civil aviation matters of mutual concern.

III.   **STATUS OF CONCLUSIONS REACHED BY INFORMAL MEETINGS**

5.   As indicated in the directives established by Council, the reports of informal meetings have no official status and are therefore not subject to any formal action by ICAO. Any conclusions requiring action, including proposals for amendment of regional plans, should be the subject of correspondence to ICAO by the State or States whose representatives supported the conclusions, subsequent to the meeting. The agreements reached at the meeting merely constitute an understanding among the participants to undertake certain arrangements or action which should be taken by their respective governments to facilitate implementation of the approved regional plan.

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ICAO FAMILIARIZATION COURSE

REGIONAL AFFAIRS OFFICE

**SPECIAL ACTIVITIES OF THE ORGANIZATION
ON IMPLEMENTATION OF REGIONAL PLANS**

Lecture No. 7

DOCUMENTS FOR REFERENCE

Doc 7300/6 — *Convention on International Civil Aviation*

I.   **AUTHORITY AND OBJECTIVE**

1.   The gap that inevitably exists between what is implemented in the regional plans and that which is not, has been of continuing concern to the Organization and efforts have been made in many directions to increase the effectiveness of the work of the secretariat in assisting to close this gap. In the normal follow-up of the implementation of the regional plans, certain problems may require special action on the part of States and the Secretariat. Some of these special measures are defined in various articles of the Convention on International Civil Aviation, e.g. Articles 69, 70 and 71. Other special measures derive from the fundamental responsibility of the Regional Offices of encouraging and assisting States in the implementation of Regional Plans.

2.   Special measures which may be taken by the Organization to promote implementation are:

   a) convening of informal meetings;

   b) establishment of special implementation projects;

   c) use of bilateral or UNDP sponsored technical co-operation schemes;

   d) advice on negotiation of loans, establishment of operating agencies, levying of user charges, or joint support action.

The matter of convening informal meetings has been covered previously and technical co-operation is being dealt with in lectures prepared by the TCB. The present discussion covers the other special measures.

II.   **SPECIAL IMPLEMENTATION PROJECTS**

3.   Special implementation projects are intended to assist States in overcoming problems of implementation which may have significant adverse effects on the safety, regularity or efficiency of international civil aviation and which cannot be dealt with in the course of the routine activities of ICAO in assisting States. These projects may take the form of a team of experts in related fields, e.g. ATM, CNS and MET, carrying out visits to the major centres serving the trunk routes. The experts undertake a closely co-ordinated study of the services in all its aspects, including the organization, manning, equipment layout, working methods, maintenance procedures, etc. Special implementation projects may also be arranged for such other fields as AIS and AGA, particularly where problems are sufficiently extensive in a given area to justify the full-time employment of experts.

III.   **USER CHARGES**

4.   The Council has adopted the general principle that where aerodrome and route air navigation facilities and services are provided for international use, provision of such facilities and services may require the users to pay their share of the related costs. In accordance with this principle, Regional Offices provide advice to States on the application of user charges. Such advice, however, is based on the guiding principles established by the Council in the levying of airport and route facility charges of which the following are basic features.

   a) The proportion of costs allocable to various categories of users, including State aircraft, should be determined on an equitable basis, so that no users shall be burdened with costs not properly allocable to them according to sound accounting principles.

   b) In general, users should not be charged for facilities and services they do not use, other than those provided for and implemented under the Regional Plan.

   c) Any charging system should as far as possible be simple and suitable for general application on a regional basis.

   d) Charges should not be imposed in such a way as to discourage the use of facilities and services necessary for safety.

   e) The charges must be non-discriminatory both between foreign users and those of the State in which the facilities and services are located, and between the foreign users.

   f) When any significant review of existing charges or the imposition of new charges is contemplated by a provider of route air navigation facilities, the principal users should, so far as is possible, be given the opportunity to submit their views to and consult with the competent authority.

