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Perspectives of Joint Financing of Air Navigation Services

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Abstract

According to Chapter XV of the Chicago Convention, the Joint Financing Aid has been successfully applied in the North Atlantic Region since 1948. The Agreement on the Joint Financing of Certain Air Navigation Services in Iceland, the main topic of this thesis, has ensured the availability of the service and facilities in the Reykjavik Flight Information Region, in accordance with the Standards and recommended practices of the Annexes to the Chicago Convention. The services were at first financed by the participating States, but later on user charges were gradually introduced and, since 1981, they became the principal means of services financing.

During the last thirty years, a series of significant social, economic and technical developments has changed the aviation and the air navigation services environment. This thesis examines the evolution of the Agreement and the general technical and economic tendencies that are likely to affect its future. The possibility of running the services without aid, which arose due to the recent advancements in the satellite global navigation and automation in the air traffic management and communication services, is also considered. If this possibility is to materialize, it will likely eliminate the need for direct aid, with a subsequent reduction of the number of area control centres and providers therein.

This thesis critically examines the Agreement in light of ICAO policy on the joint support aid and the general economic situation surrounding the Agreement. It concludes that, today, the States financial aid has become unnecessary to the carrying out of the air navigation services which are well supported by the system of user charges. It further offers two recommendations first, that the Joint Financing Agreement should be either considerably modified to minimise the cumbersome administrative process and cost associated with it, or terminated altogether. Secondly, ICAO should change its Joint Support policy to reflect how it has been applying it up to today or how it wants to develop the policy in the future as a possible general financial mechanism in this field.

Résumé

L'aide conjointe au financement prévue au chapitre XV de la *Convention de Chicago* a été mise en application avec succès dans la région de l'Atlantique Nord à partir de 1948. L'*Accord sur le financement conjoint de certains services de navigation aérienne en Islande*, sur lequel porte cette thèse, a assuré la disponibilité, en conformité avec les standards et les pratiques recommandées par les annexes aux Conventions, des services et des équipements dans la région d'information aérienne de Reykjavik. Alors qu'initialement, les services étaient financés par les États participants, l'introduction graduelle de frais aux usagers a fait en sorte que depuis 1981, les services ont été financés pour l'essentiel par les utilisateurs.

Durant les dernières trentes années, des développements sociaux, économiques et techniques significatifs ont transformé l'environnement dans lequel s'inscrivent les services de transport et de navigation aériens. Cette thèse passe en revue le développement de l'accord ainsi que les changements économiques et techniques susceptibles de l'affecter dans l'avenir, et prend en considération la possibilité d'assurer les services sans aide extérieure dans l'avenir, grâce aux progrès dans les domaines de la navigation par satellite et de l'automatisation du contrôle du trafic aérien et des communications. Ce changement se reflètera vraisemblablement à travers la réduction des centres de contrôle régionaux et du nombre de fournisseurs, ce qui réduira d'autant la nécessité d'aide extérieure en permettant la fusion de fournisseurs dans des secteurs où les services n'étaient pas profitables, amenant ainsi des économies d'échelle.

L'examen critique de l'Accord à la lumière de la politique de l'OACI sur l'aide conjointe au financement et de la situation économique générale entourant l'Accord révèle que cette aide est aujourd'hui peu significative et que les services peuvent être rendus autosuffisants par le recours aux frais aux usagers. Nous concluons donc que l'Accord a accompli sa tâche et ne remplit plus une fonction utile.

Abbreviations

ACC	Area Control Centre
ADS	Automatic Dependent Surveillance
AFTN	Aeronautical Fixed Telecommunication Network
ALLPIRG	All Regional Implementation and Planning Groups
ANC	Air Navigation Committee
ANP	Air Navigation Plan
ANS	Air Navigation Services
ASECNA	Agency for the Safety of Air Navigation in Africa and Madagascar
ATM	Air Traffic Management
ATS	Air Traffic Service
CAA	Civil Aviation Authority
CANSO	Civil Air Navigation Services Organisation
CFMU	Central Flow Management Unit
CNS	Communication Navigation Surveillance
COCESNA	Central American Safety Services Corporation
COM	Communication
CRCO	Central Route Charges Office
CTA	Control Area
DME	Distance Measuring Equipment
ECAC	European Civil Aviation Conference
EEA	Agreement on the European Economic Area
EFTA	European Free Trade Association
EGNOS	European Geostationary Navigation overlay Service.
EU	European Union
EUROCONTROL	European Organization for the Safety of Air Navigation
FAA	Federal Aviation Administration
FANS	Special Committee on Future Air Navigation Systems
FDPS	Flight Data Processing System,
FIR	Flight Information Region
GATS	General Agreement on Trade in Services
GLONASS	Global Orbiting Navigation Satellite system
GNSS	Global Navigation Satellite System

GPS	Global Positioning System
HF	High Frequency
IACA	International Air Carrier Association
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICS	Integrated Communication System
ILS	Instrument Landing System
INS	Inertial Navigation System
LORAN	Long Range Air Navigation System
MET	Meteorological
MLS	Microwave Landing System
MNPS	Minimum Navigation performance Specifications
MTSAS	Multi-Functional transport Satellite (Japan).
NACP	North Atlantic Crossing Panel
NAT	North Atlantic Region
NAT SPG	North Atlantic Region Special Planning Group
NATS	National Air Traffic Services (UK)
NAV CANADA	Canadian Air Traffic Services
NDB	Non-directional Radio Beacon
NHIP	Nordic Harmonisation and Integration Programme (Study)
OECD	Organisation for Economic Co-operation and Development
PICAO	Provisional International Civil Aviation organization
PPS	Precise Positioning Service
RANP	Regional Air Navigation Plan
RNAV	Area Navigation
RVSM	Reduced Vertical Separation Minima
SADIS	Satellite Distribution System
SARPs	Standards and Recommended Practices
SCAR	Cost Allocation and Recovery
SPS	Standard Positioning Service
UK-CAA	United Kingdom – Civil Aviation authority
VHF	Very High Frequency
VOR	VHF Omnidirectional Radio Range
WASS	Wide Area Augmentation System (US)

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Introduction

Over sixty years ago, the first commercial airlines were taking their first tentative steps towards the introduction of the passenger service across the Atlantic. No significant air traffic services existed then, but this was to be changed under the exigent circumstances of the Second World War. The limited communication, as well as the meteorological and flight services established in Iceland by the British and American forces during the war era, were in the post war years largely maintained, by the Icelandic Government. At the time, Iceland had neither resources nor need for the services and was unable to keep up to the standards required by the increasing trans-Atlantic air traffic without external aid.

The services were later to be collectively financed by interested States on both sides of the Atlantic under the *Agreement on the Joint Financing of Certain Air Navigation Services in Iceland* (ICAO Doc 7727-JS/564), the main subject of this thesis. The support program was run under the auspices of ICAO and supervised by its Secretary General. The following sections will focus on the Agreement, its historical evolution and its legal provisions in Chapter XV of the Chicago Convention. [hereafter Chapter XV]. The latter provisions were indistinctive and needed additional interpretation and clarification. This thesis will study the policy of ICAO in implementing the provisions of Chapter XV and other relevant policies and statements by the Organization. From the start, the Joint Finance Agreement followed the policy principles and was considered a prima facie example for its execution. Today, more than fifty years later, Iceland is still being aided to provide the necessary air navigation services for the trans-Atlantic flights.

During the past three decades we have witnessed countless social, technical and economical changes in the world, some of which have been reflected in the Joint Financing Agreement. One of the changes is the introduction of the user charges, which are presently the principal source of the air navigation services funding under the Joint Financing Agreement. The primary goal of any aid is to make the receiver of aid able to

manage its activity on its own, that is, to become self-sustained. The Services are now directly financed through user charges.

This raises the question as to whether there is any need for the Joint Financing and whether the Agreement has outlived its usefulness. This thesis will consider these questions, as well as two other points of impact on the Agreement's development. The first one - technical changes - raises the question of choosing between aiding the local provider (Joint Financing) or an external provider capable of providing the services without aid.

The second point is privatization of the services. This thesis will consider privatization as an option, which might replace the Joint Financing, and whether the privatization would be consistent with the Agreement and the collective action of joint financing.

PART I.

1. The Chicago Convention and ICAO Joint Financing Policy

1.1 General

The Wright brother's first flight at the turn of the 20th century was the beginning of an era of economic and social changes. Since then, the technical development of aviation during two World Wars and the Cold War era, with the infusion of massive military spending, has made the aviation industry the most technically advanced of all. The economical and social importance of aviation in our times is enormous and undisputed.

The Chicago Convention¹ was adopted in 1944 and was the monumental codification of air law and general international law. It later proved the great foresight of its creators by becoming the Constitution of Civil Aviation.² There are 185 member nations of ICAO, which makes the Convention the most universally accepted instrument in this area of law. The objectives of the Convention are, for example, to foster the planning and development of international air transport, to encourage the development of air navigation facilities for international flights for the overall goals of creating and preserving friendship and understanding, to avoid friction and to promote co-operation.³ These goals are inter alia being fostered in Chapter XV⁴ of the Chicago Convention, Airports and Other Air Navigation Facilities, the provisions generally referred to as "joint financing." One of the few agreements made under these provisions is the Agreement on Joint Financing of the Air Navigation Services in Iceland.⁵ Iceland, then newly

¹ *Convention on the International Civil Aviation*, signed at Chicago on 7 December 1944 (entered into force 4 April 1947). 15 UNTS 295, (Doc 7300/6 1980) [hereinafter the Chicago Convention].

² See Michael Milde, "The Chicago Convention – Are Major Amendments Necessary or Desirable 50 Years Later" (1994) Vol. XIX-I, *Annals of Air and Space Law*, 401 at 402.

³ Article 44 and the Preamble of the Chicago Convention.

⁴ Chapter XV was originated in, the Canadian Revised Preliminary Draft of International Air Conventions. See *Proceedings of the International Civil Aviation Conference*, Chicago Illinois November 1-December 7, 1944 Vol. I at 579 [hereinafter the Chicago Proceedings].

⁵ ICAO, *Agreement on the Joint Financing of Certain Air Navigation Services in Iceland*, (Doc. 7726-JS/564, 1957)[hereinafter the *Joint Financing Agreement*].

independent from the Danish colonial regime, exercised its sovereign right to become one of the signatories to the Chicago Convention.⁶

1.2 State Responsibility for Providing Air Navigation Facilities

Successful operations of international air services required navigational aids and facilities. One of the objectives of the Chicago Convention is to develop the principles and techniques of international air navigation and to encourage the development of airways, airports and air navigation facilities.⁷ One of the main obligations imposed on the member States [hereafter referred to as *Contracting States*] by the Convention and found in Article 28 dealing with Air navigation facilities and standard systems is to provide air navigation facilities to assist international air navigation:

Each contracting State undertakes, so far as it may find practicable, to:

- (a) Provide, in its territory, airports, radio services, meteorological services and other air navigation facilities to facilitate international air navigation, in accordance with the standards and practices recommended or established from time to time, pursuant to this Convention;
- (b) Adopt and put into operation the appropriate standard systems of communications procedure, codes, markings, signals, lighting and other operational practices and rules which may be recommended or established from time to time, pursuant to this Convention;
- (c) Collaborate in international measures to secure the publication of aeronautical maps and charts in accordance with standards, which may be recommended or established from time to time, pursuant to this Convention.

⁶ The Icelandic delegates were: Thor Thors Iceland's minister to the USA. Agnar Kofoed-Hansen Chief of Police and a Special Adviser to Icelandic Government in Aviation, later to become the General Director of the Icelandic CAA. Guðmundur Hlíðdal the Director of the Post and Telegraph and Sigurður Thoroddsen Civil Engineer and a member of the Icelandic Parliament. Alþingi (parliament) ratified the Chicago Convention 4. April 1945, (Stjórnartíðindi Íslands A-Deild 93/1945). The ratifying instrument was delivered to the Government of USA, 21 Mars 1947. In his autobiography Mr. Thoroddsen, commenting on the Chicago Conference says that it had become evident at the conference that Iceland would not be able to foot the bill of the obligations arising from the draft Convention. The issue had been drawn to the attention of the Conference, which lead to changes enabling financing through ICAO. See Sigurður Thoroddsen, *Eins og gengur. Endurminningar Sigurðar Thoroddsen* (Reykjavík: Mál og Menning, 1984) at 306

⁷ Article 44 of the Chicago Convention.

According to Article 28, each Contracting State undertakes, as far as it may find practicable, to provide in its territory airports, communication and meteorological services and other air navigation facilities in order to facilitate international air navigation. This is to be done in accordance with the standards and recommended practices, as established from time to time according to the Chicago Convention. These standards are established by the Council under Articles 37, 54 (1) and 90 of the Convention. The Contracting States determine, as they may find practicable, the resources to be used to facilitate international air navigation. The over-flown state determines the designated route to be followed within its territory by international air service and the airports, which it may use.⁸ This is in accordance with the sovereignty rule⁹ of the Chicago Convention. The “obligations” to provide the air navigation facilities are limited to the ones needed within the State’s national territory. The obligation does not arise outside the State’s sovereignty or in airspace of the high seas and in airspace of undetermined sovereignty. This would not help to resolve navigational problems for international air navigation, considering that the high seas cover large areas of the globe. The Council interpreted Article 69 of the Chicago Convention, discussed further below, as extending the responsibility of ICAO to areas of undetermined sovereignty and on the high seas. This policy was approved by the ICAO Assembly¹⁰ and further strengthened by the ICAO Assembly Resolution A1-65, Joint Support policy, which is discussed further below, and Resolution A2-23, Programme for providing and manning indispensable air navigation facilities.¹¹ However, a regional approach was also required in the planning of required facilities. If a State provides such facilities or services over the

⁸ *Ibid.* Article 5 and 68.

