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## **ASSEMBLY — 36TH SESSION**

### **REPORT OF THE TECHNICAL COMMISSION ON AGENDA ITEMS 32 AND 36**

(Presented by the Chairman of the Technical Commission)

The attached report on Agenda Items 32 and 36 has been approved by the Technical Commission. Resolution 36/1 is recommended for adoption by the Plenary.

**Agenda Item 32: Development of an up-to-date consolidated statement of continuing ICAO policies and practices related to a global ATM system and communications, navigation and surveillance/air traffic management (CNS/ATM) systems**

32.1 The Technical Commission noted from WP/133 that the Council proposed no modifications to the existing consolidated statement of continuing ICAO policies and practices related to a global ATM system and communications, navigation and surveillance/air traffic management (CNS/ATM) systems (Resolution A35-15).

32.2 The Commission considered A36-WP/114, presented by CANSO, on the institutional hurdles to implement the ICAO Global ATM Operational Concept and the premise that realizing the vision of an integrated, harmonized and globally interoperable air navigation system was more of an institutional rather than operational/technical challenge. The paper stated that strong political leadership and commitment from States were needed to overcome the resulting fragmentation of ATM, turning toward the integrated, harmonized system envisioned by ICAO and proposed an amendment to Assembly Resolution A35-15 to reflect these views. There was no support for the proposal by CANSO.

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**Agenda Item 36: Development of an up-to-date consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation**

36.1 The Technical Commission reviewed the consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation (Resolution A35-14 and Appendices A to W) and modifications proposed thereto as presented in A35-WP/133.

36.2 With respect to the proposed amendments to Resolving Clauses 3 and 4 of Appendix A to Resolution A35-14, several concerns were expressed by a Contracting State relating to the removal of the text “any technical specification necessary to achieve these requirements shall be appendices to Annexes”; to the placement of supporting technical specifications in separate documents; and to the legal validity of the procedure whereby Council would have to approve material developed by other standards-making organizations as meeting ICAO requirements. The delegate proposed that Appendix A to Resolution A35-14 remain unchanged in light of the information provided to the Technical Commission in Addendum Number 1 to WP/63 presented by the Council of ICAO under Agenda item 25.

36.3 The Technical Commission also considered A36-WP/139 presented by the Russian Federation, which contained a proposal to develop a mechanism which would allow the Council to effectively monitor the readiness of Contracting States to implement amendments to SARPs and PANS. The Commission recognized the difficulties associated with implementation of some SARPs and agreed, therefore, to urge the Council to take such difficulties into account when establishing the applicability dates of amendments to Annexes.

36.4 The Technical Commission also noted information provided in WP/152 from India concerning the implementation status of CNS/ATM systems in India and in WP/303 from the United States concerning civil military cooperation.

36.5 The Commission, in applying the procedures and principles recommended by the Council, agreed that amendments were needed to Appendices A, C, D, K, L and P for the following reasons:

- a) Appendix A, Resolving Clauses 3 and 4: to reflect the change towards developing performance based SARPs and to give more strength to outside Standards-making organizations and utilizing their work within the ICAO framework, thus avoiding duplication of work.
- b) Appendix C, Resolving Clause 2 and new Resolving Clause 4: to reflect that ANC panel work programmes should be in line with the ICAO Business Plan, to gain support for changing the way that panels work, to reduce the overall activity of panels and to refocus the Secretariat more on implementation of Standards and less on Standards-making.
- c) Appendix D, Resolving Clause 2, new Resolving Clause 3 and associated practice 3: to include the need to identify the reasons why SARPs are not implemented and to

indicate alternative means of compliance. Such information would be an important contribution to ICAO's data collection and analysis efforts.

- d) Appendix K (renumbered as Appendix J), preambular clauses and new associated practices 1 and 5: to reflect that the planning of facilities and services now centres on the Global ATM Operational Concept and the Global Air Navigation Plan, that regional plans should support a performance-based approach to planning, and to support the regional planning process with automation.
- e) Appendix L (renumbered as Appendix K), new preambular clause, Resolving Clause 1 and associated practice 2: to signal that regional air navigation meetings are no longer the principal means of reviewing and revising Regional Plans. The regional planning process is now normally conducted through the Planning and Implementation Regional Groups (PIRGs). RAN meetings would be convened only to address issues which cannot be adequately addressed through PIRGs and should be very focussed. Efforts should be directed towards greater integration of global and regional work (Headquarters and Regional Offices).
- f) Appendix P (renumbered as Appendix O), two new preambular clauses, new Resolving Clause 3: military activity accounts for a large segment of global airspace. ICAO should obtain a mandate to facilitate civil/military agreements. The amendments also take account of the new provisions of the ATM Operational Concept which was endorsed by the Eleventh Air Navigation Conference.

36.6 The Technical Commission also agreed that Appendix I should be deleted, for the reason that a new resolution was being proposed to support the further evolution, beyond CNS/ATM, towards a Global Air Traffic Management System and greater integration of Next Generation Air Transport System (NextGen) and Single European Sky ATM Research (SESAR) Programme as part of a global system.

36.7 The Technical Commission submits for adoption by the Plenary Resolution 36/1 and Appendices A through W inclusive which, in accordance with standing practice, supersedes Resolution A34-15, Appendices A through X inclusive.

**Resolution 36/1: Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation**

*Whereas* in Resolution A15-9 the Assembly resolved to adopt in each session for which a Technical Commission is established a consolidated statement of continuing policies related specifically to air navigation up to date as at the end of that session;

*Whereas* a statement of continuing policies and associated practices related specifically to air navigation as they existed at the end of the 35th Session of the Assembly was adopted by the Assembly in Resolution A35-14, Appendices A to X inclusive;

*Whereas* the Assembly has reviewed proposals by the Council for the amendment of the statement of continuing policies and associated practices in Resolution A35-14, Appendices A to X inclusive, and has amended the statement to reflect the decisions taken during the 36th Session; and

*Whereas* the statement of continuing policies in Resolution A35-14 is hereby superseded;

*The Assembly:*

1. *Resolves* that:
  - a) the Appendices attached to this resolution constitute the consolidated statement of continuing air navigation policies and associated practices of the Organization as they exist at the close of the 36th Session of the Assembly; and
  - b) the practices associated with the individual policies in the appendices constitute guidance intended to facilitate and ensure implementation of the respective policies; and
2. *Declares* that this resolution supersedes Resolution A35-14 with its Appendices A to X inclusive.