IV.   **USE OF OPERATING AGENCIES**

5.   Advice may also be provided to States by the Regional Offices on the use of operating agencies but such advice should not in any way detract from the policy that the decision as to whether charges should or should not be imposed is entirely the prerogative of each administration. Accordingly, the offices are guided by the following:

    a) that operating agencies can be fully financed by government funds;

    b) the responsibilities of each State under Article 28 of the Convention

    c) the need for the State to continue to provide funds for ground facilities and services; and

    d) that if charges are contemplated, the established ICAO principles should be applied,

6.   The formation and financing of operating agencies can be undertaken by the government, by the airlines that use the facilities and services concerned, or by a private operating agency specializing in the provision of air navigation services. The structure of an operating agency will obviously depend on the circumstances in any given country, but the following should be the basic features:

    a) It should have authority in clearly specified fields to carry out, on behalf of the government, the responsibilities accepted by the State under Article 28 of the Convention.

    b) It should provide reliable and efficient air navigation services on non-discriminatory terms to all users,

7.   When a State has decided in principle to apply the operating agency concept, it may be appropriate for it to request assistance under the UNDP in developing the detailed arrangements.

V.   **JOINT SUPPORT**

8.   International joint financing of air navigation facilities is resorted to only in areas where the required facilities and services bring no substantial benefit to the State having to provide them but are essential to international air navigation. Joint support action is therefore looked upon as a last resort after all other methods of obtaining implementation have failed. Any decision to apply for joint support is arrived at independently by the States concerned and the Regional Office does not normally initiate any advice to States in this regard.

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ICAO FAMILIARIZATION COURSE

REGIONAL AFFAIRS OFFICE

REGIONAL PLANNING AND IMPLEMENTATION GROUPS

Lecture No. 8

DOCUMENTS FOR REFERENCE

Nil

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1.   Regional planning groups (RPGs) to deal on a continuous basis with all elements of the air navigation plan have been established by the council for all ICAO regions except for North American (NAM) Region. The following RPGs were established pursuant to recommendations of regional air navigation (RAN) meetings: the North Atlantic Systems Planning Group (NAT SPG), in 1965; the European Air Navigation Planning Group (EANPG), in 1972; the Africa/Indian Ocean Planning and Implementation Regional Group (APIRG), in 1980 and the Caribbean/South America Regional Planning and Implementation Group (GREPECAS), in 1989. In addition, the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) was established in 1991 in light of the result of consultations with States in the Asia and Pacific Regions and the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG) was established in 1993 following similar consultations.

2.   Although the operational conditions in the NAT and EUR Regions are different, the main objectives of the NAT SPG and EANPG are generally the same, i.e. to ensure continuity in the planning process for the purpose of maintaining an up-to-date air navigation plan through systems evaluation and monitoring, and study in the light of changing traffic characteristics, operational requirements and technological advances. The current main objectives of the APIRG, GREPECAS, APANPIRG and MIDANPIRG, on the other hand, are to foster and co-ordinate implementation of the concerned regional air navigation plan(s) by States and to suggest changes thereto when necessary.

3.   In order to meet the above objectives, one of the primary functions of the Groups is to regularly review any shortcomings in the air navigation facilities and services of the related region(s) and develop recommendations for remedial action.

4.   Each Group is composed of Members from States which are located, or have territories located within the Region(s) concerned, ensuring a balanced representation of the Region(s) as a whole. Changes to the membership and/or size of a Group are subject to the approval by the Council. Moreover, arrangements have been made to ensure that all provider and user States are kept fully informed of the activities of a Group, in order that they may make their contributions, either through correspondence or through participation in the Group's meetings by invitation of a Group or on their own initiative, whenever a State considers that its interests are involved. International organizations recognized by the Council as

representing important civil aviation interests have the opportunity to participate in the work of a Group in a consulting capacity.

5.   A Group can create contributory bodies (sub-groups) charged with preparatory work on specific problems requiring expert advice for their resolution. The sub-group's composition is such that, while being kept as small as possible, all States (whether or not they are Members) and organizations likely to be able to make valid contributions are given the opportunity to participate in the sub-group. The work progress of sub-groups is subject to review by a Group.