⁹ *Ibid.* Article 1, where “contracting States recognise that every State has complete and exclusive sovereignty over the airspace above its territory” Consequently rejecting the freedom of the air theory.

¹⁰ See ICAO, *Report to the Council by Air Navigation/Joint Support Committees*, (Doc. 4025, A1-FA/2, 1/4/47, 1947) Appendix A, Provisions of the Convention and their Interpretation at 15.

¹¹ This Resolution is no longer in force; see ICAO, *Repertory – Guide to the Convention on International Civil Aviation*, (Doc 8900/2, 2nd ed. 1977). ICAO policy on the subject can be found in Assembly Resolution A32-14, see *infra* note 14.

high seas, it does so in accordance with or on the basis of the approved regional air navigational plans (RANPs).¹²

To achieve a safe, orderly and efficient movement of aircraft across international boundaries, it is required to have uniform and integrated system of air navigation, as well as some planning to ensure and co-ordinate the uniformity in the technical and regulatory regime. Such planning is necessary at the global, regional and national levels.

On the basis of Article 28, the ICAO council subdivided the globe into nine Air Navigation Regions.¹³ The regional planning is then done at the regional air navigation (RAN) meetings and in regional planning groups.¹⁴ Some regions have also established special planning and implementation groups. NAT-SPG is a permanent body established to consider the requirements of the North Atlantic Region. The national aviation authorities in the region convened by the ICAO Council, as well as interest groups, attend the RAN meetings. The general objectives of the meetings are to adopt special measures and to co-operate in using air navigation facilities and services in the territories of the Contracting States on a regional basis. They also include the establishment of the regional requirements of international air transport, with full consideration given to the regional distinctiveness and needs in services and facilities. This is accomplished by producing the regional air navigation plan.¹⁵ The meetings are limited to the consideration of technical and operational needs and, even though they do allow the RAN meetings inter alia to make recommendations to the Council on these issues, they may not infringe on the Council's competence concerning agreements on collective financing and collective

¹² See Standard 2.1.2 of Annex 11 to the Chicago Convention, 12th Edition, July 1998, with Amendments 39 up to 4 November 1999. See also, Michael Milde, "Legal Aspects of Future Air Navigation Systems, *Annals of Air and Space Law*" (1987) Vol. XII, 87 at 92.

¹³ The Interim Council of ICAO established initially ten Regions but currently they are nine. See ICAO, *Rules of Procedures and Directives for Regional Air Navigation Meetings*, (Doc. 6940-C/804, 1949). The most recent one *Directives to Regional Air Navigation Meetings and Rules of Procedures for their conduct*, (Doc. 8144-AN/874/6, 6th Ed. 1991) at 25.

¹⁴ See ICAO, Assembly Resolution 32-14, *Consolidated statement of ICAO continuing policies and associated practices related specifically to air navigation*. (Doc 9730, Assembly Resolutions in Force, 1998), Appendix L *Regional air navigation (RAN) meetings* and Appendix M *Implementation of Regional Plans*, at II-8.

¹⁵ *Ibid.* Where the Assembly resolves e.g. that RAN meetings convened by the Council shall be the principal means of reviewing and revising Regional Plans. See also, ICAO Doc 8144-AN/874/6 *ibid.* Part II, Chapter 1, the Regional Plan, 1.1.1, at 4.

operation of facilities.¹⁶ The RANP is to co-ordinate the requirements within each Region, to find Regional solutions and to implement them in accordance with ICAO Standards and Recommended Practices.¹⁷ In the planning process, account must be taken of the ICAO global plan and the national plans of the States in the region, which are ultimately responsible for the implementation of the facilities and services required.¹⁸ Subsequently, the ICAO Council must approve the plan.¹⁹ The North Atlantic Route Service Conference, the first regional air navigation meeting, was held in Dublin in March 1946.²⁰ A set of requirements for ANS's in the North Atlantic and the regional airspace boundaries was proposed during the meeting and subsequent NAT meetings and later approved by the Council.²¹

1.3. Derogation of power within ICAO

Before proceeding further, it is necessary to consider the derogation of power within the ICAO Organization to establish how the joint Financing duties are performed. The Organization is made up of an Assembly, a Council and other such bodies, as may be necessary.²² The Assembly is composed by representatives of all the Member States and meets in regular sessions not less than once in three years.

¹⁶ ICAO, *Further Consideration of Problem of International Collaboration, or Aid through PICAO in the Operation of Air Navigation Facilities*, (Doc. 1466 C/125 30/3/46, 1946) and the recommendation from the Air Navigation Committee (Doc. 871 AN/121 1945 and Doc. 1277, AN/163 1946). See now Doc 8144, *supra*, note 13, Part II 1.1.5, at 5.

¹⁷ See Doc 8144, *supra* note 13, Part II 1.1.3 at 4. See also, W. Schwenk & R. Schwenk *Aspects of international Co-operation in Air Traffic Management* (The Hague: Martinus Nijhoff Publishers, 1998), at 25.

¹⁸ See Doc 8144 *ibid*, Part II 1.1.3, at 4.

¹⁹ See *ibid*. Part II 1.1.1, at 4 and 1.1. 9.4, at 7.

²⁰ This was the first air navigational conference, under the auspices of ICAO, later known as Regional Air Navigation Meeting [hereinafter the Dublin Conference]. The Meeting made extensive proposals for the North Atlantic Region many of which were implemented through joint financing. See, ICAO (Doc 1466 C/125 1946) *supra*, note 16.

²¹ See ICAO, *Interim Council fourth session, Consideration of matters arising out of the PICAO North Atlantic Route Services Conference*, (Doc 1465 C/124/ 30/3/1946 and Doc. 1362 AN/179) on the issues of boundaries of areas. For the most recent ICAO Assembly Resolution on the issue, see Assembly Resolution 32-14 *supra* note 14, Appendix N, *Delineation of air traffic services (ATC) airspaces in regional air navigation plans*. Where the Assembly resolves that ATS airspace boundaries should be determined on the basis of technical and operational considerations with the aim of ensuring optimum efficiency and economy for both providers and users.

²² Article 43 of the Chicago Convention.

The powers and duties of the Assembly are inter alia to determine the financial arrangements of the Organization, to take appropriate action on reports of the Council, to decide on matters referred to it by the Council, to delegate to the Council the powers and authority necessary or desirable to discharge of the duties of ICAO and to deal with matters not specifically assigned to the Council.²³ The Assembly is the responsible body for making funds available for the Organization's technical and financial assistance programme in the provision of airports and other international air navigation facilities, according to Article 73 of the Chicago Convention.

The Council, permanent body of the Organization, is composed of 33 Member States elected by and accountable to the Assembly.²⁴ The mandatory functions of the Council are inter alia to carry out the directions of the Assembly and to discharge the duties and obligations imposed by the Chicago Convention. In accordance with Chapter XV, the Council also administers the finance of the Organization and reports to the Member States about any infraction of the Convention or any failure to carry out its recommendations.

The law-making function of adopting international standards and recommended practices is the most important function of the Council.²⁵ The Council forms policies and issues statements, which "per se ha[ve] no legal force and [are] not a source of law, but [are] possibly indicative of the incipient consensus of the international community concerning the desirable general principles of the future."²⁶ The Council may delegate its authority with respect to any particular matter to a committee of its members.²⁷

The significant difference between the powers of the Assembly and the Council is found in Article 49 (k), which states that the Assembly is to "deal with matters not specifically assigned to the Council." This means that the Assembly is ultra vires if it acts on issues within the Council's competence.²⁸ Many prerogatives of the Council are

²³ *Ibid.* Article 49 (c), (e), (h), and (k).

²⁴ *Ibid.* Article 50 (a).

²⁵ *Ibid.* Article 54, (b), (f), (j), and (l).

²⁶ See Michael Milde, "Solutions in Search of a Problem? Legal Problems of the GNSS" (1997) *Annals of Air and Space Law*, Vol. XXII Part II, 195 at 200.

²⁷ *Ibid.* Article 52. The Council has not made use of this provision, see Milde *supra*, note 2, at 433.

²⁸ See Milde *supra*, note 2, at 430.

politically charged functions making the Council the governing body of the Organization.²⁹ In addition to the above-mentioned prerogatives the Council has also competence to deal with matters within Chapter XV of the Chicago Convention concerning Joint Financing.

The Council is the governing board body of ICAO and the ICAO's chief executive officer is the President of the Council.³⁰ The Council is assisted in its task by various subordinate bodies within the Organization, such as the Air Navigation Commission, the Air Navigation Committee, the Committee on Joint Support of Air Navigation Services (JS Committee), and, finally, the ICAO Secretariat whose executive officer is the Secretary General.³¹

In the early years of PICAQ, the Interim Council was aware of, and expected a number of requests for, joint support.³² Based on its general powers, it established the Joint Support Committee, an ad hoc subcommittee, to deal with joint financing and related matters.³³ At its first session in 1947, the ICAO Assembly established the Joint Support Committee on a permanent basis, composed of nine members of the Council.³⁴ The Committee, aided by the Joint Support Bureau secretariat, has assisted the Council in supervising the Joint Financing agreements and aided in sorting out financial, technical and policy related problems.³⁵

The Council adopted the terms of reference providing the Joint Support Committee with a wide range of possibilities related to the technical and financial aid. The terms remained unchanged until 1996, when the Council resolved to assign to the Committee new functions that might be required to support future agreements other than the DEN/ICE Agreements. In particular, the change was aimed at improving the co-operation among ICAO, CAA's international organizations, service providers and airspace users for

²⁹ *Ibid.* at 431.

³⁰ Thomas Buergenthal, *Law-Making in the International Civil Aviation Organization* (Syracuse University Press, 1969), at 8.

³¹ The first two were established according to provisions in the Chicago Convention, Article 54 (d) and 56.

³² See ICAO Doc 1465 C/124 1946, *supra*, note 21, at 4.

³³ This is according to provisions in Article 54 (c) of the Chicago Convention.

³⁴ See ICAO Assembly Resolution A1-7 (no longer in force), *ICAO Resolutions and Recommendations of the Assembly 1st to 9th Sessions* (1947 – 1955)(Doc 7670 1956). See the ICAO Councils action in *Procedures of the Council, 2nd session* Doc 7248 C/839, 14th October 1947, at 17.

greater efficiency in the organization and use of airspace.³⁶ This increased scope of reference did not reflect in any change in the general Joint Support Policy (A1-65, see below) of the Organization. The Joint Support Committee is a specialized organ within the Organization and is supported by the Joint Support Secretariat to assist the Council in performing its duties according to Chapter XV of the Chicago Convention. The Council, however, remains the decision-making body.

Because the provisions of Chapter XV are neither precise nor detailed as to the conditions and implementation and application procedures, they received a further interpretation in the Assembly Resolution A1-65, which is discussed below. The next subjects of the discussion are the Joint Financing provisions of the Convention and the policy of the Organization

1.4 The Legal Regime for the Joint Financing Agreements

The provisions regarding Joint Financing are found in Articles 68 to 76 of the Chicago Convention. Article 68 requires that the States designate the routes to be followed and airports to be used by international air services. According to the sovereignty concept in Article 1, it is to be determined by the relevant State.

Article 68. Designation of routes and airports

Each contracting State may, subject to the provisions of this Convention, designate the route to be followed within its territory by any international air service and the airports, which any such service may use.

Those routes must be compatible with, and fit into the system of routes outside the national boundaries, as they have been established and constructed by navigational aids under the Regional Air Navigational Plans.

³⁵ See FitzGerald *infra*. note 43, at 27.

³⁶ See ICAO Council – 149th Session *Terms of reference and Composition of the Joint Support Committee* (Doc C-WP/10499, 27/9/96), at 2. For the first version see ICAO Council – First Session, Annex A, *Terms of Reference of the Air Navigation, Air Transport, Convention and Joint Support Committees* (Doc 4557, C/551, 7/7/47), at 13. Interestingly in the new terms the reference to “aid” has been replaced by “services.” see the terms of reference in Attachment 7 hereto. The Council approved the new terms of reference on November 13th 1996 at the 4th meeting of the 149th Session.

It seems logical that "ICAO, which is charged by the Convention to develop the principles and techniques of air navigation, foster the planning and development of international air transport, by *inter alia* encouraging the development of airways, airports and air navigation facilities for international civil aviation, should adopt measures to improve air navigation facilities world-wide."³⁷

The substance for the joint financing is in Articles 69 and 70.

Article 69. Improvement of air navigation facilities

If the Council is of the opinion that the airports or other air navigation facilities, including radio and meteorological services, of a contracting State are not reasonably adequate for the safe, regular, efficient, and economical 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. No contracting State shall be guilty of an infraction of this Convention if it fails to carry out these recommendations.

Article 70. Financing of air navigation facilities

A contracting State, in the circumstances arising under the provisions of Article 69, may conclude an arrangement with the Council for giving effect to such recommendations. The State may elect to bear all of the costs involved in any such arrangement. If the State does not so elect, the Council may agree, at the request of the State, to provide for all or a portion of the costs.