#### **APPENDIX A**

##### **Formulation of Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS)**

*Whereas* Article 37 of the *Convention on International Civil Aviation* requires the Organization to adopt and amend international Standards and Recommended Practices and Procedures and states the purpose of and the matters to be dealt with in that action, and Articles 38, 54, 57 and 90 contain additional relevant provisions;

*Whereas* the Assembly deems it advisable to establish certain policies to be followed in complying with these provisions of the Convention; and

*Whereas* the terms “Standard” and “Recommended Practice” have the following meanings:

- a) *Standard* — any specification for physical characteristics, configuration, matériel, performance, personnel or procedure, the uniform application of which is recognized as necessary for the safety or regularity of international air navigation and to which Contracting States will conform in accordance with the Convention; in the event of impossibility of compliance, notification to the Council is compulsory under Article 38 of the Convention; and
- b) *Recommended Practice* — any specification for physical characteristics, configuration, matériel, performance, personnel or procedure, the uniform application of which is recognized as desirable in the interest of safety, regularity or efficiency of international air navigation and to which Contracting States will endeavour to conform in accordance with the Convention;

*The Assembly resolves* that:

1. SARPs and PANS shall be amended as necessary to reflect changing requirements and techniques and thus, inter alia, to provide a sound basis for regional planning and the provision of facilities and services;

2. subject to the foregoing clause, a high degree of stability in SARPs shall be maintained to enable the Contracting States to maintain stability in their national regulations. To this end amendments shall be limited to those significant to safety, regularity and efficiency, and editorial amendments shall be made only if essential;
3. SARPs and PANS shall be drafted in clear, simple and concise language. SARPs shall consist of broad, mature and stable provisions specifying functional and performance requirements that provide for the requisite levels of safety, efficiency and interoperability. Supporting technical specifications, when developed by ICAO, shall be placed in separate documents to the extent possible;
4. in the development of SARPs, procedures and guidance material, ICAO should utilize, to the maximum extent appropriate and subject to the adequacy of a verification and validation process, the work of other recognized standards-making organizations. Material developed by these other standards-making organizations may be deemed appropriate by the Council as meeting ICAO requirements; in this case such material should be referenced in ICAO documentation;
5. to the extent consistent with the requirements of safety and regularity, Standards specifying the provision of facilities and services shall reflect a proper balance between the operational requirements for such facilities and services and the economic implications of providing them;
6. Contracting States shall be consulted on proposals for the amendment of SARPs and PANS before the Council acts on them, except when the Council may deem urgent action to be necessary. Furthermore, subject to the adequacy of the verification and validation process, technical specifications may be acted upon by the Council without consultation with States. Such material shall however be made available to States upon request;
7. the applicability dates of amendments to SARPs and PANS shall be so established as to allow the Contracting States sufficient time for their implementation; and
8. unless exceptional circumstances dictate otherwise, the applicability dates of amendments to Annexes and PANS shall be so established as to avoid the need for Contracting States to amend their national regulations more often than twice per calendar year. In the application of the foregoing, whenever practicable, any one Annex or PANS document shall not be amended more frequently than once per calendar year.

#### **Associated practices**

1. The Council should ensure that provisions of SARPs and PANS are completely consistent with each other. Furthermore, the Council should endeavour to improve the processing, presentation and usefulness of ICAO documents containing SARPs, PANS and other related provisions, especially for complex systems and their associated applications. To that end the Council should promote the development and upkeep of broad system-level, functional and performance requirements. The Council should continue seeking the most appropriate means of development, processing and dissemination of technical specifications.
2. Contracting States should comment fully and in detail on the proposals for amendment of SARPs and PANS or at least should express their agreement or disagreement on their substance. They should be

allowed at least three months for this purpose. Furthermore, Contracting States should receive at least thirty days of notification of the intended approval or adoption of detailed material on which they are not consulted.

3. Contracting States should be allowed a full three months for notifying disapproval of adopted SARPs amendments; in establishing a date for notifying disapproval the Council should take into account the time needed for transmission of the adopted amendments and for receipt of notifications from States.

4. In the application of the provision in Resolving Clause 8 above, the Council should ensure that, whenever practicable, the interval between successive common applicability dates of amendments to Annexes and PANS is at least six months.

## **APPENDIX B**

### **Air navigation meetings of worldwide scope**

*Whereas* the holding of worldwide air navigation meetings is an important function of ICAO and entails substantial expenditures of effort and money by the Contracting States and the Organization; and

*Whereas* it is necessary to ensure that maximum benefit is obtained from these meetings without imposing any undue burden upon the Contracting States or the Organization;

*The Assembly resolves that:*

1. meetings, convened by the Council, in which all Contracting States may participate on an equal basis shall be the principal means of progressing the resolution of problems of worldwide import, including the development of amendments to the Annexes and other basic documents in the air navigation field;

2. such meetings shall be convened only when justified by the number and importance of the problems to be dealt with and when there is the likelihood of constructive action on them; meetings convened on this basis may also be requested to conduct exploratory discussions on matters not mature for definite action;

3. the organization of such meetings shall be arranged so that they are best suited to carry out the assigned task and to provide proper coordination among the technical specialities involved; and

4. unless necessitated by extraordinary circumstances, not more than two such meetings shall be convened in a calendar year, and successive meetings dealing extensively with the same technical speciality shall be separated by at least twelve months.

### **Associated practices**

1. Before deciding to refer a matter to a worldwide meeting, the Council should consider whether correspondence with States or use of machinery such as panels or air navigation study groups could dispose of it or facilitate subsequent action on it by a future meeting.
2. The agenda should be sufficiently explicit to define the task to be performed and to indicate the types of specialized expertise that will be needed at the meeting. In an agenda including more than one technical specialty the types of expertise called for should be kept to the minimum compatible with efficiency.
3. To facilitate the participation of all Contracting States, the Council should so plan the meeting programme as to keep to the minimum, consistent with efficiency, the demands upon the time of States' technical officials.
4. The planned duration of a meeting should allow adequate time for completion of the agenda, study of the report as drafted in the working languages of the meeting and approval of the report. Following the meeting, the Secretariat should make any necessary minor editorial amendments and typographical corrections to the meeting report.
5. The approved agenda and the main supporting documentation should be dispatched, normally by air, not less than ten months in advance of the convening date in the case of the agenda and not less than three months in the case of the main supporting documentation; other documentation should be dispatched as soon as possible.