6.   A Group is the guiding and co-ordinating organ for all activities conducted within ICAO concerning the Air Navigation field in the Region(s) concerned but does not assume authority vested in other ICAO bodies except where such bodies have specifically delegated authority to a Group. The Group's activities are subject to review by the Council.

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ICAO FAMILIARIZATION COURSE

REGIONAL AFFAIRS OFFICE

OVERVIEW OF THE GLOBAL ATM SYSTEM

Lecture No. 9

DOCUMENTS FOR REFERENCE

Global Air Navigation Plan for CNS/ATM Systems (Document 9750)
National Plan for CNS/ATM Systems – Guidance Material (Circular 278)
ATM Operational Concept (*WP/184 presented during ANConf/11*)

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1. **INTRODUCTION**

1.1   Every year more than a billion people board commercial aircraft secure in the knowledge that the aircraft will take them quickly and safely from their departure point to their destination. The process of getting an aircraft safely and efficiently to its destination depends on three functions: communication, navigation and surveillance. *Communication* is the exchange of voice and data information between the aircraft and air traffic services units. *Navigation* pinpoints the location of the aircraft, and *surveillance* combines communication and navigation information to facilitate continuous mapping of the relative positions of aircraft. ICAO calls the three functions the *CNS system* and regards them as forming the basic support services of air traffic management (ATM). While the functions are not new in aviation, both aircraft and their avionics have become more sophisticated. Rapidly improving satellite and digital technologies now make even more revolutionary advances possible.

1.2   In the early 1980s, it was recognized that the ever-increasing demand for air transportation services, the high cost of equipment and the need for increased efficiency while maintaining safety were beginning to stress the existing air navigation system to its limits. In response to this situation, ICAO established in 1983 the Special Committee on Future Air Navigation Systems (FANS) with the task of studying technical, operational, institutional and economic questions, including cost/benefit analysis relating to future air navigation systems, identifying and assessing new concepts and new technology, and making recommendations for a coordinated, evolutionary development of new air navigation system over a 25-year period.

2. **THE GLOBAL ATM SYSTEM**

2.1   The first task of the FANS Committee was to critically examine the present systems for their capabilities and potential and then decide if these could be modified or developed to meet both present and future needs. The committee concluded that the shortcomings of the present systems were due essentially to three factors:

     a) the propagation limitations of current line-of-sight systems and/or accuracy and reliability limitations imposed by the variability of propagation characteristics of other systems;

     b) the difficulty, for a variety of reasons, of implementing present CNS systems and of operating them in a consistent manner in large parts of the world; and

     c) the limitations of voice communications and the lack of digital air/ground data interchange systems to support automated systems in the air and on the ground.

2.2   The FANS Committee, which submitted its report in May 1988, determined that the limitations of the present systems are intrinsic to the systems themselves and thus the problems cannot be overcome on a global scale except by new concepts and new CNS systems which will in turn support future ATM systems. It concluded that the exploitation of satellite technology is the only viable solution that will overcome present limitations and meet future needs on a cost-effective basis on a global scale. The committee, however, recognized that some line-of-sight systems would continue to be appropriate where their propagation limitations were not a problem, e.g. the use of very high frequency (VHF) communications and secondary surveillance radar (SSR) Mode S in terminal areas. Thus, the FANS concept — designated as the *CNS/ATM systems concept* — is a mix of satellite technology and the line-of-sight systems to achieve overall optimum results.

2.3   Since the FANS Committees completed their work, several States and all ICAO regions embarked on ATM implementation programmes intended to improve aviation operations by making use of CNS/ATM technologies. However, it was later recognized that technology was not an end in itself, and that a comprehensive concept of an integrated and global ATM system, based on clearly-established operational requirements, was needed. This concept, in turn, would form the basis for the co-ordinated implementation of CNS/ATM technologies based on clearly-established requirements. Consequently, ICAO developed this ATM operational concept , which was endorsed by ICAO's Eleventh Air Navigation Conference held in Montreal, Canada from 22 September to 3 October 2003.