The latter Article was a part of Article VII of the Canadian draft and Article VI of the tripartite draft proposed at the Chicago Convention.³⁸ The Article adopts the method of improving ANS facilities through joint financing. It stipulates that if the Council is of the opinion that the airports or other navigational facilities of a contracting state are not reasonably adequate for the safe, efficient and economical operations of the air services, it must consult with that State and other States affected to find a way to remedy the situation and to make necessary recommendations. According to Article 54 (j), one of the

³⁷ R. I. R. Abeyratne, *Legal and Regulatory Issues in International Aviation*, (New York: Transnational Publishers, 1996) at 101.

³⁸ At the Chicago Conference the United States, Canada and United Kingdom draft proposals were compiled into one proposal titled "Section of an International Air Convention relating Primarily to Air Transport" for study and consideration at the Conference see the Chicago Proceedings *supra* note 4, at 418.

mandatory functions of the Council is to report to the Contracting States any failure to carry out those recommendations. Article 70 covers cases where the Council may initiate action without prior request by the Member State.³⁹

A State failing to carry out the Council's recommendations under Article 69 is not be guilty of infringing the Convention and the latter does not provide for any enforcement mechanism in this regard. Every State has its own economic and social structure and its own needs and priorities. The Chicago Convention recognizes the States' differences in that it is not self-executing and it⁴⁰ does not automatically obligate States to act when they are opposed or unable to do so.⁴¹

A Contracting State which needs to improve its air navigation facilities may make an arrangement with the Council to give effect to the Council's recommendations. A State which elects not to bear all of the cost of the Council's recommendations may request that the Council, if it so agrees, provide for all or for a portion of the cost. This does not mean that a State must be financially unable to bear the cost in order to be granted the aid.⁴² Even though a provider State may have minimal need for the facilities for its own operations, their existence may be of a great benefit to other (States and foreign operators), so that the facility will be considered common good.⁴³

The provisions for providing, manning and maintaining the facilities by the Council, as well as the provisions regarding land acquisition, are found in Articles 71 and 72.

Article 71. Provision and maintenance of facilities by Council

On the Joint Financing, see Doc 50, 398, 420, 436, 454 and 485 of the Minutes of Joint Meeting of Subcommittees 1, 2, and 3 of Committee I, and the proposed convention in Doc 161 and 358.

³⁹ See ICAO Doc 4025 *supra*, note 10.

⁴⁰ Iceland is a dualistic state where Conventions and Treaties do not become part of the national law unless the parliament *legislates to this effect*. See Gunnar G. Schram, *Stjórnskipunarréttur* (Reykjavik: Háskólaútgáfan, 1997), at 40, and the Supreme Court decision in Hrd. 1975:601. Also J. G. Starke, *Introduction to International Law*, (London: Butterworths, 1989) at 72. See also, D. S. Morris, "The history and Future of the Chicago Convention" (1998) Forum on Air and Space law, Vol. 12, No. 3, 1 at 19.

⁴¹ This can also be seen in Article 37 on the adoption of standards, where State undertakes as practicable to do so, and in Article 38 on the departure from the standards if they become impracticable to comply with. Many may consider this to be a soft law.

⁴² See ICAO Doc 4025 *supra* note 10, Appendix A, at 17.

⁴³ See Gerald F. FitzGerald, "ICAO and the Joint Financing of Certain Navigation Services" (1986) Annals of Air and Space Law Vol. XI, 17 at 19.

If a contracting State so requests, the Council may agree to provide, man, maintain, and administer any or all of the airports and other air navigation facilities including radio and meteorological services, required in its territory for the safe, regular, efficient and economical operation of the international air services of the other contracting States, and may specify just and reasonable charges for the use of the facilities provided.

Article 72. Acquisition or use of land

Where land is needed for facilities financed in whole or in part by the Council at the request of a contracting State, that State shall either provide the land itself, retaining title if it wishes, or facilitate the use of the land by the Council on just and reasonable terms and in accordance with the laws of the State concerned.

It should be noted that both Articles 70 and 71 refer to the assistance which is provided at the request of the assisted State. The obligation to provide land and title or to facilitate the land's use for the purposes of the financed facilities arises only in Article 72.

Expenditure and assessment of funds are dealt with in Article 73.

Within the limit of the funds which may be made available to it by the Assembly under Chapter XII, the Council may make current expenditures for the purposes of this Chapter from the general funds of the Organization. The Council shall assess the capital funds required for the purposes of this Chapter in previously agreed proportions over a reasonable period of time to the contracting States consenting thereto whose airlines use the facilities. The Council may also assess to States that consent any working funds that are required.

The Article limits the resources available to the Council from the general funds of the Organisation, as set by the Assembly. The Organisation's funds were divided into several funds: the General Fund, from which the operational costs of ICAO were defrayed and which can only be made available by the Assembly, the Working Capital Fund, which is used for designated projects, and the Joint Support Emergency Fund, which temporarily supports the Joint Support schemes. The latter Fund was to be used when there was a danger of a breakdown of services, but only if the Council took no action.⁴⁴ Finally, a separate fund supported by the contributions of interested States was established for the purpose of the Joint Support of Air Navigation facilities.⁴⁵

⁴⁴ ICAO, *Resolutions and Recommendations of the Assembly*, 1st to 9th Sessions (1947-1955), Annex 1, to Assembly Resolution A1-58 on Financial Regulations, Article II on funds, at 47. Resolution A3-12 subsequently abolished the Joint Support Emergency Fund.

⁴⁵ *Ibid.* Article IX on funds for Joint Support of Air Navigation Facilities, at 50.

To conclude, the Council has only funds available for negotiations, conferences and other such expenditures preliminary to the establishment of the Joint Financing projects. The funds to operate the projects must be made available by interested States whose airlines utilize the facilities.⁴⁶ Despite the use of the term “assessed” in the Article, the Council may not require contracting States to pay contributions without their prior consent.⁴⁷

Article 74 deals with technical assistance and utilisation of revenues.

When the Council, at the request of a contracting State, advances funds or provides airports or other facilities in whole or in part, the arrangement may provide, with the consent of that State, for technical assistance in the supervision and operation of the airports and other facilities, and for the payment, from the revenues derived from the operation of the airports and other facilities, of the operating expenses of the airports and the other facilities, and of interest and amortization charges.

In the case of a technical assistance on behalf of the Council, the Article permits the Council to be compensated for the expenses, including interest and amortization, from revenues derived from the operations.

Articles 75 and 76 deal with the taking over of facilities from the Council and the returning of funds.

Article 75. Taking over of facilities from Council

A contracting State may at any time discharge any obligation into which it has entered under Article 70, and take over airports and other facilities which the Council has provided in its territory pursuant to the provisions of Articles 71 and 72, by paying to the Council an amount which in the opinion of the Council is reasonable in the circumstances. If the State considers that the amount fixed by the Council is unreasonable it may appeal to the Assembly against the decision of the Council and the Assembly may confirm or amend the decision of the Council.

Article 76. Return of funds

Funds obtained by the Council through reimbursement under Article 75 and from receipts of interest and amortization payments under Article 74 shall, in the case of advances originally financed by States under Article 73, be returned to the States which

⁴⁶ Current expenditure is now defined in ICAO's Financial Regulation (Doc 7515/10 1999).

⁴⁷ See ICAO Doc 4025 *supra*, note 10, at 17.

were originally assessed in the proportion of their assessments, as determined by the Council.

A State can at any time take over facilities and services, which are the subject matter of an arrangement with the Council in order to make improvements. The Council shall be reimbursed by an amount, which it considers reasonable, but it shall likewise return the funds that have been assessed to accommodate the arrangement to the States. The amount can be appealed to the ICAO Assembly.

1.5 General Conditions for Establishment of Joint Financing

The Joint Financing provisions are not mandatory but they authorize the Council and the States concerned to enter into such an arrangement. States are not obligated to initiate or enter into such agreements.⁴⁸ However, the Council must consult with States if it deems that navigation facilities are inadequate. The first Assembly passed a Resolution on the Organisation's detailed policy on the Joint Financing and on financial and technical assistance through ICAO.⁴⁹

1.5.1 ICAO's Responsibility for Providing Services

Prior to adopting the policy for Joint Financing and technical aid through ICAO, there were discussions within the Organisation as to what extent it should resume responsibility for operation of the air navigation facilities or execution of such internationally financed projects. According to the Chicago Convention, the Council could, at the request of the State, provide, man, maintain, and administer any or all of the airports and other air navigation facilities including radio and meteorological services to and provide for all or a portion of the costs.⁵⁰ The Joint Support Committee in its report to the Council suggested that contracts for the execution of work should be let in the name of the local Governments and that the Organisation should only be responsible for the approval of

⁴⁸ Gerald F. FitzGerald, *The International Civil Aviation Organization – A Case Study in the Law and Practice of International Organization* (1986), at 16-14.

⁴⁹ ICAO, Assembly Resolution A1-65: *Joint Support Policy, Assembly Resolutions in Force* (Doc 9730, 1998) at IV-1. The policy was developed jointly by the Air Navigation Committee and the Committee on Joint Support and adopted by the Interim Council 21 march 1947.

⁵⁰ Article 70 and 71 of the Chicago Convention.

contracts and supervision of the projects by its technical representatives. The Committee further suggested that the Organisation should not take any responsibility for operating air navigation services directly.⁵¹

1.5.2 Assembly Resolution A1-65 on Joint Support Policy

Despite detailed provisions in Chapter XV of the Chicago Convention concerning improvements of air navigation facilities, their financing and technical assistance, an implementing decision was necessary before they could effectively be applied.⁵² The policy was developed by the Air Navigation Committee and the Committee on Joint Support jointly, and adopted by the Interim Council on March 21, 1947.⁵³ The policy was reviewed and slightly amended by Commission No. 6 (Financial and Technical aid through ICAO) and approved at the 1947 Assembly. It has remained unchanged since.⁵⁴ According to Resolution A1-65, the main substance of the Assembly policy is as follows:⁵⁵

That financial and technical aid through ICAO for furthering the provisions of air navigation facilities and services adequate for the, safe, regular, efficient and economical operation of international air services will be rendered, under the terms of Chapter XV of the Convention, in accordance with the basic principles and general policy laid down in Annex 1 to this Resolution.⁵⁶

The Annex is divided into four parts: 1) Objectives of financial and technical aid 2) Terminology 3) Basic principles, and 4) General policy.

⁵¹ ICAO, *Report by the Chairman of the Committee on Joint Support to the Council on the problem of responsibility of provisions and operations of air navigation services* (Doc 2242 JS/3 6/11/46).

⁵² FitzGerald 1 *supra*, note 43, at 21.

⁵³ See ICAO, *Interim Council –Seventh Session, Report to the Interim Council by the Chairman of the Air Navigation Committee and the Chairman on Joint Support of Air Navigation Services* (Doc 2947 C/346 15/3/47).

⁵⁴ A few minor changes were made in the policy by the Assembly, see ICAO, Doc 4025 *supra* note 10, at 1 Articles 3.3, 3.12 of Annex 1.

⁵⁵ ICAO, Assembly Resolution A1-65 *supra*, note 49, at IV-1.

⁵⁶ *Ibid.*

A. Objectives of financial and technical aid are aimed at furthering the provisions of air navigation facilities and services. The aid is to enhance or provide services and facilities adequate for the safe, regular, efficient and economical operations of international air services in areas of undetermined sovereignty, on the high seas, and territories of States not undertaking the provisions of the required services.⁵⁷ This formulation successfully ended the debate within the Organisation concerning its competence outside of the Member States territories.⁵⁸ It confirmed the Interim Council and the Interim Assembly's interpretation of Article 69.⁵⁹ The aid is to support airports and ground aids, ATC, meteorological services, search and rescue services and telecommunication and radio aids for air navigation.

B. The financial and technical aid is to be generally rendered on the bases of voluntary action. The consent of the assisted State, contributing States and ICAO to the extent of its participation is a prerequisite for the aid. The assisted State must ask for such assistance, as stipulated in Articles 70 and 71. In the case of the aid to Iceland, this request came forward in March 1946 at the Dublin Conference and formally from the Government of Iceland on May 16, 1947, during the first session to the ICAO General Assembly. The assisting States must consent to their contribution to a joint financing scheme. It is unlikely that the Assembly could levy a compulsory contribution on States without their prior consent.⁶⁰

C. The aim of the aid through ICAO is to provide *no more* than adequate services and facilities to meet the requirements of the standards set by the Annexes to the Chicago

⁵⁷ *Ibid* Article 1 of Annex 1.

⁵⁸ See the memorandum from the chairman of Commission No. 6 (Technical and Financial Aid through ICAO) to chairman of Commission 4 (Legal), ICAO, (Do 4103, 1947) and the reply in (Doc 4228, 1947) and again in (Doc 4025, 1947, Appendix A). This resulted in the Commission's recommendation to the Assembly, as reflected in Resolution A1-65 1(2), that the Council should draft an amendment to Chapter XV of the Convention, to extend explicitly the provisions of Chapter XV to include areas of undetermined sovereignty. No action has been taken on this subject so far by the Council.

⁵⁹ See ICAO, Doc 4025, *supra*, note 10.

⁶⁰ FitzGerald *supra*, note 43, at 29

Convention.⁶¹ The Council is a body responsible for the evaluation of the adequacy of existing facilities and services and other requirements, as well as for their implementation.⁶² The adequacy test is whether the facility or services meet the requirements of international air services as established from time to time by the relevant ICAO standards, recommended practices and procedures.⁶³ This would apply both to the existing and contemplated facilities determined by the relevant RAN plan.⁶⁴

D. All possibilities of direct financing must be exhausted before a State may apply for aid.⁶⁵ For this purpose, the Council in its negotiations with the International Bank for Reconstruction and Development was able to persuade the Bank to consider loans for the Joint Financing programs. However, the Bank was only willing to consider the financing of capital expenditure, but not operational costs.⁶⁶ The exhaustion of other possibilities of direct financing by a State was further stressed in the Assembly's Resolution A16-10. In the Resolution, the Assembly reminded the Contracting States that they should explore all other means of implementing Regional Plans, including, operating agencies, technical assistance and other means compatible with the Chicago Convention, before they apply for Joint Financing through ICAO.⁶⁷ The Resolution confirms that the availability of the Joint Financing method is a measure of the last resort.