## **APPENDIX C**

### **Panels of the Air Navigation Commission (ANC)**

*Whereas* panels of the Air Navigation Commission have proved a valuable medium for advancing the solution of specialized technical problems; and

*Whereas* it is necessary to ensure that maximum benefit is obtained from Air Navigation Commission panels without imposing any undue burden upon the Contracting States or the Organization;

*The Assembly resolves that:*

1. panels of the Air Navigation Commission shall be established when it is necessary to advance the solution of specialized technical problems which cannot be solved adequately or expeditiously by the Air Navigation Commission through other established facilities;
2. the terms of reference and the work programmes of panels shall support the ICAO Business Plan, be clear and concise with timelines and shall be adhered to;
3. the progress of panels of the Air Navigation Commission shall be reviewed periodically and panels shall be terminated as soon as the task assigned to them has been accomplished. A panel shall be



allowed to continue in existence for more than four years only if its continuation is considered justified by the Air Navigation Commission; and

4. panel activity shall support a performance-based approach to SARPs development to the extent possible.

#### **Associated practice**

Reports should be clearly presented as the advice of a group of experts to the Air Navigation Commission so that they cannot be construed as representing the views of Contracting States.

### **APPENDIX D**

#### **Implementation of Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS)**

*Whereas* Article 37 of the *Convention on International Civil Aviation* requires each Contracting State to collaborate in securing the highest practicable degree of uniformity in regulations and practices in all matters in which such uniformity will facilitate and improve air navigation;

*Whereas* in accordance with Article 38 of the Convention any Contracting State which finds it impractical to comply in all respects with any international standard or procedure and deems it necessary to adopt regulations or practices differing there from is obliged to give immediate notification to ICAO; and

*Whereas* it is important that all available means of the Organization be employed in encouraging and assisting Contracting States in overcoming their difficulties in implementation of SARPs and PANS;

*The Assembly resolves that:*

1. Contracting States shall be encouraged and assisted in the implementation of SARPs and PANS by all available means;
2. the differences between the regulations and the practices of Contracting States and the SARPs and PANS shall be monitored by the Council with the aim of encouraging the elimination of those differences that are important for the safety and regularity of international air navigation or are inconsistent with the objectives of the international Standards; and
3. the Council shall analyse the root cause for non-implementation and take appropriate action.

#### **Associated practices**

1. In encouraging and assisting Contracting States in the application of SARPs and PANS the Council should make use of all existing means including the resources of Headquarters, the ICAO Regional Offices and the United Nations Development Programme.

2. Contracting States should continue, and where necessary should intensify, their efforts to apply at their operating installations practices and procedures that are in accordance with the current SARPs and

PANS. In this regard, Contracting States should consider the practicability of modifying the internal processes by which they give effect to the provisions of SARPs and PANS, if such modifications would expedite or simplify the processes or make them more effective.

3. The Council should urge Contracting States to notify the Organization of any differences that exist between their national regulations and practices and the provisions of SARPs as well as the date or dates by which they will comply with the SARPs. If a Contracting State finds itself unable to comply with any SARPs, it should inform ICAO of the reason for non-implementation, including any applicable national regulations and practices which are different in character or in principle. The notifications of differences from SARPs received should be promptly issued in supplements to the relevant Annexes. Contracting States should also be requested to publish in their AIPs any significant differences from the SARPs and PANS.

4. In the monitoring of the differences from SARPs and PANS, the Council should request reports from Contracting States that have not or have incompletely reported to the Organization the implementation of SARPs. Furthermore, the Council should also request Contracting States that have not published in their AIPs information on the implementation of SARPs and PANS to publish it.

## APPENDIX E

### ICAO technical manuals and circulars

*Whereas* up-to-date technical guidance material made available through ICAO provides extremely valuable assistance to administrations in the planning for implementation of Standards and Recommended Practices, Procedures for Air Navigation Services and Regional Plans;

*Whereas* it is equally important to provide for the availability of appropriate technical guidance for the training of staff and the updating of the knowledge of operating personnel, as warranted by advancing technology, thus improving the quality of service and enhancing the level of safety in air operations;

*Whereas* no satisfactory alternative exists for the provision of such guidance material on an international level other than under the aegis of ICAO; and

*Whereas* the maintenance of existing ICAO manuals and the development of new manuals and circulars, as appropriate, is a major task in terms of both technical and administrative personnel requirements, involving conflicting priorities and requiring special measures related to Secretariat capacity and publication practices;

*The Assembly resolves* that priority shall be provided for the continuing updating of the contents of present ICAO technical manuals and the development of additional guidance material as warranted by advancing technology, thus ensuring optimum value for Contracting States in their implementation of Standards, Recommended Practices and Procedures for Air Navigation Services as well as planning for and implementation of facilities and services.

### **Associated practices**

1. The Council, taking into account the requirement to improve still further existing safety levels, should keep under review the ICAO technical manuals and circulars programme so as to ensure that all appropriate technical fields are adequately covered by the necessary guidance material.
2. The Council should seek means by which appropriate technical manuals and circulars can be produced and published without undue delay and without competing with priorities in the production of routine publications.

## **APPENDIX F**

### **Units of measurement**

*Whereas* in the interest of safety of international air and ground operations, unification of units of measurement should be achieved;

*Whereas* it is important that standard units of measurement are used in a uniform manner in ICAO air navigation publications; and

*Whereas* Annex 5, Fourth Edition, specifies the use of a standardized system of units of measurement in international civil aviation air and ground operations based on the International System of Units (SI) but permits the use of certain non-SI units on a permanent basis and others on a temporary basis;

*The Assembly resolves that:*

1. Contracting States shall be encouraged to bring their national regulations and practices into conformity with the provisions of Annex 5 as soon as practicable; and
2. in all ICAO air navigation publications the units of measurement shall be expressed in the units specified in Annex 5 where appropriate units exist therein.