2.4   The ATM operational concept is intended to guide the implementation of CNS/ATM Systems by providing a description of how the emerging and future ATM system should operate. This, in turn, will assist the aviation community for transition from the air traffic control environment of the 20th century to the integrated and collaborative air traffic management system needed to meet aviation's needs in the 21st century. This effort should be seen as the next step in an evolutionary process that began with the FANS concept — CNS/ATM systems — to the goal of an integrated global ATM system.

2.5   A Global ATM system can be understood as a worldwide ATM system which facilitates interoperability of different technologies, accommodates different procedures and provides seamlessness across States/ regions leading to harmonized air traffic services. This is achieved through progressive, cost effective and cooperative implementation of CNS/ATM system by all States/Regions worldwide.

3.   **COMMUNICATION**

3.1   According to the CNS/ATM systems concept, both voice and data communication with aircraft in oceanic and remote continental airspaces would be by direct satellite-aircraft link operating in the frequency band exclusively allocated to the aeronautical satellite service (1 545 to 1 555 MHz and 1 646.5 to 1 656.5 MHz) and by (HF) data link. In terminal areas and where line-of-sight limitations are not

a problem, VHF voice and data and SSR Mode S data link would be used. The communication system architecture provides for a range of capabilities from basic, low-speed data to high-speed data and voice.
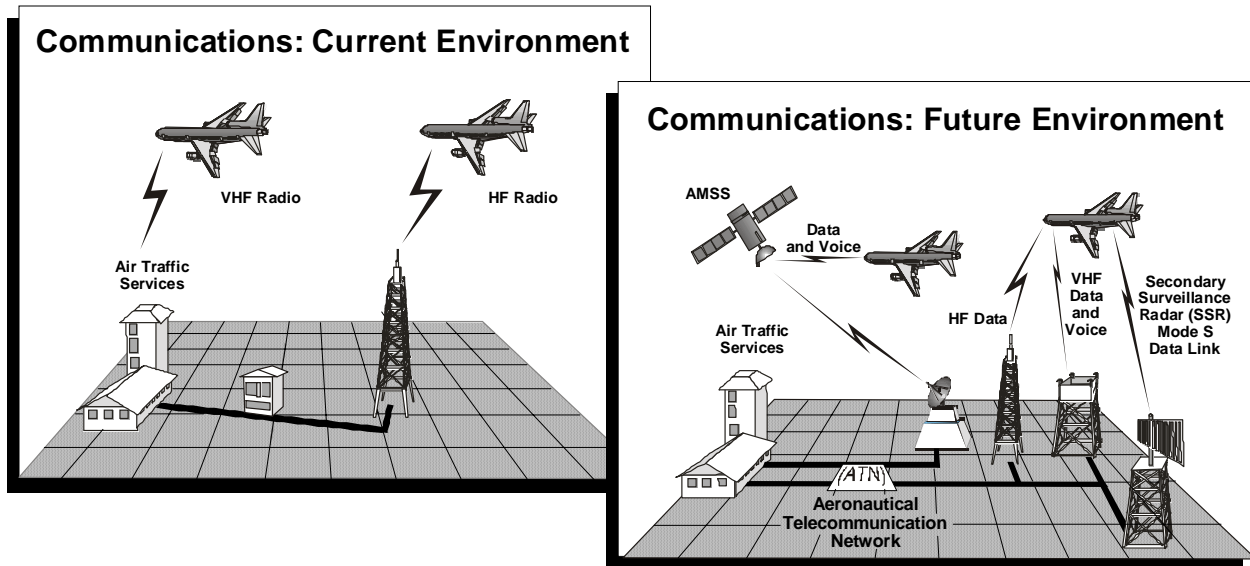

Communications – Summary

It is expected that communications with aircraft will increasingly be by means of data. This will allow more direct and efficient linkages between ground and aircraft systems. ICAO has developed a communication systems architecture that provides a range of capabilities to suit the needs of air traffic services providers and their users, from basic, low-speed data to high-speed data and voice. Various data communications media (e.g. AMSS, HF data link, VHF data link, Mode S data link) will be integrated through aeronautical telecommunication network (ATN). Although VHF voice continues to be employed, the technology will be that of digital radios instead of present analog radios.