E. The Council is entitled to initiate a collective action, on the high seas or in areas of undetermined sovereignty, if or when required, and to supervise the expenditure of funds

⁶¹ ICAO, Assembly Resolution A1-65 *supra*, note 49, Article 3.3 of Annex 1.

⁶² *Ibid.* Article 3.2 of Annex 1.

⁶³ See ICAO, *Joint Financing-ICAO Practice with respect to Article 70*, (Doc C-WP/3924, 28/1/64) Appendix D, at 47.

⁶⁴ *Ibid.* at 44.

⁶⁵ ICAO, Assembly Resolution A1-65 *supra*, note 49, Articles 3,1 to 3.3 of Annex 1. This policy must have dismayed the Greek Government in their attempt to get Joint Financing through ICAO for Ellinikon Airport. The Organization suggested that the Greek Government applied to the International Bank for Reconstruction and Development for a loan to carry out the necessary work at the Athens Airport. See *e.g.* ICAO, *Report to the Interim Council by the Chairman of the Joint Support committee* (Doc. 2235 JS/2 1946), at 2.

⁶⁶ ICAO, *Review of PICA Activities*, (Doc 4023, A1-P/3, April 1, 1947) at 10

⁶⁷ ICAO, Assembly Resolution A1-65 *supra*, note 49, Article 2, of Annex 1.

to ensure its most economical use.⁶⁸ If the Council considers the aid through ICAO necessary, it may bring the case to the notice of the Contracting States and, if they are willing to participate, the Council may convene a conference with the objective of reaching an early decision on the matter.⁶⁹

This raises the question whether ICAO has a monopoly to administer and co-ordinate this type of schemes outside of national territories. Such monopoly most likely does not exist since the policy states, in particular, that financial and technical aid through ICAO does not prevent or exclude joint action by Contracting States without recourse to ICAO.⁷⁰

F. In its finance policy, the Council will consider the appropriate methods of financing, but, in general, the States benefiting from the facilities or services are the ones to furnish such financing collectively. Operation and maintenance costs are born by the supported State as far as it is practicable. The possibility of user charges has been introduced, but if the supported State introduces such charges, it is to be levied against all costs, including the ICAO's cost of the arrangement.⁷¹

G. The policy in Resolution A1-65 included additional provisions on the construction, operation and maintenance of navigation facilities, training of personnel and procedures for the application.⁷² The implementation policy of Resolution A1-65 has remained unchanged so far.

Additionally, the Assembly has adopted several other Resolutions concerning this issue. In Assembly Resolution 14-37: *Increased Participation by "User States" in the Joint Financing Agreements*, the Assembly urged the States that use the jointly financed

⁶⁸ *Ibid.* Articles 3,9, of Annex 1.

⁶⁹ *Ibid.* Articles 4.4.2 and 4.4.3 of Annex 1

⁷⁰ *Ibid.* Article 1, of Annex 1. See e.g. ICAO Satellite Distribution System (SADIS) Cost Allocation and Recovery (SCAR) Scheme for Information Relating to Air Navigation. The SADIS is financed by 13 States (mainly European) on a voluntary cost-sharing bases. The program is administered by a Cost Recovery Administrative Group, which assesses the states for the annual contribution and audits the cost.

⁷¹ *Ibid.* Articles 3.9, 4.1.5 and 4.1.7, of Annex 1.

services, but do not contribute to them, to accede to the Agreements. In Assembly Resolutions 14-14 and 14-19 (no longer in force), which dealt with the need to make use of joint financing in order to obtain implementation of Regional Plans, the Assembly urged the Council to examine such possibilities where economically justified. In Assembly Resolution 15-5, the use of joint financing as means of implementing Regional Plans was downgraded.⁷² Resolution 15-5 has been consolidated into Resolution 16-10: *Economic, financial and joint support aspects of implementation*, where the Assembly urged users and provider States to consider the economic justification of air navigation facilities, to the extent that requirements should be met without entailing costs disproportionate to the benefits derived. The Resolution otherwise repeats the policy statement, discussed in section E above, regarding the exhaustion of other possible means of financing facilities and services before applying to ICAO under Chapter XV.

The ICAO Secretariat has developed what it refers to as prerequisites for successful application of the joint financing concept.

A number of prerequisites are required for the successful application of the joint financing concept:

- 1) a clear description of the project and its objectives, which should be to facilitate (or make possible) the establishment of an air navigation facility or service, and to reduce the cost for each participant;
- 2) a clear identification of the services to be jointly financed;
- 3) a clear definition of the responsibilities of the different partners who would agree to participate (in this regard involvement of IATA as representative of the users would be useful);

⁷² *Ibid.* Articles 4.2, 4.3 and 4.4, of Annex 1.

⁷³ See FitzGerald *supra*, note 43, at 32.

4) simplicity and flexibility of the arrangements which and be adapted to the circumstances of interested States and allow efficient implementation-("administrative agreements" to the extent possible); and

5) equitable recovery of costs, including administrative costs, through user charges, as well as consistency in general with the Statements by the Council to Contracting States on Charges for Airports and Air Navigation Services (Doc 9082).⁷⁴

The Joint Financing policy is silent as to the termination of the aid. It does however stipulate that ICAO will exert every effort to assist a supported State in ~~exercising~~ its right under Article 75 of the Chicago Convention, taking over facilities and services and discharging its obligations entered into with the Council.⁷⁵

The policy underlines that collective action should be initiated by ICAO only if necessary. Secondly, ICAO shall satisfy itself in every case that circumstances actually require financial and technical aid. Thirdly, ICAO shall assure the contributing States that their funds will be expended in the most economical manner.⁷⁶ The Joint Financing should only be applied when actually required, and funds collected are to be used in the most economical manner in providing facilities and services. The Joint Financing is an "aid" for a State unable to finance its services and facilities, and a method of how to implement and organize the aid through the Organization. It is not a financing method as such.

The question arises whether Joint Financing should be terminated if any of those prerequisites is not fulfilled. Some of the prerequisites for financing are set only to initiate a Joint Financing program, but others address other aspects such as an economical use of funds. The policy doesn't mention the termination of support, but it clearly permits

⁷⁴ See, ICAO, *Conference on the Economics of Airports and Air Navigation Services* (Montreal, 19 - 28 June 2000) [hereinafter the Economics Conference], The ICAO Joint Financing Arrangements (Presented by the Secretariat) ANSConf-WP/7, 23/12/99, at 3.

⁷⁵ See ICAO, Assembly Resolution A1-65, *supra*, note 49, Article 3.10 of Annex 1. When Commission 6 redrafted the Article it was changed from "States receiving aid through ICAO will exercise the right under Article 75 of the Convention *at the earliest possible date* and ICAO will provide every assistance to this end" (emphasis added). See Doc 4025 *supra*, note 10, at 7. No explanation is found in the minutes of the meetings of Committee 6 for this change.

⁷⁶ *Ibid.* Articles 3.5, 3.6, and 3.8, of Annex 1.

the aided State to terminate the program because its participation depends on its willingness to participate and cooperate in the operation of the funded facilities and services.⁷⁷ The same is true about the willingness of States to contribute funds. The termination of joint financing programs otherwise must depend on the Agreement on which they are based.

According to the ICAO policy, Joint Financing is a measure of last resort to be used only if other possibilities of financing fail. However, during recent ICAO Conferences, ICAO secretariat has prepared recommendations encouraging Regional Planning and Implementation Groups (PIRGs) to take into account the experience in Joint Financing gained in the North Atlantic Region and has attempted to make better known the ICAO personal expertise in this field.⁷⁸ The Council has endorsed a number of recommendations prepared by the Joint Support Committee to make Contracting States and the PIRGs more aware of the joint financing concept as one mean of financing the implementation of the CNS/ATM elements.⁷⁹

The ICAO joint financing scheme has been suggested as means of financing inter alia the implementation of the GNSS. However, Chapter XV of the Chicago Convention deals with the actions of the Council when it considers facilities or services of a contracting State not reasonably adequate for the safe, regular, efficient and economical operations of air services. As a result, financial aid will be rendered only in such circumstances, according to Articles 69 and 70 of the Convention. Chapter XV does not deal with general financing of projects within the ANS sector. For this purpose, the Organization must make use of other provisions of the Convention than those in Chapter XV.

2. The Early Projects of Joint Financing

2.1 General

Prior to World War II, air traffic services were in the initial stages of development. In Iceland, air navigation facilities and services were almost non-existent, at least there was

⁷⁷ *Ibid.* Articles 3.7, of Annex 1.

⁷⁸ See ICAO, Economics Conference ANS Conf-WP/7, *supra*, note 74, at 3.

nothing that could be described as international air traffic service. This state of affairs was soon to be transformed, in response to the demands of the Second World War. Iceland was occupied by British armed forces in May 1940, believed to be timely ahead of the Germans. Soon after the occupation, the British military built an airport in Reykjavik, to be followed by the Americans who constructed another one at Keflavik, a necessity for the immense increase in military air transport. These airports were indispensable stepping-stones for ferrying bombers and transport planes to Europe during the War years and civilian transport planes after the War. The transport aircrafts at that time were at the mercy of weather conditions and primitive navigational means. This was making direct crossing between Europe and North America often difficult or forcing a refuelling stop in Goose Bay, Gander, Narsarssuaq (Blue West), Keflavik, Reykjavik, Shannon or at any of the Scottish airports. The U.S. and British military had established services on both sides of the Atlantic, in Greenland and Iceland to be used both by military and civilian flights. A communications centre was established at Reykjavik Airport, later to be moved to Gufunes, for oceanic communications and distribution of aeronautical messages through fixed networks and radios, first mainly using the Morse code. During the war and until 1946 the British Royal Air Force provided the limited air navigation services to the increasing air transport traffic, transiting the area. At the end of the War, the limited services that were available were through the military was discontinued. Only a fraction of the air traffic transiting the area was originated in or out of Iceland.

2.2 Joint Financing of North Atlantic Ocean Stations

Three European States, Germany, Great Britain and France, had prior to the World War II operated a few weather observation ships in the Atlantic, the numbers were increased drastically during the War. The original purpose was to undertake meteorological observations and forecasting and to retransmit the information to merchant ships in the area. This weather information became no less important for

⁷⁹ *Ibid.*

aircraft operating over the North Atlantic.⁸⁰ At the end of the War the number of weather ships decreased rapidly again and posed the question of how their services could be maintained and financed for peacetime purposes. At the Dublin Conference, convened by PICAO as mentioned above, it was agreed that the transatlantic aviation was the main beneficiary of the ocean stations operations. The Conference recommended that thirteen ocean weather observation stations should be maintained for the safe, regular and economic air traffic across the North Atlantic Ocean.⁸¹ This was in line with earlier recommendations of the International Meteorological Organisation (IMO).⁸² The justification *inter alia* was based on the calculations showing that the increased regularity of scheduled Atlantic air operations would save approximately twice the annual cost of operating the Oceanic Stations, excluding the increase in the safety factor of the transatlantic operations.⁸³ An International Agreement on the North Atlantic Ocean Weather Stations was signed at a conference in London in September 1946.⁸⁴ The agreement *inter alia* established joint financing of the Ocean Weather Stations where some of the participating states provided vessels and others monetary funds. This was the first agreement of seven. The agreement imposed duties on ICAO in the form of technical supervision and administration of monetary contributions from the participating States.⁸⁵ The program proved very useful but outlived its usefulness for air transportation, replaced by modern technology and was terminated as such in June 1975. The World Meteorological Organisation assumed responsibility for administration of the revised program in July 1975.⁸⁶

⁸⁰ Gerald F. FitzGerald, "ICAO and the Joint Financing of Certain Navigation Services" (1987) XII Annals of Air and Space Law 33 at 33.

⁸¹ *Ibid.* at 35.

⁸² ICAO, *Conference of North Atlantic States on Ocean Weather Observation Stations on the North Atlantic* (Doc. 2136 C/235, 1 October 1946), at 3.

⁸³ See ICAO, Doc 1465 C/125 1946, *supra*, note 21, at 2.

⁸⁴ ICAO, *Final Act and International Agreement on North Atlantic Ocean Weather Observation Stations*, signed at London, on 25 September 1946, (Doc 2136-C/235) [hereinafter the NAOS Agreement].

⁸⁵ *Ibid.*

⁸⁶ FitzGerald 1, *supra*, note 43, at 53.