## **APPENDIX G**

### **Certificates of airworthiness, certificates of competency and licences of flight crews**

*Whereas* Article 33 of the Convention does not explicitly define the purposes for which recognition is to be accorded to certificates and licences;

*Whereas* several interpretations exist as to whether or not there is any obligation on Contracting States to recognize certificates and licences issued or rendered valid by other Contracting States pending the coming into force of SARPs applicable to the aircraft or airmen involved; and

*Whereas* with respect to certain categories of aircraft or classes of airmen, it may be many years before SARPs come into force or it may be found most practicable not to adopt SARPs for some categories or classes;

*The Assembly resolves that:*

1. certificates of airworthiness and certificates of competency and licences of the crew of an aircraft issued or rendered valid by Contracting State in which the aircraft is registered shall be recognized as valid by other Contracting States for the purpose of flight over their territories, including landings and take-offs, subject to the provisions of Articles 32 (b) and 33 of the Convention; and
2. pending the coming into force of international Standards respecting particular categories, classes or types of aircraft or classes of airmen, certificates and licences issued or rendered valid, under national regulations, by the Contracting State in which the aircraft is registered shall be recognized by other Contracting States for the purpose of flight over their territories, including landings and take-offs.

## **APPENDIX H**

### **Aviation training**

*Whereas* satisfactory provision and operation of ground facilities and services and implementation of SARPs and PANS are dependent upon a high standard of personnel training;

*Whereas* difficulties are being experienced by Contracting States in these matters owing to a lack of adequately trained personnel;

*Whereas* special effort is required to foster a high standard of personnel training and to assist Contracting States in meeting their training needs; and

*Whereas* training seminars conducted by the Organization are an effective means of promoting common understanding and uniform application of SARPs and PANS;

*The Assembly resolves that:*

1. Contracting States shall be encouraged and assisted in the maintenance of high standards of training of aviation personnel and particularly those employed in the provision and operation of services and facilities for international air navigation. To this end, as a part of its regular work programme, the Organization shall carry out a continuing training programme which is referred to as the ICAO aviation training programme\*; and
2. the ICAO aviation training programme shall be governed by the following principles:
  - a) aviation training is the responsibility of Contracting States;
  - b) the Organization should place the highest priority on the establishment of safety-and security-related programmes;
  - c) mutual assistance among Contracting States in the training of aviation personnel should be encouraged and facilitated, particularly in those matters where the lack of adequate training may adversely affect the safety, security or regularity of international air navigation;

- d) the Organization should advise Contracting States on the operational oversight of training facilities; and
- e) the Organization should not participate in the operation of training facilities but should encourage and advise operators of such facilities.

#### **Associated practices**

1. Through the development of specifications and guidance material, the conduct of training seminars, and by direct advice and consultation, the Council should assist Contracting States to:
  - a) standardize, as far as practicable, the curricula, methods and content of training courses and establish adequate examination and licensing provisions;
  - b) bring levels of accomplishment into line with international Standards; and
  - c) employ the criteria referred to in a) and b) above so as to bring about greater uniformity in operating practices and procedures.
2. Continuing attention should be given to the establishment of specialized and advanced training courses when needed to provide the skills required to install, operate and maintain facilities and services.
3. The Council should encourage the Contracting States to establish requirements for:
  - a) on-the-job training, including familiarization with relevant operating conditions, for personnel who, after completion of their basic training, require practical experience under actual operating conditions before being assigned to positions of responsibility in operational posts; in this regard States' attention should be invited to the possibility of drawing fully upon the resources of the various technical cooperation and assistance programmes; and
  - b) periodic refresher training particularly when new equipment, procedures or techniques are introduced.
4. The Council should request the Contracting States to provide, for dissemination to other States, information on the types of aeronautical courses they sponsor or are otherwise available in their States to which students are accepted from other States, including the address to which enquiries may be sent for additional details. Similarly, the Council should make available to Contracting States all pertinent information concerning training establishments assisted through ICAO that admit students from other countries.
5. The Council should urge Contracting States to make the maximum practicable use of training centres in their area for training their aviation personnel in fields where there are no corresponding national schools. To this end, the Council should encourage States to establish favourable conditions for attendance by nationals of other States in the area.

## APPENDIX I

### Coordination of aeronautical systems and subsystems

*Whereas* it is desirable to avoid unnecessary duplication of functions performed by equipments installed on board aircraft or in ground or space installations in the general interests of economy;

*Whereas* it might be possible to reduce the aggregate complexity of future equipments by coordinating the general, functional specifications for new specific equipments with those of the other equipments either on board aircraft, or in ground or space installations;

*Whereas* it is recognized that such coordination may nevertheless encounter technical and operational difficulties and must take into account cost effectiveness and the need for progressive implementation without undue penalty; and

*Whereas* the Air Navigation Commission has, to the extent necessary, performed a coordinating function for various technical activities under its control taking into due account information provided to it by States;

*The Assembly resolves* that work on aeronautical systems and subsystems shall be closely coordinated paying due regard to their interrelationships and taking into account operational requirements, expected technical progress and operational cost/benefit considerations.

## APPENDIX J

### Formulation of Regional Plans including Regional Supplementary Procedures

*Whereas* the Council establishes Regional Plans setting forth the facilities, services and Regional Supplementary Procedures to be provided or employed by Contracting States pursuant to Article 28 of the Convention;

*Whereas* the Regional Plans require amendment from time to time to reflect the changing needs of international civil aviation;

*Whereas* ICAO has established an approach to planning of facilities and services that centres on the Global ATM Operational Concept and the Global Air Navigation Plan; and

*Whereas* planning of facilities and services should support a performance-based approach to planning;

*The Assembly resolves* that:

1. Regional Plans shall be revised when it becomes apparent that they are no longer consistent with current and foreseen requirements of international civil aviation;

2. when the nature of a required change permits, the associated amendment of the Regional Plan shall be undertaken by correspondence between the Organization and Contracting States and international organizations concerned; and
3. when amendment proposals are associated with the services and facilities provided by States and such amendment proposals:
  - g) do not represent changes to the requirements set by the Council in the Regional Plans;
  - h) do not conflict with established ICAO policy; and
  - i) do not involve issues which cannot be resolved at the regional level;

the Council may delegate authority for processing and promulgating such amendments to the regional level.