4.   **NAVIGATION**

4.1   For navigation, the CNS/ATM systems concept recognizes the capabilities and flexibility of satellite navigation systems. To overcome the difficulties of selecting among competing navigation systems, to eliminate the need to specify what airborne navigation equipment is required, and to allow for more flexible route systems and area navigation (RNAV) environments, the concept of required navigation performance (RNP) has been developed. The global navigation satellite systems (GNSS), which comprises of GPS satellite constellation of United States, GLONASS constellation of Russian Federation and proposed Galileo constellation of European Union, in conjunction with appropriate augmentation systems would evolve into sole means of navigation for oceanic/remote areas, en-route continental, non-precision approach and for precision approach and landing operations.

Navigation: Current Environment

Navigation: Future Environment
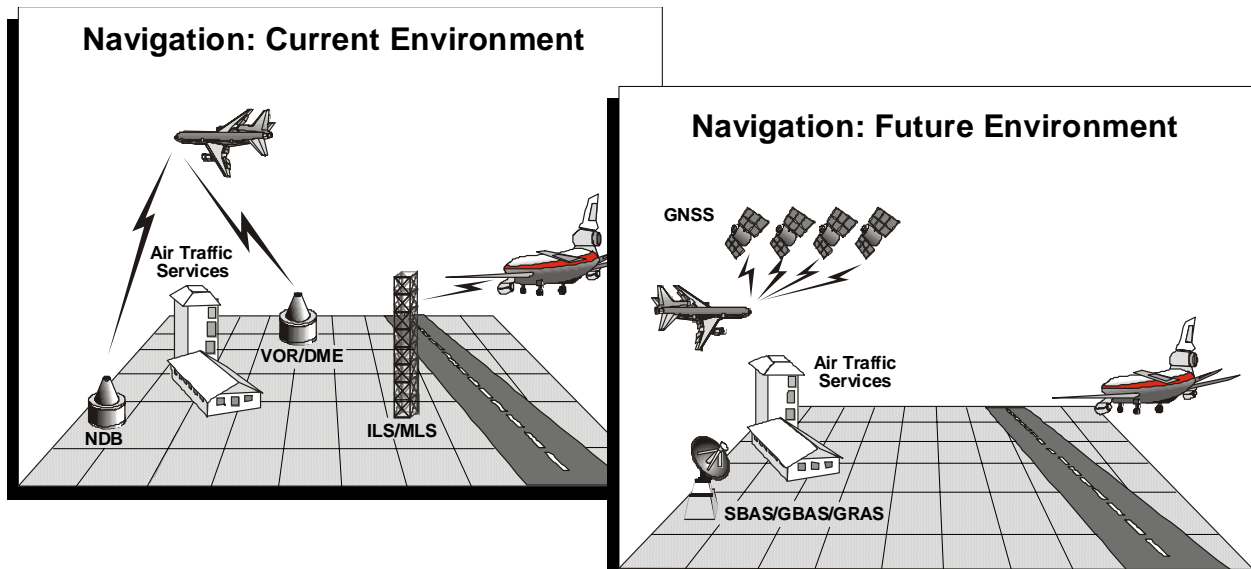
Navigation – Summary

ICAO has developed the concept of required navigation performance. This concept defines the capability necessary for an aircraft to navigate in a particular airspace and allows the aircraft operator the choice of the specific equipment to achieve that capability. The required capability could be provided by the GNSS currently being deployed. GNSS comprising of satellite constellations, appropriate augmentation systems and aircraft receivers, will be able to provide a high-integrity, highly accurate navigation service, suitable for sole means navigation for en-route, terminal and non-precision approach and landing operations.