2.3 The Loran Station at ViK

During the War years the British military operated and maintained Loran air navigation station at Vík í Mýrdal (Vik).⁸⁷ The Loran station at Vik was the only long-range air navigation aid across the North Atlantic, and was a part of a chain of such stations. At the end of the War the station was handed over to the Icelandic Government. The Government by reference to the fact that Iceland derived no direct benefit from its operation and that the Station was transmitting on frequencies interfering with fishing vessels, intended to cease its operation.⁸⁸ The loss of the Loran station would have had serious effects for the air services operating over the North Atlantic. The Interim Council asked the Icelandic Government to continue its operation while it considered the problem. At the 1946 Dublin Conference, the Icelandic Government declared that it would be unable to maintain the facility without external funding. In April 1947, a provisional agreement was signed on financing arrangement for the Loran Station between the Government of Iceland and six States to operate the station. According to the Agreement, ICAO Council administrated the agreement, collected the operational funds and provided technical assistance to operate the station.⁸⁹ The Loran station was subsequently included in the Joint Financing Agreement in 1953.⁹⁰

3. Joint Financing Arrangements of Air Navigation Services Prior to 1956

3.1 General

The 1946 Dublin Conference recommended that the Icelandic Government should provide an Area Control Centre (ACC) at Reykjavik and certain telecommunication and

⁸⁷ Loran navigation was a position determination based on measuring time difference between signals received from two synchronized Loran stations. The signals were displayed on a Cathode tube and position lines had to be plotted on special maps for that purpose.

⁸⁸ See Communication from the Icelandic authorities to ICAO Council reproduced in ICAO Doc 2235 JS/2, *supra*, note 65, and Doc 2946-C/345 *infra*, note 117, Appendix II.

⁸⁹ See Council, *First Session, Agenda Item 9: Report on ICAO Responsibilities Regarding Joint Support of the Icelandic Loran Station*, June 6 1947, (Doc 4413 JS/501). The participating States were Canada, France, Iceland, the Netherlands, United Kingdom and the United States

⁹⁰ See ICAO, *Action of the Council, 15th Session*, 29 January – 2 April 1952, (Doc 7283-C/842, 1952) at 15.

meteorological services for the North Atlantic Region.⁹¹ Iceland accepted the responsibility to provide air traffic services in Reykjavik FIR⁹² and the recommendations were approved by the PICAO Council⁹³ on 17 April and 9 May 1946. At the Dublin Conference, the Icelandic delegation stated that it would be unable to provide the recommended services without financial aid.⁹⁴ However, in 1946, Iceland took over the air traffic control, communication services and the meteorological observations and forecasting, from the British and proceeded to implement the recommendations of the Dublin Conference. At the first session of ICAO's General Assembly in 1947, the Icelandic Government submitted a formal request for technical and financial aid to provide the services with reference to Chapter XV of the Chicago Convention. "The Council, at its meeting of 25 June 1947, reached the conclusion that the request made by Iceland constituted a *prima facie* case for financial and technical aid to be rendered through the Organisation under the provisions of Chapter XV of the Convention."⁹⁵

An ICAO mission was sent to Iceland to report on the services, for which the aid was requested, and its conclusion was that they "[...]were necessary for the safe operation of international air services in the North Atlantic Region,..."⁹⁶ ICAO's Council directed the report to the Second North Atlantic Regional Air Navigation Meeting in Paris 1948 and convened a conference on the issue, to be held following the second General Assembly session in Geneva 1948. At that time, the Icelandic authorities had informed the Joint Support Committee that if financial aid would not be forthcoming it would discontinue the air navigation services. To put this in statistical perspective, the number of Icelandic

⁹¹ ICAO, *Report on the Conference on Air Navigation Services in Iceland*, Geneva, 8-26 June 1948, ICAO (Doc. 7000-JS/550, 1950) [hereinafter the Geneva Report], at 7. There was not a consensus over the recommendation, both United Kingdom and Canada wanted to divide the area between each other, but Iceland was strongly supported by USA, see, Guðjón Guðmundsson, "Tekjur af flugumferðarþjónustu gætu aukist verulega" *Morgunblaðið* (newspaper, 5 December 1995). An interview with Bergur Gíslason one of the Icelandic delegates at the Geneva Convention.

⁹² See the terms of Standard 2.1.2 of Annex 11 *supra*, note 12.

⁹³ *Interim Agreement of the International Civil Aviation*, (Doc. 2187) [hereinafter PICAO]. In reference to documents no distinction will be made between ICAO and PICAO and they will be referred to as ICAO Doc.

⁹⁴ Geneva Report, *supra*, note 91, at 8. See also ICAO, Doc 1466 C125, 1946, *supra*, note 16, at 4.

⁹⁵ *Ibid.* at 8.

⁹⁶ *Ibid.* the missions visited Iceland for two weeks in December 1947.

originated air transport crossings, were 0.15% in 1949 and 0.6% in 1950 of over ten thousand crossings over the North Atlantic.⁹⁷

Prior to the Geneva Convention, representatives in the Council from States in the North Atlantic Region met in Montreal and reached a tentative agreement on a number of points, including the financing of services, which was presented at the Geneva Conference.⁹⁸ The second North Atlantic Regional Air Navigation Meeting held in May 1948 in Paris confirmed the necessity of the air navigation services for safe and regular operations in the North Atlantic.⁹⁹ At a Conference held in Geneva in June 1948 by the Contracting States in the North Atlantic Region and sponsored by ICAO, an agreement was reached for financial and technical aid for air navigation services in Iceland.¹⁰⁰

For the purpose of further discussions of the Agreement it should be noted that arrangements on Joint Financing in the North Atlantic were made by both the Icelandic Government and the Danish Government. These agreements were two separate instruments respectively made between the Icelandic and Danish Governments, on one side, and the financing States, on the other. It should be stressed that since 1956 these Agreements were made in parallel and discussed and amended on joint conferences. The two Agreements are based on the same principles and are implemented in harmony and to some extent concurrently. For example, when user charges were initiated in 1974, a single charge was applied to the services rendered under both Agreements. No further reference will be made to the Danish agreements, unless specifically stipulated.¹⁰¹

⁹⁷ See ICAO Monthly Bulletin January 1952, at 18.

⁹⁸ Geneva Report, *supra*, note 91, at 8.

⁹⁹ *Ibid.* at 9.

¹⁰⁰ ICAO, *Conference on Air Navigation services in Iceland, Final Act*. See, the Geneva Report *supra*, note 91, Appendix A, at 15. The Agreement was signed in Geneva June 26 1948 [hereinafter the Geneva Agreement]. The Contracting States were Belgium, Canada, Denmark, France, Iceland, Netherlands, Norway, Sweden, United Kingdom and United States of America. Switzerland was not a party, but contributed to the Agreement since 1950.

¹⁰¹ For the Danish Agreement, see, *Agreement on the Joint Financing of Certain Air Navigation Services in Greenland (1956) as amended by the Montreal Protocol of 1982*, Doc 9585-JS/681, June 1992.

3.2 The 1948 Joint Financing Agreement

The 1948 Conference on Air Navigation Services in Iceland resolved to render financial aid to the Government of Iceland, pursuant to Chapter XV of the Chicago Convention. A general description of the main structure of the 1948 and the 1956 Agreements and their differences follows below. The thesis then provides more detailed analyses of the still valid 1956 Agreement, since most of the changes and differences between the two agreements are mainly due to the change in the structure of the 1956 Agreement.

3.2.1 The Structure of the Agreements

The 1948 Geneva Agreement was an agreement on the financing of the approved services in the North Atlantic and the method of assessing the Member States in accordance with Article 73 of the Chicago Convention.¹⁰² According to the Article II of the Final Act of the Geneva Agreement and as set forth in the form of a Resolution, ICAO Council and Iceland concluded a separate agreement on the provisions of providing the air navigation services. In the Agreement, Iceland was a provider State and the Council was responsible for assessing the interested States for the necessary funds.¹⁰³ In the Resolution, the conference detailed its recommendations concerning the services and further agreement between ICAO Council and Iceland.¹⁰⁴ This was a novelty, which differed considerably from the previous NAOS Agreement, according to which some States provided direct funding and others vessels and services, but the Council was only an administrative and overseeing party, not a “participant.”

Neither was ICAO Council a party to the Geneva Agreement. This was an extraordinary arrangement where a number of states concluded an agreement for the-third parties to enter in another, separate, agreement thereby taking on various obligations. The Council was certainly familiar with the Geneva Agreement and its undertakings. It therefore subsequently accepted the responsibility under the Agreement, but only as third

¹⁰² Geneva Agreement Final Act, Article II, *supra*, note 100.

¹⁰³ *Ibid.* Article II, 1) a).

party.¹⁰⁵ There was no contractual or direct relationship between the financing States and the Provider State, since the former were only to contribute funds to the Council to finance the contract.¹⁰⁶ Despite the fact that the 1948 joint Financing Agreement was between ICAO Council and Iceland, under separate Agreements, ICAO functioned more like a co-ordinator between the aiding State and the aided State. Why did the Geneva Conference choose this arrangement? FitzGerald suggests that this was done, “to make use of the existing mechanism afforded by Chapter XV of the Chicago Convention to provide the Council with funds to finance the project, and for the Council then to enter into an agreement with the Provider State to govern the operation of the project.”¹⁰⁷ According to Article 70 of the Chicago Convention, a contracting State may conclude “an arrangement with the Council” to give effect to its recommendations stipulated in Article 69. The latter Article only obligates the Council to consult with the State unable to provide adequate services and other States affected, but only to the point of finding means. The Council may further make recommendations in order to remedy the situation. Under the Article, The Council is not required to be directly engaged in the final arrangement, but it may become so engaged if requested by the State.

In the 1956 Joint Financing Agreement this structure was subsequently changed and the Agreement was made directly between the contributing States and the providing State. The change was generally in line with the policy in Assembly Resolution A1-65¹⁰⁸, but also intended *inter alia* to add flexibility to the mechanism of amending the Agreement and to simplify the assessment machinery which was considered extremely cumbersome.¹⁰⁹ The Conference had noted that the ICAO Council had authorized its

¹⁰⁴ See, FitzGerald *supra*, note 80, at 38.

¹⁰⁵ Dr. Edward Warner, President of ICAO Council, convened the Conference. See the Geneva Report *supra*, note 91, at 16.

¹⁰⁶ See Bin Cheng, *The Law of International Air Transport* (London: Stevens & Sons Ltd, 1962) at 80.

¹⁰⁷ FitzGerald 1 *supra*, note 43, at 38.

¹⁰⁸ ICAO, *Report on the Proceedings of the 1956 ICAO Joint Financing Conference for the Revision of the Danish and Icelandic Arrangements* [hereinafter DEN/ICE/1 Report](Doc 7725 JS/562 1956), at 4.

¹⁰⁹ See ICAO, *Review of the Development and Administration of the Existing Danish and Icelandic Joint Financing Arrangements*. Report by the Secretary General, JF/DEN/ICE-WP/10 28 May 1956, Part A and WP/9 8 May 1956. See also FitzGerald *supra*, note 80 at 40. The difficulty in changing the Agreement was evident when additional capital was needed for the building of the new transmitter at Rjúpnað. This created a need to enter into a Protocol to the Agreement with subsequent approval of all the participating States.

President *inter alia* to take any necessary and appropriate action in light of the proceedings at the Conference, including the signing of relevant instruments.¹¹⁰ There was no reference made to this change other than that the agreement should be made directly between the participating parties and “that the President of the Council [should] sign the Agreements on behalf of the Council. Subject to final confirmation of the Council, he would thereby be accepting the duties and responsibilities assigned to it and to the Organisation under the terms of the agreements.”¹¹¹ There is no mention of the co-signing of the Agreement by the President of the ICAO Council in the Agreement itself. Article XIX of the Agreement only refers to the signing of Governments named in the Preamble and provides that the signing should be subject to acceptance by the signatory Governments.

In the new arrangement, the ICAO Council became an administrative and auditing body to the 1956 Agreement, but otherwise the rule *res inter alios acta* applies.¹¹² There is a question whether the Joint Financing Agreement can be changed without the approval of the ICAO Council. Article 35 of the Vienna Convention on the Law of Treaties states:

An obligation arises for a third State from a provision of a treaty if the parties to the treaty intend the provision to be the means of establishing the obligation and the third State expressly accepts that obligation in writing.

Article 37 (1) of the Vienna Convention continues on the revocation or modification of obligations or rights of third States:

When an obligation has arisen for a third State in conformity with article 35, the obligation may be revoked or modified only with the consent of the parties to the treaty and of the third State, unless it is established that they had otherwise agreed.¹¹³

¹¹⁰ See the Geneva Report *supra*, note 91, at 12.

¹¹¹ *Ibid.* at 5. See also DEN/ICE/1 Conference JF/DEN/ICE-WP/9.

¹¹² See Cheng *supra*, note 106, at 81.

¹¹³ *The Vienna Convention on the Law of Treaties* (Signed at Vienna 23 May 1969, entry into force 27 January 1980). Note: According to Article 4 of the Convention (non-retroactivity of the Convention), it only applies to treaties concluded after the entry into force of the Convention, but the Convention is considered to be mostly a codification of the existing customary rules of international law of treaties. See

In light of the rights and responsibilities imposed on, and accepted by ICAO and considering the fifty-year history of the Agreement, it is unlikely that it could be changed without the Council's consent.¹¹⁴

3.2.2 The 1948 Agreement

The Geneva Agreement contained our parts. The first part was the Final Act that reflected the agreement itself and recommended that the ICAO Council should enter into an agreement with Iceland in order to give effect to the aid provided by the signatory States, to provide services in accordance with the agreement.¹¹⁵ The Council was to assess the States, parties to the agreement, for the cost of the services, in accordance with Article 73 of the Chicago Convention and as stipulated in the agreement. Each State was to pay proportionately to their air transport use of the services, as calculated by the Council, but Iceland was to bear 17,5 % of the cost in consideration of the aeronautical and indirect benefits from the arrangement.¹¹⁶ The Agreement stressed the duties of the Council to review the assessments taking into account, on one hand, the aeronautical benefits, which are basically the actual number of crossings of aircrafts from each State, and, on the other hand, the non-aeronautical benefits, which States might derive from the services.¹¹⁷ ICAO was to be reimbursed for its cost of the Agreement.¹¹⁸ The Agreement additionally contained three Annexes, which described the services to be rendered (Annex I), provided basis for computation of annual cost (Annex II), and listed buildings and equipment (Annex III, inventory).

also Articles 35 and 37 of the *Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations* (21 March 1986) which applies *mutatis mutandis*.