#### **Associated practices**

1. The Council should ensure that the structure and format of regional plans is aligned with the Global Air Navigation Plan and in support of a performance based-approach to planning;
2. The Council, taking into account the requirement to improve still further existing safety levels, should keep under review the effect of changing requirements on the Regional Plans to ascertain in good time any need for their revision.
3. In assessing the urgency of any revision of the Regional Plans the Council should take into account the time needed by Contracting States to arrange for the provision of any necessary additional facilities and services.
4. The Council should ensure that implementation dates in Regional Plans involving the procurement of new types of equipment are realistically related to the ready availability of suitable equipment.
5. The Council should ensure that an electronic database of regional plans is developed, with supporting planning tools, in order to improve efficiency and expedite the amendment cycle;
6. The Council should use the planning groups it has established throughout the regions to assist in keeping up to date the Regional Plans and any complementary documents.

#### **APPENDIX K**

##### **Regional air navigation (RAN) meetings**

*Whereas* RAN meetings are important instruments in the determination of the facilities and services the Contracting States are expected to provide pursuant to Article 28 of the Convention;

*Whereas* these meetings entail substantial expenditures of effort and money by Contracting States and the Organization;

*Whereas* it is necessary to ensure that maximum benefit is obtained from these meetings without imposing any undue burden on Contracting States or the Organization; and

*Considering* that regional air navigation planning is normally accomplished by Planning and Implementation Regional Groups (PIRGs);

*The Assembly resolves that:*

1. RAN meetings shall be convened only to address issues which cannot be adequately addressed through PIRGs;
2. the convening of such meetings and their agenda shall be based on the existence or expectation of specific shortcomings in the Regional Plans of the respective areas;
3. the geographical area to be considered, account being taken of the existing and planned international air transport and international general aviation operations, the technical fields to be dealt with and the languages to be used shall be decided for each such meeting;
4. the organization best suited to deal with the agenda and to ensure effective coordination among the components of the meeting shall be used for each such meeting; and
5. meetings of limited technical and/or geographical scope shall be convened when specific problems, particularly those requiring urgent solution, need to be dealt with or when convening them will reduce the frequency with which full-scale RAN meetings must be held.

#### **Associated practices**

1. The Council should endeavour to hold RAN meetings at sites within the areas concerned and should encourage the Contracting States within those areas to serve as host, either individually or jointly.
2. The approved agenda and the main supporting documentation should be made available, by electronic means, not less than ten months in advance of the convening date in the case of the agenda and not less than three months in the case of the main supporting documentation.
3. The Council should ensure that adequate guidance is made available to RAN meetings on operational and technical matters relevant to their agenda.
4. Each participating Contracting State should inform itself, in advance of a meeting, on the plans of its air transport operators and its international general aviation for future operations and, similarly, on the expected traffic by other aircraft on its registry and on the overall requirements of these various categories of aviation for facilities and services.



5. The Council, taking into account the requirement to improve still further existing safety levels, should foster the establishment, for and by RAN meetings, of up-to-date planning criteria which would aim to ensure that Regional Plans satisfy the operational requirements and are economically justified.
6. The Council should develop and maintain specific and detailed directives for consideration of implementation matters at RAN meetings.

## **APPENDIX L**

### **Implementation of Regional Plans**

*Whereas* in accordance with Article 28 of the Convention Contracting States undertake, in so far as they may find practicable, to provide air navigation facilities and services necessary to facilitate international air navigation;

*Whereas* the Regional Plans set forth the requirements for facilities and services for international civil aviation; and

*Whereas* any serious deficiencies in the implementation of Regional Plans may affect the safety, regularity and efficiency of international air operations and therefore should be eliminated as quickly as practicable;

*The Assembly resolves that:*

1. priority shall be given in the implementation programmes of Contracting States to the provision, including continuing operation, of those facilities and services the lack of which would likely have a serious effect on international air operations;
2. the identification and investigation of and action by the Organization on serious deficiencies in the implementation of Regional Plans shall be carried out in the minimum practicable time; and
3. regional planning and implementation groups shall identify problems and shortcomings in Regional Plans and in the implementation thereof, along with suggested remedial measures.

### **Associated practices**

1. The Council, taking into account the requirement to improve still further existing safety levels, should inform fully and promptly each Contracting State of the recommendations for the provision of air navigation facilities and services that are applicable to that State under the Regional Plans.
2. Contracting States should prepare and keep up to date suitable plans, including the requirements for personnel, for the orderly implementation of the parts of Regional Plans applicable to them.
3. The Council should arrange for the monitoring of the status of implementation of the Regional Plans and for the issue of periodic progress reports which should include information on serious shortcomings in implementation of the Regional Plans.

4. The users of air navigation facilities and services should report any serious problems encountered due to the lack of implementation of air navigation facilities or services required by Regional Plans. The reports should be addressed to the Contracting States responsible for implementation. These States should act on such reports to resolve the problems, but when remedial action is not taken users should inform ICAO, through the medium of an international organization where appropriate.

5. The Council should arrange for periodic review of serious problems encountered by users due to the lack of implementation of air navigation facilities or services and, when appropriate, for measures to be taken to facilitate elimination of the problems as quickly as practicable.