5.   **SURVEILLANCE**

5.1   For surveillance, the concept of automatic dependent surveillance has been developed, where the aircraft automatically transmits its position and other relevant data via satellite or other communication link to the air traffic control (ATC) centre. The aircraft position can then be displayed in a manner similar to present radar displays. An important feature of ADS, also called as automatic dependent surveillance-Contract, (ADS-C) is that not only is the aircraft position transmitted to the ATC centre, but additional information such as aircraft heading, speed, way-points, etc. is also transmitted. The ADS-C could also be categorized as automatic dependent surveillance-addressed (ADS-A).The SSR, augmented with improved antennas and selective addressing(Mode S), will continue to be used in terminal and high-density airspace. Further to ADS-A or/ADS-C, ICAO is currently developing a new surveillance application designated as automatic dependent surveillance-broadcast (ADS-B). The ADS-B involves the transmission of parameters, such as position and identification, via a broadcast mode data link for use by any air and/or ground users requiring it. This capability will permit enhanced airborne and ground situational awareness to provide for specific surveillance functions and cooperative pilot-controller and pilot -pilot ATM. It has the potential to complement SSR or even replace SSR for low to medium traffic density. The use of ADS-B for collision avoidance has also been envisioned.

Surveillance: Current Environment

Surveillance: Future Environment
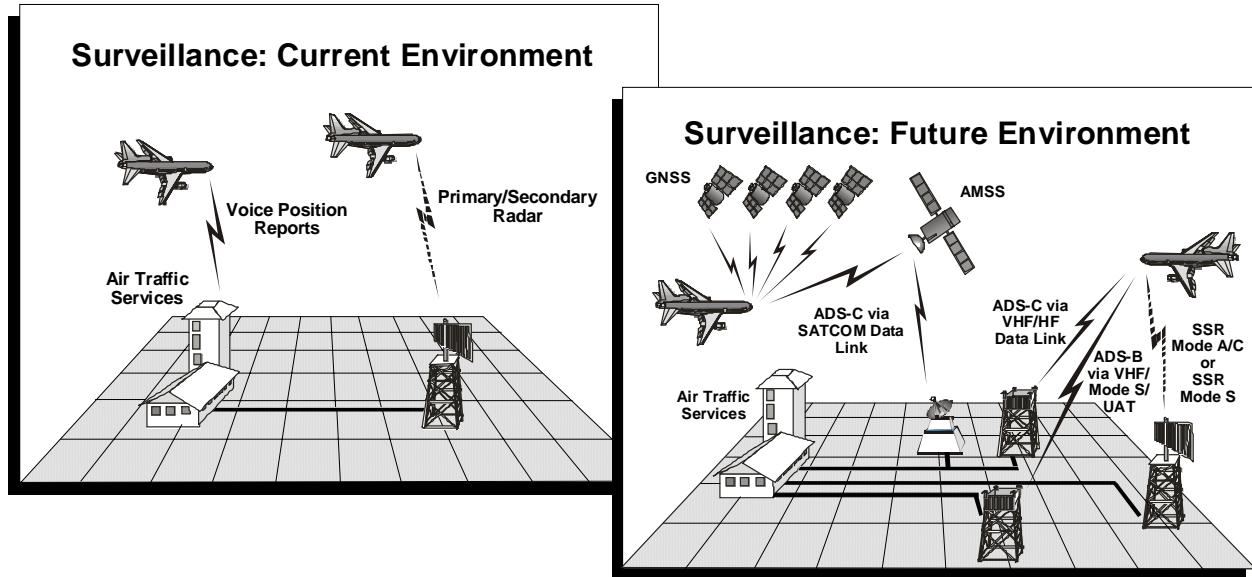
Surveillance – Summary

With ADS (also known as ADS-A or ADS-C), an aircraft automatically transmits its position and other relevant data, such as aircraft intent, speed and weather to the air traffic control(ATC) centre via various data communications media (e.g. AMSS, HF data link, VHF data link, Mode S data link). The aircraft position can then be displayed in a manner similar to that of present radar displays. This service is intended initially for oceanic operations, remote land areas, and areas where primary and secondary radar cannot be justified economically. With regard to ADS-B, it involves the transmission of parameters, such as position and identification, via a broadcast mode data link (such as SSR Mode S Extended squitter or VHF digital link Mode 4 or Universal Access transreceiver) for use by any aircraft/ ATC/ ground vehicles.