¹¹⁴ See Cheng, *supra*, note 106, at 82;

¹¹⁵ The Geneva Agreement, *supra*, note 100, Article II, 1) a).

¹¹⁶ *Ibid.* Article II 2) and 3).

¹¹⁷ *Ibid.* Article II, 3 a) ii), 4 a) iii). In the Vik Loran Station Agreement Iceland agreed to bear 5 % of the cost, claiming that no direct benefits were derived from its operation for Iceland. See, ICAO, *Interim Council – Seventh Session, Report from the Chairman of the Committee on Joint Support of Air Navigation Services on the Case of the Financing of the Icelandic Loran Operation* (Doc 2946-C/345, 13/3/47), at 4. If a non-aeronautical importance of a facility has been considered secondary, the Council has referred the matter to other bodies, such as the World Meteorological Organization, see, C-WP/3924 *supra*, note 63, at 44.

¹¹⁸ *Ibid.* Article II, 3 b) i).

On June 26, 1948, the Council accepted the recommendations under the Final Act of the Geneva Agreement by way of a Resolution to this effect.¹¹⁹ The Agreement between the ICAO Council and the government of Iceland was concluded on September 16, 1948.¹²⁰ The Agreement had four sections. The first one was a detailed arrangement between the Government of Iceland and the ICAO Council, followed by three Annexes which were identical to the Annexes to the Geneva Agreement.

The Agreements confirmed that the services offered by Iceland, such as air traffic control, and communications and meteorological services, were considered indispensable for aircraft flying in the region. The services were necessary due to the weather systems congesting the most favourable routes and due to continuous increase in air transport crossing the North Atlantic.¹²¹ The direct benefits from the services to the overall economy of the flights were proved in the early years of the transatlantic operations.¹²²

Prior to embarking on the analysis of the 1956 Agreement, it is worth noting two comments made by States participating in the Geneva Conference. The first comment made by the Canadian delegate and supported by the French delegate questioned the necessity for an Area Control Centre (ACC) in the North Atlantic and urged ICAO to conduct a further study of this issue. The second comment, a joint statement by Danish, Norwegian and Swedish delegates, which urged the study of the practicability of transferring the responsibility over the services to an existing, adjacent ACC in order to reduce or avoid joint support costs. The comments are relevant today not only in reference to the services in the North Atlantic, but also to the ANS in general. First and foremost, they reflect, the pressure on the economics and operational feasibility of the Joint Financing of the ANS in Iceland. This pressure increased and surfaced at all subsequent Joint Financing Conferences.

¹¹⁹ The Resolution can be found in Appendix D to the Geneva Report *supra*, note 91, at page 54 or in ICAO Doc 6133 C/691, at paragraph 69.

¹²⁰ ICAO, *Agreement Between the Government of Iceland and the Council of the International Civil Aviation Organization on Air Navigation Services in Iceland 1948* (Doc 6143 JS/535) [hereinafter the 1948 Joint Financing Agreement].

¹²¹ See Abeyratne *supra*, note 37, at 100. Also, the Geneva report *supra*, note 91, at 7.

¹²² See the Geneva Report *supra*, note 91, at 7.

3.3 The Rjúpnahæð Protocol

In 1953, a new transmitter building was considered necessary. The Council and the participating states, acting under the provisions on new capital expenditure in the 1948 Joint Financing Agreement, entered into a Protocol to amend the 1948 Agreement. The financing for this project was made by a loan provided by the International Bank for Reconstruction and Development, which was amortised by the participating States.¹²³

4. The Joint Financing Agreements in Iceland from 1956 to 1982

4.1. The Joint Financing Agreement in Iceland 1956

4.1.1 General

In 1956, ICAO Council invited interested States to a Conference in Geneva to discuss arrangements with Iceland and Denmark on joint financing of navigation services in the North Atlantic. The conference was convened for the purpose of simplifying and reviewing the facilities and services provisions in the Joint Financing scheme, as discussed above, reviewing the existing charges, and considering a possibility of introducing user charges, as well as other, structural changes to the Agreement. Several factors necessitated the change. The dual basis established for the administration of the program by on the one hand the Final Act, signed by the financing States, the Agreement between the Council and Iceland as Provider State on the other, was considered to hamper the development of the schemes. It was therefore considered difficult to achieve full consistency between the implementation of the two instruments. Another problem was the inflexible amending mechanism of the Final Act of the Geneva Conference Agreement, which required a passing of a new agreement in case of the amendment. According to the Agreement a individual maximum on assessments was set for each State, if it was to be exceeded the State consent was required. Due to increase in price levels, finance of new services, devaluation of currencies and variations in numbers of crossings this maximum was frequently exceeded calling for an ongoing burdensome

¹²³ FitzGerald, *supra*, note 80, at 39.

consent process. As a result, the Council and the Secretariat was frequently occupied in the extensive and laborious tasks of co-ordinating the Contracting State consent.¹²⁴

In the end of the Conference, the participants entered into the *Agreement on the Joint Financing of Certain Air Navigation Services in Iceland*,¹²⁵ a multilateral agreement directly between the Government of Iceland and the signatory States to jointly finance the ANS.¹²⁶ The Secretary General of ICAO was to supervise the operation of the services.¹²⁷ Like its predecessor, the Agreement had four parts. The first part contained the main Agreement with three Annexes: Annex I on services to be provided, Annex II on the inventory, and Annex III on detailed financial provisions. The Council was to initiate the termination of the 1948 Joint Financing Agreement from the date when the new Agreement came into force. The new agreement was considered to be a continuation of the previous one and all the existing facilities and services were to be brought under and governed by the new agreement from January 1, 1957.¹²⁸ Below is a study of the main provisions of the 1956 Joint Financing Agreement accompanied with a partial analysis of some of its Annexes.

In its statement, the French Delegation questioned the effectiveness of the mechanism proposed by the Conference whereby the Council was to carry out a detailed administration of the Joint Financing Agreement. The Delegation emphasised that, in its opinion, there was nothing in Chapter XV of the Chicago Convention that obligated the Council to take on these tasks and that an ad hoc committee consisting of the Representatives of the Contracting States and the Secretary General could have shared the tasks in most cases.¹²⁹ The Conference did not support this view.

¹²⁴ See ICAO, DEN/ICE/1 Conference JF/DEN/ICE-WP/10, May 28th 1956, at 2.

¹²⁵ *Supra*, note 5.

¹²⁶ The signatory States were Belgium, Canada, Denmark, France, Federal Republic of Germany, Iceland, Israel, Italy, the Netherlands, Norway, Sweden, Switzerland, United Kingdom and United States of America.

¹²⁷ Article IV of the Joint Financing Agreement.

¹²⁸ See the DEN/ICE/1 Report *supra*, note 109, at 14.

¹²⁹ *Ibid.* at 17.

4.1.2 Procedure for Amending the Agreement

The 1956 Joint Financing Agreement was a formal instrument adopted at a conference of authorized representatives of governments and properly ratified by each signatory state. The Contracting Governments agreed on the necessity to make a separate agreement on the procedure for amending to the principal Agreement.¹³⁰ Since 1956, the States called three more Conferences in 1973, 1977 and 1982. Aside from many changes to the mechanism of the Agreement's implementation made at the 1972 and 1977 Conferences, no textual changes were made to the Agreement. All changes were considered within the limits of interpretation or application of the text in the existing 1956 Agreement. According to the adopted procedure, the ICAO Council, at the request of the Member States or upon recommendations by previous Conference, would convene a conference. The Council would prepare an agenda for the Conference's approval, subject to any change necessary, but it was up to the Conference to determine its working methods and procedures.¹³¹ The Joint Financing Conference would then produce a set of recommendations to the Council, and the Council's response to these recommendations would be later published as a supplement with the Conference documents.

At the 1982 Conference, proposals were made for some textual amendments, including the changes in the procedure for amending the Agreement. Those changes will be discussed in the section on the 1982 changes to the Agreement.

The 1956 Agreement provided for a flexible adaptation of changes to the already existing financial arrangement without convening a new conference. The total cost of the services was set at a fixed annual amount. In the case of new capital expenditures necessary for the proper operation of the services, the limit could be exceeded with the approval of the Council and the subsequent approval of the contributing State. This, in fact, meant that the Council approved the expenditure and sought the approval of the

¹³⁰ Article XXVI of the Joint Financing Agreement. Similar provisions, which were not found in the Final Act of the Geneva Agreement, were included in Article 17 of the 1948 Joint Financing Agreement between the Council and the Icelandic Government.

¹³¹ See *e.g.* DEN/ICE/2 Conference, Provisional Rules of Procedure, DEN/ICE/2-WP/2, 28/6/72.

Contracting States subsequently.¹³² In order to establish, operate and maintain new services, the approval of the Contracting Governments responsible for ninety percent or more of the total assessments was required, but only those consenting would contribute to the additional new services.

4.1.3 The Main Provisions of the 1956 Joint Financing Agreement

The main provisions of the 1956 Joint Financing Agreement are as follows:

Article II: The Government of Iceland shall provide, operate and maintain the Services and, in consideration of special benefits derived from the Services, shall bear five per cent of the approved actual cost thereof.

Article III: 1. The Government of Iceland shall operate and maintain the Services without interruption, in an efficient manner and with the greatest degree of economy consistent therewith and, so far as practicable, in accordance with the applicable Standards, Recommended Practices, Procedures and Specifications of the Organization.

The Icelandic Government was required to provide, operate and maintain the services, prescribed in Annex I to the Agreement, without interruption, in as efficient and economical manner as practicable, bearing five percent of the cost due to special benefits it derived from the services. This was a considerable reduction from the 1948 Agreement's original seventeen point five percent that subsequently had been reduced to ten percent

Article IV: 1. The Secretary General shall generally supervise the operation of the Services and may at any time arrange for the inspection of the Services, including any equipment used in connection therewith.

Article IV: 4. In the event of any failure by the Government of Iceland efficiently to operate and maintain any of the Services, there shall be consultations between that

¹³² Article V, VI, XIII and XXVI of the Joint Financing Agreement. See also, FitzGerald *supra*, note 80, at 40.

Government and the Secretary General for the purpose of agreeing upon remedial measures.

Article III: 3. The Government of Iceland shall notify the Secretary General immediately of any emergency necessitating any temporary change or curtailment of the Services and that Government and the Secretary General shall thereupon consult on the measures to be taken to minimize any adverse effect of such change or curtailment.

The Secretary General of ICAO was to supervise the operation of the services and advise the Icelandic Government, a change from the 1948 Agreement which granted the Council a supervising role. The Icelandic Government was required to notify the Secretary General of any change, curtailment or failure of the services and to consult him in order to minimise the negative effects. These provisions have been applied twice during the 1970 and 1995 labour disputes between the Icelandic Government and Air Traffic Controllers when the latter resigned from their posts. The disputes were settled before any disruption of the services occurred.

The cost of the services was not allowed to exceed a certain fixed amount, unless the Council or the Contracting Governments would decided otherwise, pending the utilisation.¹³³ The Icelandic Government was required to provide the Secretary General, with the estimated costs of the Services for the following year no later than October 31 of each year. The information regarding the actual cost had to be furnished no later than six months after the end of the year, subject to the ICAO's audit.¹³⁴ The Icelandic Government was to be reimbursed up to nine five percent of the cost by the authorization of the Secretary General following the Council's approval.¹³⁵ The Contracting States were to share ninety five percent of the approved actual cost of the services. The funds were collected by the Organisation, which in turn made payments to the Government of Iceland in the amount not exceeding the amount it was able to collect.¹³⁶ The assessments were to be made in Icelandic "krónur," the arrangement caused serious problems later on

¹³³ *Ibid.* Article V, VI, VII and XIII.

¹³⁴ *Ibid.* Article VIII, later to be changed to 15 of September each year.

¹³⁵ *Ibid.* Article IX.

¹³⁶ *Ibid.* Articles VII, IX and X.

due to high inflation rates in Iceland.¹³⁷ The States shared the cost in proportion to the aeronautical benefit of each Member State that used the services, determined by the number of crossings over the North Atlantic, north of the 40th parallel North.¹³⁸ The 40th parallel was outside of the Icelandic Flight Information Region (FIR), but any aircraft flying north of that parallel was considered to benefit from the services.¹³⁹

As was mentioned before, under the original arrangement, only consenting States would adhere to the Joint Financing Agreement thus bearing the balance of benefits and obligations (contributions). However, there were in fact States (airlines) which derived benefits from the services without contributing to the arrangement. The Agreement envisages that the Council would initiate further consultations to obtain further accessions to the Agreement, as well as further contributions from non-parties.¹⁴⁰ However, Article 71 of the Chicago Convention authorises the ICAO Council to “specify just and reasonable charges for the use of facilities provided.” In Article XIV (1) of the Agreement the Icelandic Government was not permitted to impose any charges for the use of the services without the consent of the Council, except on its own nationals. According to Article XIV (2), the Icelandic Government could not institute user charges, unless requested by the Council.¹⁴¹ As will be discussed further, those charges were to be offset against payments due.¹⁴² The Icelandic Government was not permitted to make any

¹³⁷ *Ibid.* Article XI. The costs were expressed in Icelandic “krónur” but the assessments were calculated afterwards in US dollars or sterling on a devaluated exchange rate of the krónur.