## **APPENDIX M**

### **Delimitation of air traffic services (ATS) airspaces\***

*Whereas* Annex 11 to the Convention requires a Contracting State to determine those portions of airspace over its territory within which air traffic services will be provided and, thereafter, to arrange for such services to be established and provided;

*Whereas* Annex 11 to the Convention also makes provision for a Contracting State to delegate its responsibility for providing air traffic services over its territory to another State by mutual agreement;

*Whereas* both the delegating and the providing State can reserve the right to terminate any such agreement at any time; and

*Whereas* Annex 11 to the Convention prescribes that those portions of the airspace over the high seas where air traffic services will be provided shall be determined on the basis of regional air navigation agreements, which are agreements approved by the Council usually on the advice of regional air navigation meetings;

*The Assembly resolves*, with reference to regional air navigation plans, that:

1. the limits of ATS airspaces, whether over States' territories or over the high seas, shall be established on the basis of technical and operational considerations with the aim of ensuring safety and optimizing efficiency and economy for both providers and users of the services;
2. established ATS airspaces should not be segmented for reasons other than technical, operational, safety and efficiency considerations;
3. if any ATS airspaces need to extend over the territories of two or more States, or parts thereof, agreement thereon should be negotiated between the States concerned;
4. the providing State in implementing air traffic services within airspace over the territory of the delegating State shall do so in accordance with the requirements of the delegating State, which shall establish and maintain in operation such facilities and services for the use of the providing State as are mutually agreed to be necessary;

5. any delegation of responsibility by one State to another or any assignment of responsibility over the high seas shall be limited to technical and operational functions pertaining to the safety and regularity of the air traffic operating in the airspace concerned;

and, *furthermore, declares* that:

6. any Contracting State which delegates to another State the responsibility for providing air traffic services within airspace over its territory does so without derogation of its sovereignty; and

7. the approval by the Council of regional air navigation agreements relating to the provision by a State of air traffic services within airspace over the high seas does not imply recognition of sovereignty of that State over the airspace concerned.

### **Associated practices**

1. Contracting States should seek the most efficient and economic delineation of ATS airspaces, the optimum location of points for transfer of responsibility and the most efficient coordination procedures in cooperation with the other States concerned and with the Organization.

2. The Council should encourage States providing air traffic services over the high seas to enter, as far as is practicable, into agreements with appropriate States providing air traffic services in adjacent airspaces, so that, in the event the required air traffic services over the high seas cannot be provided, contingency plans, which may require temporary modifications of ATS airspace limits, will be available to be put into effect with the approval of the ICAO Council until the original services are restored.

## **APPENDIX N**

### **Provision of search and rescue services**

*Whereas* in accordance with Article 25 of the Convention each Contracting State undertakes to provide such measures of assistance to aircraft in distress in its territory as it may find practicable and to collaborate in coordinated measures which may be recommended from time to time pursuant to the Convention;

*Whereas* Annex 12 to the Convention contains specifications relating to the establishment and provision of search and rescue services within the territories of Contracting States as well as within areas over the high seas;

*Whereas* Annex 12 to the Convention specifies that those portions of the high seas where search and rescue services will be provided shall be determined on the basis of regional air navigation agreements, which are agreements approved by the Council usually on the advice of regional air navigation meetings;

*Whereas* Annex 12 to the Convention recommends that search and rescue regions should, in so far as practicable, be coincident with corresponding flight information regions and, with respect to those areas over the high seas, maritime search and rescue regions;

*Whereas* Article 69 of the Convention specifies that, if the Council is of the opinion that the air navigation services of a Contracting State are not reasonably adequate for the safe operation of international air services, present or contemplated, the Council shall consult with the State directly concerned, and other States affected, with a view to finding means by which the situation may be remedied, and may make recommendations for that purpose; and

*Whereas* the air navigation services referred to in Article 69 of the Convention include, inter alia, search and rescue services;

*The Assembly resolves that:*

1. search and rescue regions, whether over States' territories or, in accordance with regional air navigation agreement, over an area greater than a State's sovereign airspace or over the high seas, shall be delimited on the basis of technical and operational considerations, including the desirability of coincident flight information regions, search and rescue regions, and, with respect to areas over the high seas, maritime search and rescue regions, with the aim of ensuring safety, and optimizing efficiency with the least overall cost;
2. States shall ensure the closest practicable cooperation between maritime and aeronautical search and rescue services where they serve the same area and, where practical, establish joint rescue coordination centres to coordinate aeronautical and maritime search and rescue operations;
3. if any search and rescue regions need to extend over the territories of two or more States, or parts thereof, agreement thereon should be negotiated between the States concerned;
4. the providing State in implementing search and rescue services over the territory of the delegating State shall do so in accordance with the requirements of the delegating State, which shall establish and maintain in operation such facilities and services for the use of the providing State as are mutually agreed to be necessary;
5. any delegation of responsibility by one State to another or any assignment of responsibility over the high seas shall be limited to technical and operational functions pertaining to the provision of search and rescue services in the area concerned;
6. remedies to any inadequacies in the provision of efficient search and rescue services, including over the high seas, should be sought through negotiations with States which may be able to give operational or financial assistance in search and rescue operations, with a view to concluding agreements to that effect;

and, *furthermore*, *declares that:*

7. any Contracting State which delegates to another State the responsibility for providing search and rescue services within its territory does so without derogation of its sovereignty; and
8. the approval by Council of regional air navigation agreements relating to the provision by a State of search and rescue services within areas over the high seas does not imply recognition of sovereignty of that State over the area concerned.

### **Associated practices**

1. Contracting States should, in cooperation with other States and the Organization, seek the most efficient delineation of search and rescue regions and consider, as necessary, pooling available resources or establishing jointly a single search and rescue organization to be responsible for the provision of search and rescue services within areas extending over the territories of two or more States or over the high seas.
2. The Council should encourage States whose air coverage of the search and rescue regions for which they are responsible cannot be ensured because of a lack of adequate facilities, to request assistance from other States to remedy the situation and to negotiate agreements with appropriate States regarding the assistance to be provided during search and rescue operations.

## **APPENDIX O**

### **Coordination of civil and military air traffic**

*Whereas* the airspace as well as many facilities and services should be used in common by civil aviation and military aviation;

*Whereas* Article 3 (d) of the Convention requires that Contracting States, when issuing regulations for their State aircraft, have due regard for the safety of navigation of civil aircraft;

*Recognizing* that growing air traffic demand would benefit from greater access to airspace used for military purposes and that satisfactory solutions to the problem of common use of airspace have not evolved in all areas;

*Whereas* although full integration of the control of civil and military air traffic may be regarded as the ultimate goal, improvement in coordination in many States offers, at the present time, an immediate approach towards resolution of existing difficulties; and

*Recalling* that the ICAO Global ATM Operational Concept states that all airspace should be a usable resource, any restriction on the use of any particular volume of airspace should be considered transitory, and all airspace should be managed flexibly;

*The Assembly resolves that:*

1. the common use by civil and military aviation of airspace and of certain facilities and services shall be arranged so as to ensure the safety, regularity and efficiency of international civil air traffic;
2. the regulations and procedures established by Contracting States to govern the operation of their state aircraft over the high seas shall ensure that these operations do not compromise the safety, regularity and efficiency of international civil air traffic and that, to the extent practicable, these operations comply with the rules of the air in Annex 2; and
3. the Council shall endeavour to support States in the establishment of civil/military agreements by providing advice and guidance.