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6.   **AIR TRAFFIC MANAGEMENT (ATM)**

6.1   Air traffic management is the dynamic, integrated management of air traffic and airspace — safely, economically, and efficiently — through the provision of facilities and seamless services in collaboration with all parties.The primary objective of ATM is to expedite and maintain a safe and orderly flow of air traffic during all phases of operation. ATM consists of a ground component and an air component, both of which must be closely integrated through well-defined procedures. ATM must also give due consideration to the cost of implementing both the air and the ground components, as well as the ability to meet the needs of users with minimum constraints and without compromising agreed levels of safety. The system must be designed to accommodate current normal peak traffic demands and anticipated future growth. The demands of growth in aviation require considerable increases in the efficiency of the system, both in airport and airspace capacity; otherwise, there will be a dramatic increase in congestion.

6.2   The envisaged ATM system will consist of three sub-elements, which are: air space management (ASM); air traffic services (ATS); and air traffic flow management (ATFM). These sub-elements will evolve and take on different roles, mainly because they will integrate into a total system. Rather than viewing ground and air as separate functions, the ATM-related aspects of flight operations will be fully integrated as a functional part of the ATM system. Ultimately, this interoperability and functional integration into a total system will yield a synergy of operations that does not currently exist. Through the use of a data link for data interchange between the elements of the ATM system, the functional integration can be accomplished.

6.3   The ASM comprises of developing and maintaining air route structure, flexible use of airspace and ensuring optimized sectorization. The main objectives of ATS are to prevent aircraft collisions, both with other aircraft and with obstructions, and to expedite and maintain an orderly flow of air traffic. The ATS includes flight information service, alerting service and air traffic control service (ATC). Although the future ATS systems should be designed to accommodate normal peak traffic demand with the capability of expanding to meet forecasted future growth, it may not be practicable to provide the systems which are capable at all times of accommodating excessive peak levels of air traffic demand. The answer for this is ATFM, which is a service complementary to ATS; The objective of ATFM is to ensure an optimum flow of air traffic through areas during times when demand exceeds or is expected to exceed the available ATC capacity.

7.   **BENEFITS**

7.1   It is envisaged that the improvements in the communication systems would result in increased data handling and transfer of information between operators, aircraft and ATS units. Satellite navigation, apart from enhancing navigation accuracy, provides global coverage. The surveillance systems will now be available in any part of the world through ADS technologies. In terms of ATM, the benefits are derived for all members of the civil aviation community. From an airspace user perspective, greater equity in airspace access, greater access to timely and meaningful information for decision support and more autonomy in decision-making including conflict management, will provide the opportunity to better deliver business and individual outcomes, within an appropriate safety framework.From a service provider perspective, including that of airport operators the ability to operate within an information-rich environment, with real-time data, as well as system trend and predictive data, fused with a range of automated decision-support or decision-making tools, will enable optimization of services to airspace users. From a regulator perspective, safety systems will be robust and open, allowing safety not only to be more easily measured and monitored, but also compared and integrated on a global basis not for its own sake, but as a platform for continuous improvement. Furthermore, the Global ATM system through the CNS/ATM technologies would lead to safety, economic passenger and environmental benefits.

8.   **PLANNING AND IMPLEMENTATION**

8.1   The vision of the world civil aviation community and that of ICAO is to achieve an integrated global air traffic management (ATM) system through the implementation of air navigation systems including communications, navigation and surveillance/air traffic management (CNS/ATM) systems in a progressive, cost-effective and cooperative manner. To facilitate the realization of this vision, ICAO has significantly progressed the development of material for the planning and implementation of CNS/ATM systems at global, regional, subregional and national levels.