¹³⁸ *Ibid.* Article VII. Paragraph 2 contained a formula for collecting the fees. According to his formula, the Council was to assess the States for advanced payments for the next year before October 1 of each year based on the crossings of the previous year and ninety five percent of the approved actual cost for that year plus ten percent

¹³⁹ It has been established that providers may require all users to pay their share of the cost of providing services regardless of whether the utilization takes place over the territory of the State or not. See Doc 9082/5 *infra*, note 158, paragraph 42, at 13.

¹⁴⁰ Article XX (2) (3) of the Joint Financing Agreement.

¹⁴¹ The Icelandic Authorities collected charges for the use of Class B messages via the AFTN circuits. This was done apparently without the Council’s permission and was considered as an “experiment.” See, the DEN/ICE/1 Report, at 7 and 12. Also, Cheng *supra*, note 106, at 91.

¹⁴² Article XIV of the Joint Financing Agreement. The charging of crossings from the 40th parallel North was considered justifiable since that air traffic benefited directly by the meteorological services and indirectly by the availability of the air traffic and search and rescue services.

international arrangements for the provision, operation, maintenance, development or financing of the services without the Council's approval.¹⁴³

According to Article XXII, the Government of Iceland may terminate the Agreement on December 31 of any year by notice in writing to the Secretary General, given not later than January 1 of the same year. Other Contracting Governments responsible for assessments in aggregate of not less than ten percent of the total cost may terminate the Agreement within the same time frames.

The Agreement was open for accession by the Governments of any States members of the UN or its Specialized Agency. The Council was also permitted to initiate consultations with the Governments that were non-parties to the Agreement but whose aircraft benefited by it, for the purpose of obtaining their accession or making arrangements for their contributions.¹⁴⁴

At the Second Special North Atlantic Fixed Services Meeting in 1959, it was recommended to extend the Joint Financing to cover a lease of a portion of a transatlantic submarine cable linking ATC Centres in the North Atlantic. This was accomplished by using the provisions in Article VI, and for that purpose the ceiling of Article V of the Joint Financing Agreement was raised with the unanimous consent of the contracting States.¹⁴⁵ This meant that an approximately fifty percent increase in the ceiling established by Article V was made without a need for a separate conference or protocol of amendment. This proved the sought-for flexibility of the new Agreement.¹⁴⁶

¹⁴³ *Ibid.* Article XV.

¹⁴⁴ *Ibid.* Article XX.

¹⁴⁵ ICAO, *Annual Report of the Council to the Assembly 1959* (Doc 8063, A13-P/1, 1960), at 53.

¹⁴⁶ See FitzGerald *supra*, note 80, at 45.

4.2 The Second Conference on the Joint Financing Agreements 1973

4.2.1 General

A second conference on the Joint Financing Agreements was held in Paris in 1973 (DEN/ICE/2 Conference).¹⁴⁷ The main issues discussed at the Conference included the possibility of introducing user charges, the legal implications associated with the collection and the Agencies to be charged with the billing and collection of the charges and re-assessment of services.

The non-charging of the services had reflected, in most cases, government ownership of Airlines and support to an industry in the making, but this situation was changing. EUROCONTROL had been established to provide air traffic services in parts of Europe where it was charging for its service.¹⁴⁸ The air transport sector was undergoing a global change as the airlines were in the process of being converted from public to private domain. States were reducing their subsidies and many airlines were maturing from government protection. The air transport industry was less in need of the taxpayer subsidies. Like other industry sectors, the airlines had to pay for ancillary services in the form of user fees. And that was becoming a cost of doing business.

4.2.2 User Charges

User charges were relatively rare phenomenon in the early years of the Joint Finance Agreement. In the Atlantic region, the service was provided to users free of charge. The provisions on user charges were included in Article XIV (2) of the 1956 Joint Financing Agreement. The French Government later proposed that the users should take at least a partial burden of financing the services.¹⁴⁹ The introduction of the charges under the Joint

¹⁴⁷ ICAO, *The Second Conference on 1956 Danish and Icelandic Joint Financing Agreements*, Paris 27 March – 5 April 1973, (Doc 9056. DEN/ICE/2 1973) [hereinafter the DEN/ICE/2 Report].

¹⁴⁸ Maastricht Area Control Centre provides ATS in the upper airspace of Belgium and Luxembourg and parts of Germany in 1972. EUROCONTROL was entrusted to collect user charges for some of its Member and non-Member states through its Central Route Charges Office (CRCO). See on this W. Schwenk & R. Schwenk *supra*, note 17, at 37.

¹⁴⁹ See ICAO, *Principles Concerning Possible Introduction of Charges*, DEN/ICE/1 Conference (Doc JF/DEN/ICE-WP/15, May 16th 1956), at 1.

Financing Agreement or under the provisions in Articles 71 and 74 of the Chicago Convention involved some constitutional questions. The principles underlying the user charges had been considered by the Air Transport Committee¹⁵⁰ and were already being applied at that time (1956) by States.¹⁵¹ There was no further action taken on this issue in 1956, other than to add the provision for possible user charges.

At the 1973 Conference, there were discussions as to whether and to what extent user charges should be introduced to cover the cost of the services. Another issue was whether the decision should be made with reference to Article XIV of the Joint Financing Agreement or with reference to terms outside of the Agreement, for example Articles 71 or 74 of the Chicago Convention. As to the legal implications of establishing user charges, the Conference concluded that the charges would be considered legally imposed provided:

- 1) The Council would make the request to the Icelandic Government in accordance with Article XIV of the Joint Financing Agreement;
- 2) Iceland possessed the necessary legislation for the application; and
- 3) the charges would be laid down in accordance with the principles set forth by the Council in Doc 8718-C/975 or a latter similar document.¹⁵²

The establishment of charges was not considered to infringe Article 15 of the Chicago Convention if the charges were applied on the stated conditions.

An important issue in imposing the user charges was the allocation of cost. There was a significant difference between a joint financing system where the States would cover costs of both aeronautical and non-aeronautical benefits and a user charge system where aviation users could not be charged for non-aviation related services.¹⁵³ This issue had been less important at the previous conferences due to the fact that the States were funding the services. This called for rationalizing and detailed defining of non-

¹⁵⁰ The Committee has published its guidance material the in most recent one is ICAO, *Manual on Air Navigation Services and Economics* [hereinafter the Economics Manual] (Doc 9161/3 3rd ed. 1997). The first one was Doc 7462 April 1954.

¹⁵¹ The Irish Government was charging for use of communication facilities in Shannon and the Canadian Government was collecting for use of Canadian facilities. See, Doc JF/DEN/ICE-WP/15 *supra*, note 149.

¹⁵² See the DEN/ICE/2 Conference Report *supra* note 147, at 2-1. The document referred to is now revised in Doc 9161/3, *supra*, note 150.

aeronautical interests, including services to the military and general aviation, and the overall costs. Military aircraft is deemed state aircraft and is excluded from the scope of the Chicago Convention (Article 3) and ICAO's activities. However, in reference to the military, the 1956 Conference established that through indirect contribution in facilities and equipment the interests were considered in balance.¹⁵⁴

The Conference agreed that user charges should be established for those parts of the services attributable to civil aviation only, that is excluding the military. This was to be done in gradual steps starting at an increase from forty percent to fifty percent in 1976, and in conformity with the principles set by the ICAO Council.¹⁵⁵ The Conference recommended that the cost allocation to aviation users should be hundred percent of Air Traffic Services, thirty percent of the Keflavik Met Office, hundred percent of the Aeronautical Communication and cable service and ninety percent of the Vik Loran station.¹⁵⁶

The Conference considered whether a single charge should be introduced for the whole North Atlantic Region. The "single charge" was considered to be preferable, but impossible to introduce at that stage. The possibility of establishing unified charging system in the region was yet to be examined.¹⁵⁷ However, it was decided to introduce a single charge for the Icelandic and Danish Joint Financing Agreements.¹⁵⁸ The administrative and audit continued to be considered as an additional part of the actual costs of the services to be reimbursed to ICAO from the payments made by the contracting Governments.¹⁵⁹ The part of the ICAO's cost not derived from the interest

¹⁵³ *Ibid.* at 1C-1, Conference Recommendation No. 4.

¹⁵⁴ See e.g. ICAO, DEN/ICE/1 Conference JF/DEN/ICE-WP/20, June 7th 1956.

¹⁵⁵ *Ibid.* at 1A-1. The average cost of crossing per flight, in 1971 was estimated about 43 US dollars. See DEN/ICE/2-WP15, 20/12/72, at 2.

¹⁵⁶ The International Air Transport Association (IATA) criticized the allocation of costs, which it considered arbitrary and only made to facilitate the introduction of a charging system. See, the DEN/ICE/2 Report *supra*, note 147, at 5-3.

¹⁵⁷ *Ibid.* at 1B-1. Conference Recommendation No. 2, and comments by UK on this item in DEN/ICE/2-WP15, 20/12/72, at 1.

¹⁵⁸ The issues of application and determination of the user fees are not part of this thesis. For further on user charges, see ICAO Doc 9161/3, *supra*, note 150, and *Statements by the Council to Contracting States on Charges for Airports and Air Navigation Services* (Doc 9082/5 5th ed. 1997).

¹⁵⁹ Article X (2) of the Joint Financing Agreement.

from the Reserve Fund became a part of the cost basis of the user fees.¹⁶⁰ Since the revenues from the user charges were offset against payments due from each Member State, the amount not recovered was the relevant State's contribution to the Joint Financing Agreement. The introduction of the charging system solved partly the problem of the non-participation States, which airlines were using the services without contributing to the Agreement.

4.2.3 Reassessment of Services

There had been a considerable and important technical development between the 1956 Conference and the Conference of 1973, which called for reassessment of the services.¹⁶¹ The Conference members spent a considerable time was discussing the technical development in the area and whether the services provided by the Reykjavik CTA/FIR were still required, and if so, whether they should continue to be provided by Iceland or from another location.

In reference to the ANS, due account had been taken of this development in the North Atlantic Regional Air Navigation Plan. Other related issues including the delineation of the Reykjavik FIR were referred to the NAT/SPG for its consideration. The review was to be done primarily on the basis of operational considerations.¹⁶² In other sectors of the services, some modifications were made to Annex I,¹⁶³ but most of delegates considered the facilities provided under the Agreement "to be used" and benefiting the users.¹⁶⁴

¹⁶⁰ The Council agreed that the full cost incurred by ICAO for the administration of the Agreement should be recovered through addition of an administrative fee to the user charge and made amendment to Annex III (now section IV) of the Agreement accordingly. See, the *Annual report of the Council – 1992*, Doc 9605, at 41. This is accordance with the Councils policy on charges see Doc 9082/5, *supra*, note 158, at 10.

¹⁶¹ See DEN/ICE/2-WP/20 (Canada), WP/22 and WP/23 (USA), WP/30 (IATA), WP/32 (UK), WP/35 (Finland).

¹⁶² The DEN/ICE/2 Conference Report *supra*, note 147, at 4-2., and Conference Recommendation No. 9.

¹⁶³ *Ibid.* Conference Recommendation No. 10 and 11.

¹⁶⁴ *Ibid.* at 4-10.

4.2.4 The Main Changes 1973

The Icelandic Government was assigned to operate a system of user charges for the services provided. In the beginning, the charges had to be introduced gradually, aiming at forty percent cost recovery and with an increase up to fifty percent in two years. The amount collected from the air transport of each State was credited as the State's contribution to the Agreement. The Icelandic Government could impose additional charges only on its nationals. An imposition of charges on another State could be made only with the consent of the Council.¹⁶⁵ Additionally, the Conference made some modifications to the Services provided in Annex I.

At the Conference, the Icelandic and Danish Governments indicated that they would have difficulties in billing and collecting charges for the services. The main problem was to identify the operators crossing south of the Icelandic FIR, north of the 40th parallel. The solution to this problem was to have the United Kingdom Government act as an Agent in the billing and collecting of the charges instituted pursuant to the Agreement.¹⁶⁶

Interestingly, “[a] charging system administrated by the State providing the facilities which produced sufficient revenue to cover the entire cost of the facilities would in effect be an alternative method of financing the facilities which would then *not require* Joint Financing”[emphasis added].¹⁶⁷ This was a fundamental change in the financing of the services and a distinct alternative to the collective financing established in 1948.

¹⁶⁵ Article XIV of the Joint Financing Agreement. The method of calculating the cost is in Section III – User Charges, in Annex III. User charges were initiated 1 August 1974 after the Council's approval of the Recommendation of the DEN/ICE/2 Conference of 1973. At the Conference, IATA questioned the legal bases for the charges and suggested a contract between carriers and the charging authorities, at 5-3. International Air Carrier Association opposed the change, as highly questionable legally, at 5-6.

¹⁶⁶ The DEN/ICE/2 Conference Report, *supra*, note 147, at 3-1. See Conference Recommendation No. 7. A charge not more than five percent was to be added for this service. This charge was four point fifty eight percent in 1975, three point thirty eight percent 1976 and two point twenty seven percent in 1977. See the 1977 Conference Report at 1c-1. In the Economics Manual, it is emphasized that State remains fully in control of the charges collection function. Such control is to be exercised not only when a State bills and collects the charges itself, but also when it joins forces with other States to establish a collection agency serving groups of States. See, Doc 9261/3 *supra*, note 150, Chapter 2, section 2.32, at 12.