### **Associated practices**

1. Contracting States should as necessary initiate or improve the coordination between their civil and military air traffic services to implement the policy in Resolving Clause 1 above.
2. The Council should ensure that the matter of civil and military coordination in the use of airspace is included, when appropriate, in the agenda of divisional and regional meetings.
3. When establishing the regulations and procedures mentioned in Resolving Clause 2, the State concerned should coordinate the matter with all States responsible for the provision of air traffic services over the high seas in the area in question.

## **APPENDIX P**

### **The provision of adequate aerodromes**

*Whereas* major improvements to the physical characteristics of aerodromes are required at many locations;

*Whereas* in certain cases these improvements will involve considerable outlay and it would be inadvisable to plan such work without taking into account future developments;

*Whereas* States and aerodrome authorities will continue to need to know the general trends in aerodrome requirements which succeeding generations of aircraft will most likely produce;

*Whereas* many serious problems can be avoided if the operating requirements of new aircraft are such as to permit them to operate economically without further demands on the physical characteristics of aerodromes;

*Whereas* the operation of aerodromes has many advantages, environmental considerations have imposed limitations upon the operation of aircraft at some locations. In view of the capacity problems currently experienced globally, account should be taken of the introduction into service of newer quieter aircraft; and

*Whereas* there is a growing trend for aerodromes to be operated by autonomous entities, the obligation of States to ensure safe aerodrome facilities and services remains unaffected;

*The Assembly resolves that:*

1. the technical requirements for aerodromes shall be kept under review by the Organization;
2. there is a need for future generations of aircraft to be designed so that they are capable of being operated efficiently, and with the least possible environmental disturbance, from aerodromes used for the operation of present-day aircraft;
3. States shall undertake certification of aerodromes; and

4. States should ensure that safety management systems are introduced at their aerodromes.

#### **Associated practices**

1. In the light of the results of the continuing review mentioned in Resolving Clause 1 above, the Council, taking into account the requirement to improve still further existing safety levels, should:

- a) develop additional guidance material on future developments; and
- b) keep Contracting States informed of developments.

2. The Council should continue to draw the attention of aircraft manufacturers and operators to the policy expressed in Resolving Clause 2.

### **APPENDIX Q**

#### **Ground and flight testing of radio navigation aids**

*Whereas* it is essential that the performance of radio navigation aids is checked through regular testing; and

*Whereas* the development of greatly improved ground testing facilities would minimize the need for flight testing;

*The Assembly resolves that:*

1. pending the possible availability of greatly improved ground testing facilities, radio navigation aids shall be checked through regular flight testing; and
2. to minimize the need for periodic flight testing, improvements should be made to radio navigation ground equipment, including associated ground testing and monitoring facilities, which would provide the same level of assurance of performance as flight testing.

#### **Associated practices**

1. Pending the possible development of greatly improved ground testing facilities, Contracting States should establish their own flight test units, establish joint units with other States or conclude agreements to have flight tests performed on their behalf by States or agencies with suitable facilities.

2. The Council should continue its efforts to coordinate arrangements by Contracting States for the regular flight testing of their radio navigation aids.

3. The Council should investigate, in consultation with Contracting States that are engaged in the development and manufacture of radio navigation systems, all possible means of improving ground testing facilities so as to minimize the need for periodic flight testing.

4. The Council should circulate to Contracting States information concerning significant developments with respect to improvements to radio navigation ground equipment, including associated ground testing and monitoring facilities, to the extent that those developments will serve to minimize the need for flight testing.

## **APPENDIX R**

### **Adequate conditions of employment for aviation ground personnel**

*Whereas* conditions of employment that do not correspond to the qualifications and responsibilities of aviation ground services personnel constitute a major cause of difficulty in recruiting suitably qualified personnel and retaining them after completion of the training; and

*Whereas* this difficulty is impeding the satisfactory implementation of Regional Plans, SARPs and PANS;

*The Assembly resolves* that conditions of employment for personnel in the aviation ground services should be commensurate with the qualifications required and the responsibility carried by them.

## **APPENDIX S**

### **Participation by States in the technical work of ICAO**

*Whereas* the technical contributions of Contracting States are essential to attain satisfactory progress in the technical work of the Organization;

*Whereas* difficulties are from time to time experienced in obtaining prompt and adequate contributions from Contracting States to the technical work of the Organization; and

*Whereas* it is necessary to ensure that maximum benefit is obtained from this participation without imposing an undue burden on Contracting States and the Organization;

*The Assembly resolves* that there is a need for effective technical contributions from Contracting States to the technical work of the Organization.

### **Associated practices**

1. The Council should encourage effective participation by Contracting States in the technical work of the Organization, paying due regard to the need to minimize the cost to the Organization and Contracting States of such participation.

2. In so far as each may find it practicable, Contracting States should:

- a) assist, by correspondence, in advancing ICAO technical projects;
- b) attend ICAO meetings and participate actively in pre-meeting preparations, particularly by presenting advance documentation containing either specific proposals relative to items of the agenda or their views on documentation submitted to them;



- c) participate in ICAO panel activities and ensure that their nominees are suitably qualified and are able to contribute effectively to the panel work;
- d) undertake specialized studies as requested by the Organization; and
- e) assist the Organization in its technical work through any other means the Council may devise.