8.2   At the strategic level, the ATM operational concept provides a global framework for the implementation of CNS/ATM systems. In addition, the *Global Air Navigation Plan for CNS/ATM Systems* (Doc 9750) is used as the basis for planning and for considering implementation options, taking into account external constraints such as environmental issues, financial challenges, legal aspects and organizational matters that are described in the document.

8.3   The regional planning and implementation process is the principal engine of ICAO's work on air navigation systems encompassing all related issues with a focus on achieving highest flight safety standards. It is here that the top-down approach comprising global guidance and regional harmonization measures converge with the bottom-up approach constituted by national planning by States. The development of regional plans for CNS/ATM systems is undertaken by ICAO's seven planning and implementation regional groups (PIRGs) with the assistance of ICAO's regional offices – located in

Bangkok, Cairo, Dakar, Lima, Mexico, Nairobi and Paris – and in coordination with the Regional Affairs Office at Headquarters. The seven PIRGs are: APANPIRG (ASIA/PAC Air Navigation Planning and Implementation Regional Group), APIRG (Africa-Indian Ocean Planning and Implementation Regional Group), EANPG (European Air Navigation Planning Group), GREPECAS (CAR/SAM Planning and Implementation Regional Group), MIDANPIRG (Middle East Air Navigation Planning and Implementation Regional Group), NAMPG (North American Planning Group) and NATSPG (North Atlantic Systems Planning Group). These plans are at different stages of development and, when they gain maturity, will be integrated into the more comprehensive regional air navigation plans (ANPs), which are currently being converted to a new format comprising a basic ANP and a Facilities and Services Implementation Document (FASID).

8.4   The implementation of CNS/ATM systems calls for a multinational approach in order to realize a cost-effective and integrated solution. In keeping with this spirit, subregional groups are being encouraged and provided assistance to foster harmonized and cooperative implementation of CNS/ATM systems. In terms of establishing the infrastructure for CNS/ATM systems, States – in cooperation with the users – have been developing their national plans in harmony with the regional plan by using ICAO's *National Plan for CNS/ATM Systems – Guidance Material* (Circular 278).

8.5   As the formulation of regional, subregional and national plans for CNS/ATM systems is progressively gaining maturity and at the same time States/aircraft operators are investing in the enabling technologies to gain early benefits, there is a need to address further steps that would face the challenge of the integration, interoperability and harmonization of the systems. To support this process, the current interregional mechanism has been enlarged through meetings of Regional Directors and specifically focused meetings of neighbouring States of two or more regions. Further, to facilitate global coordination and harmonization in the implementation of new technologies, and to develop a very close link between the ICAO implementation mechanism and other partners, the ALLPIRG/Advisory Group was established by the ICAO Council in 1996. The group meets periodically at ICAO Headquarters in Montreal.

8.6   In any such transition timetable, there will be a period when the CNS/ATM systems and the existing system are operating in parallel. While this period allows for aircraft operators to change their equipment, maintaining two systems is very costly. Consultation with all CNS/ATM partners will be needed to minimize the costs of transition.

9.   **GLOBAL COORDINATION**

9.1   The integrated Global ATM System, as endorsed by the Eleventh Air Navigation Conference in 2003 and approved by the 35th Session of the Assembly in 2004, will overcome the limitations of existing air navigation systems and meet the needs of civil aviation well into the 21st Century through the provision of CNS and ATM services on a global scale. The largely satellite-based systems will offer worldwide improvements in efficiency by better utilizing scarce and expensive resources: aircraft, airspace, airports and aeronautical frequency spectrum. Because the benefits of the new system are so obvious, there will undoubtedly be cooperation on an unprecedented level throughout the aviation industry, nationally and internationally, to effect the transition. ICAO is involved in this major effort to further improve efficiency and maintain or improve the present level of safety.

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