## APPENDIX T

### **The Headquarters' and Regional Offices' technical Secretariat**

*Whereas* there is a continuing need to provide effective assistance to Contracting States in the implementation of Regional Plans, SARPs, PANS and SUPPs;

*Whereas* it is important that the technical Secretariat of Headquarters and the Regional Offices is effectively used to provide assistance to Contracting States in their implementation problems; and

*Whereas* it is important that, for the proper execution of their tasks, the members of the technical Secretariat of Headquarters and the Regional Offices are enabled to maintain their technical proficiency and are kept adequately informed of the latest developments in their particular fields;

*The Assembly resolves that:*

1. the resources of the Headquarters' and Regional Offices' technical Secretariat shall be effectively deployed to provide optimum assistance to Contracting States with their problems relating to the implementation of Regional Plans, SARPs, PANS and SUPPs; and
2. the members of the Headquarters' and Regional Offices' technical Secretariat shall be enabled to maintain their technical proficiency and to keep adequately informed on the latest technical developments.

### **Associated practices**

1. The members of the Headquarters' and Regional Offices' technical Secretariat should be enabled to carry out frequent visits of adequate duration when such visits are necessary or are requested by Contracting States to assist them with their implementation problems.
2. To the maximum practicable extent, temporary assignment of specialized personnel from one Regional Office to another and from Headquarters to the Regional Offices should take place when temporary reinforcement in the Regional Offices is required.
3. The members of the Headquarters' and Regional Offices' technical Secretariat should be enabled to keep adequately up to date in their particular fields by, inter alia, attendance at selected technical meetings, visits to research and development organizations, witnessing trial applications, and evaluation of new equipment and techniques. However, such visits should not be allowed to take priority over the primary function of the Secretariat to serve the Organization and its several deliberative bodies. Furthermore, the travelling on such visits should be integrated as far as possible with travel necessary for the performance of other ICAO duties.

## APPENDIX U

### **Cooperation among Contracting States in investigations of certain aircraft accidents**

*Whereas* it is incumbent on the State in which an accident occurs to institute an inquiry into the circumstances of the accident in conformity with Article 26 of the Convention;

*Whereas*, owing to the growing sophistication and complexity of modern aircraft, the conduct of an accident investigation requires participation by experts from many specialized technical and operational fields and access to specially equipped facilities for investigation;

*Whereas* many Contracting States do not have such specialized technical and operational expertise and appropriate facilities;

*Whereas* it is essential for flight safety and accident prevention that accidents be thoroughly investigated and reported and that the effectiveness of the investigations should not be unduly hampered by considerations of cost; and

*Whereas* the costs of salvage and investigation of major aircraft accidents may place a heavy financial burden on the resources of the State where the accident occurred;

*The Assembly resolves* to recommend that Contracting States cooperate in the investigation of major aircraft accidents or accidents in which the investigation requires highly specialized experts and facilities and that to this end Contracting States, to the extent possible, inter alia:

- a) provide, on request by other Contracting States, expert assistance and facilities for the investigation of major aircraft accidents; and
- b) afford opportunity to Contracting States seeking investigation experience to attend investigations of major aircraft accidents, in the interest of developing and furthering investigation expertise.

### **Associated practices**

1. Contracting States should be encouraged to support the convening of regional accident investigation workshops with a view to exchanging information on each State's investigation legislation and procedures, on the sharing of knowledge and expertise in investigation management and techniques, on the availability of experts and facilities and on practices in dealing with encountered accident investigation difficulties.

2. Contracting States should be encouraged to facilitate the participation of investigators of accident investigation authorities as observers in investigations in other States for training purposes and orientation visits.

3. Contracting States should be encouraged to assess their needs and capabilities in the field of aircraft accident investigation and prevention with a view to developing training curricula for basic accident investigation and prevention courses. The use of regional training centres for such courses

should be fully explored as well as the incorporation of the TRAINAIR methodology which provides for internationally standardized training.

## **APPENDIX V**

### **Flight safety and human factors**

*Whereas* the aims and objectives of ICAO as laid down by the Chicago Convention provide for fostering the development of international air transport “. . . so as to . . . promote safety of flight in international air navigation”;

*Whereas* it is recognized that human factors relate to the limitations of human performance in the aviation environment;

*Whereas* the human factors influence is manifested in a majority of accidents (in the order of 70 per cent), there is therefore a continuing need to adopt appropriate measures aimed at reducing the number of aircraft accidents;

*Whereas* the increased use of automation and the introduction of new technology with its associated complexity in both flight and ground operations may further exacerbate the human factors issues unless appropriate and timely measures are taken;

*Whereas* a number of States are carrying out human factors programmes, the experience they have acquired should be put to practical use, with a view to raising the safety level of air transport; and

*Whereas* it is accepted that in order to bring about substantial progress in raising the aviation safety level, the human factors influence on aircraft accidents must be further reduced;

*The Assembly resolves that:*

1. Contracting States should take into account relevant human factors aspects when designing or certifying equipment and operating procedures and when training and/or licensing personnel;
2. Contracting States should be encouraged to engage in far-reaching cooperation and mutual exchange of information on problems related to the influence of human factors on the safety of civil aviation operations; and
3. the Council should collect and analyse the experience of States and develop and introduce appropriate ICAO material regarding the various aspects of human factors.

## **APPENDIX W**

### **The provision of air traffic services**

*Whereas* in accordance with Annex 11 to the Convention, Contracting States are required to arrange for air traffic services to be provided in airspaces and at aerodromes for which it has been determined that such services would be required;

*Whereas* Annex 11 to the Convention requires Contracting States to ensure that ATS safety management programmes are established; and

*Whereas* cooperative efforts between Contracting States could lead to more efficient air traffic management;

*The Assembly resolves that:*

1. in implementing air traffic services, States shall ensure that the services being provided meet established requirements for safety, regularity and efficiency of international civil aviation;
2. taking into account the need for cost-effective introduction and operation of CNS/ATM systems, States give consideration to cooperative efforts for introducing more efficient airspace management, in particular, in the upper airspace; and
3. States should ensure that safety management programmes are introduced by the relevant air traffic services provider in all airspaces and at all aerodromes where air traffic services are provided.

#### **Associated practice**

Contracting States should consider, as necessary, establishing jointly a single air traffic services authority to be responsible for the provision of air traffic services within ATS airspace extending over the territories of two or more States or over the high seas.

— END —