¹⁶⁷ ICAO, *Principles Concerning Possible Introduction of Charges*, DEN/ICE/1 (Doc JF/DEN/ICE-WP/15, 16 May 1956) at 2.

4.3 The Third Conference on the Joint Financing Agreements 1977

4.3.1 General

According to recommendation No. 6 of the DEN/ICE/2 Conference of 1973, the Council was to convene a new Conference (DEN/ICE/3) if it appeared that no unified charging system for civil aircraft crossing the North Atlantic would be established before January 1, 1979. Thus, a third Conference of 1956 Danish and Icelandic Joint Financing Agreement was convened in Montreal in 1977.¹⁶⁸ The main issues at the Conference were the review of the charging system, allocation of costs, participation by non-adherent States, cost limits and administrative expenses.

4.3.2 The Main Changes

The Conference agreed to recommend to the Council that a single user charge for the Joint Financing Services in Iceland and Greenland should be determined before October 1, 1978 as to recover seventy five percent of the Cost of the services, to be increased to one hundred percent for the Year of 1981 and thereafter.¹⁶⁹ Thereby a full recovery through user charges was planned to be accomplished by 1981.

Since the international civil aviation was to bear the full cost of the services, it was necessary to determine which proportion was used by other users, such as military aircraft, general aviation and non-aviation users, like marine users. The conference made no changes to the allocation of the cost, but referred the matter to the Council for further examination.¹⁷⁰

On the issue of participation by non-adherent States, civil aviation operators from 15 States were regularly crossing north of the 40th parallel, but were not participating in the

¹⁶⁸ ICAO, *Third Conference on 1956 Danish and Icelandic Joint Financing Agreement*, Montreal 1-10 March 1977, Report [hereinafter the DEN/ICE/3 Report] (Doc 9196. DEN/ICE/3 1977) at ii-1.

¹⁶⁹ *Ibid.* at 1b-2.

¹⁷⁰ *Ibid.* Recommendation 1a/3 and 1b/1.

Agreement in 1975. This amounted to approximately 8.5 percent of the total crossings.¹⁷¹ Under the Assembly Resolution A1-65, the participation was based on voluntary action, and the Conference recommended that the Council would renew its efforts to obtain greater participation.¹⁷² However, all civil aircraft flying across the North Atlantic paid the user charge whether or not their governments participated in the Agreement thereby reducing the negative effects of non-participation by their governments.¹⁷³ No change has been made concerning the crossings of military aircraft which are generally not charged for the services.

United Kingdom was to continue collecting the user charges.¹⁷⁴ Modifications were made on the services and meteorological services and communications were reduced or consolidated. A further study was to be done on sector flights and whether the 40th parallel was an equitable basis for determining the user charges.¹⁷⁵

4.4 The Fourth Conference on the Joint Financing Agreements 1982

4.4.1 General

The last DEN/ICE Conference was convened in Montreal in 1982 (DEN/ICE/4).¹⁷⁶ The main issues at the Conference were the adjustments to the user charges, change in the criteria for reporting a crossing, allocation of costs and changes in the services. The recommendations by the Conference required a number of changes in the Agreement and the Annexes.

¹⁷¹ *Ibid.* see also, DEN/ICE/3-WP/9 14/1/77, on participation by non-adherent States, from the Secretariat. To give recent examples, in 1997, this number was 7.2 percent and in 1998, 6.9 percent of the total crossings. See ICAO Council 158th Session C-WP/11170, Appendix 1.

¹⁷² *Ibid.* Recommendation No. 2/1 at 2-1.

¹⁷³ See e.g. *the Economics Conference supra*, note 74, the ICAO Joint Financing Arrangements (Presented by the Secretariat) ANSConf-WP/7, 23/12/99, section 2.1.4 at 2.

¹⁷⁴ *Ibid.* at 1c-1. See table 2, below in Part I 7.

¹⁷⁵ *Ibid.* at 5-1.

¹⁷⁶ ICAO, *Fourth Conference on 1956 Danish and Icelandic Joint Financing Agreements*, Montreal, 16 – 26 February 1982 [hereinafter the DEN/ICE/4 Report] (Doc 9360, DEN/ICE/4 1982).

4.4.2 The Main Changes

The Conference recommended a few changes to the process of determination, calculation and advancement of assessments, of the user charges.¹⁷⁷ The fees were cost-based and the cost fluctuated depending on the number of traffic crossing as spread over the variable costs of the service resulting in either under- or over-recovery of the charges. The method to be used was as follows. Before November 20 of each year, the Council had to determine a single user charge for the crossing. This was calculated by dividing 95 percent of the approved estimated cost for the next year allocable to civil aviation, plus adjustment for under-recovery or minus over-recovery for the year before, divided by the number of actual crossings that year.¹⁷⁸ The over and under-recovery was the difference between the amount to be collected and the total amounts billed. The adjustment did not include the non-recoverable or unpaid charges.¹⁷⁹

All previous Joint Financing Conferences addressed the criteria for reporting a crossing. The DEN/ICE/3 Conference resolved to establish a separate body to study this issue. At the DEN/ICE/4 Conference, the Secretariat presented a report by the North Atlantic Crossing Panel (NACP) on the crossing.¹⁸⁰ The NACP proposed that the reference for the crossing would be the 45th parallel North instead of the 40th parallel North. This was *inter alia* due to the change in navigational means, meteorological services and operational requirements. This affected approximately 2,4 percent of total crossings and, consequently, affected the charges.¹⁸¹ The Conference adopted this proposal.¹⁸² Despite some disagreement over which costs and to what extent the cost increase should be adopted in light of the increased traffic in the Reykjavik area and mainly due to the reduced separation (MNPS), the Conference adopted a *status quo* stand on the issue.¹⁸³ Other changes were more in the nature of changing the Agreement to

¹⁷⁷ *Ibid.* Recommendations No. 1-8, at 1-1 to 1-4.

¹⁷⁸ *Ibid.* Recommendation No. 3(2) at 1-3, and Section III of Annex III, of the Joint Financing Agreement (1982) at 29.

¹⁷⁹ *Ibid.* Recommendation No. 3(1) at 1-2.

¹⁸⁰ ICAO, Proposed New Procedures for Computing Crossings DEN/ICE/4-WP/5.

¹⁸¹ The Council had attempted to change this procedure with a State Letter (SR 150/1-80/103, 16 July 1980), but the change required the unanimous approval it did not receive. See, DEN/ICE/4-WP/5 *ibid.*

¹⁸² DEN/ICE/4 Report, *supra*, note 176, Recommendation No. 10, Criteria for Reporting Crossings, at 2-2.

¹⁸³ *Ibid.* Recommendation No. 11, at 3-2.

reflect the devaluation of currencies and to improve the financial provisions inter alia due to high inflation rate and its effects on the Icelandic Króna, the currency in which the costs were calculated. The limit of new capital expenditure necessary for proper operation of the services, which the Council was permitted to approve, was changed from a fixed amount to a 3,5 percent of the total cost limit. This change required consent by the Contracting States, in accordance with Articles V and VI.¹⁸⁴ The change increased the flexibility for additional expenses, a flexibility which had been crippled by the inflating Icelandic currency.

4.4.3 Amending the Joint Financing Agreement, "the Montreal Protocol"

As far as the 1973 and 1977 DEN/ICE Conferences are concerned, they only dealt with the changes of the financial or service provisions of the Annexes to the Agreement (which the Council was empowered to approve)¹⁸⁵ or dealt with the interpretation of various provisions and application of the Agreement texts. As mentioned above, there were no textual changes made to the Joint Financing Agreement before DEN/ICE/4. The changes initiated at previous Conferences were considered within the limits of interpretation and application of the text in the existing Agreement. The introduction of the user charges was only a new application of Article XIV (2) and did not call for any textual changes to the Agreement. Still, it was a significant change in the Agreement's application. The DEN/ICE/4 Conference (1982), on the other hand, made proposals for textual amendments to a number of Articles of the Agreement, including a new set of obligations. This led to an adoption of a new international Instrument and a new ratifying process, in accordance with international law and Constitution of the Contracting States. The Agreement was unclear as to the amendment process and only referred to a "mutual agreement between the Contracting Governments" in Article XXVI.

¹⁸⁴ *Ibid.* Recommendation No. 14 at 5-1

¹⁸⁵ See Articles V, VI XIII and XXVI of the Joint Financing Agreement. The approval was pending subsequent approval by the States.

This most likely indicated a ~~consensus~~ of all the States-parties to the Agreement. The Agreement was silent however as to which procedure should be used.¹⁸⁶

The Conference considered the options of implementing changes to the Agreement by a State Letter or Protocol, a possibility of provisional entry into force, and the amendment of Article XXVI of the Agreement to accommodate a less complicated or time consuming, future amendments.¹⁸⁷ Some of the Conference delegates were not duly accredited and could not represent their Governments in the adoption of the new Agreement. An additional diplomatic conference was therefore needed. The Conference recommended that the changes to the Agreement should be put in a protocol to be circulated among the States-parties to the Agreement with and implemented provisionally on January 1, 1983.¹⁸⁸ According to Article 25 (1) of the Vienna Convention,

A treaty or a part of a treaty is applied provisionally pending its entry into force if: (a) the treaty itself so provides; or (b) the negotiating States have in some other manner so agreed.

The provisional implementation was an exceptional procedure that required unanimous consent by all the participating States.¹⁸⁹ The provisional implementation of the Agreement enabled its enforcement prior to the completion of the time-consuming formalities of ratification. The Protocol was eventually provisionally applied starting

¹⁸⁶ See Statement by the principal legal officer of ICAO, DEN/ICE/4 Report, *supra*, note 176, at 7-3.

¹⁸⁷ Statement by the delegate from UK, at 7-1 *ibid*. Article XXVI was subsequently changed to accommodate a more flexible amendment of the Agreement, by enabling any State or the Council to initiate an amendment, possibly by State Letter, requiring only 2/3 majority (of States responsible for 90 percent of current assessments).

¹⁸⁸ *Ibid*. Recommendation 15, at 7-5. A diplomatic conference was held in Montreal on November 1-3, 1982. It adopted the Protocol of Amendment to the Joint Financing Agreement which was to be provisionally applied starting January 1, 1983. See, ICAO *Agreement on the Joint Financing of Certain Air Navigation Services in Iceland (1956). Protocol for the Amendment of the 1956 Agreement on the Joint Financing of Certain Air Navigation Services in Iceland. Done at Montreal on November 3, 1982. Informal Consolidated Text of Articles I-XXVI of the 1956 Agreement on the Joint Financing of Certain Air Navigation Services in Iceland as Amended by the Montreal Protocol of 1982* (Doc 9385-JS/680). The latest version of the Agreement can be found in ICAO, Doc 9586-JS/682, June 1992, see, Attachment 1 hereto.

¹⁸⁹ *The Vienna Convention on the Law of Treaties supra*, note 113. The consent of all the participating States was needed, including the consent of Cuba, which was a party to the Agreement. Her consent to the Agreement in the midst of the Cold War era was an accomplishment and a rarity unheard of at that time.

January 1, 1983, even though the protocol came formally into force only in 1989 by the last ratification.¹⁹⁰

The Conference delegates wished to amend the Agreement in the simplest manner possible.¹⁹¹ The new Agreement included an important change to Article XXVI:

1. Any proposal for an amendment of this Agreement may be initiated by Contracting Government or by the Council. The proposal shall be communicated in writing to the Secretary General who shall circulate it to all Contracting Governments with the request that they advise him formally whether or not they agree to it.

2. Adoption of an amendment shall require the agreement of two-thirds of all Contracting Governments responsible in the aggregate for not less than ninety per cent of current assessments.

3. An amendment so adopted shall enter into force for all Contracting Governments on 1 January of the year following the year in which formal written acceptance of the amendment have been received by the Secretary General from Contracting Governments responsible in the aggregate for not less than ninety-eight per cent of the current assessments.

4. The Secretary General shall send certified copies of each amendment as adopted to all Contracting Governments and shall notify them of any acceptance and of the date of entry into force of any amendment.

5. The Council may, in cases additional to those specified in paragraph 6 of Article XIII, amend the Annexes to this Agreement, subject always to the terms and conditions of the Agreement and the consent of the Government of Iceland.

This is a significant change in the simplification of the amendment process of the Agreement. The Council or any Contracting State can initiate an amendment which is then circulated for formal acceptance. The amendment needs approval of the two thirds

¹⁹⁰ See ICAO, *Annual Report of the Council 1989*, Doc 9553 at 61.

¹⁹¹ ICAO, DEN/ICE/4 Report, *supra*, note 176, at 7-4.

of the Contracting Governments (not less than 90 percent of the assessments). It enters into force *erga omnes* when States responsible for 98 percent of the assessments have accepted the change. The Amendment reduces the need for future conferences and the Council, which is not a party to the Agreement, can propose an amendment to it.

4.5 ICAO Council and Secretary General Powers

As mentioned above, the Joint Financing Agreement confines exceptional powers upon the Council and Secretary General without being a formal party to the Agreement. In addition to the general administrative, supervision and auditory duties¹⁹² supervised by the Secretary General, the Council is invested with powers to take decisions that financially obligate the States-parties to the Agreement, under Articles V, VI XIII and XXVI (5). The States-parties to the Agreement must subsequently approve the Council's decisions. The Council may initiate changes to the Agreement (Article XXVI (1)), convene a new conference of the concerned governments (Article XVII) and negotiate accessions by new States (Article XX). If there is a dispute concerning interpretation or application of the Agreement and it is not settled by negotiations, it can be referred to the Council for its consideration (XVIII). The Council is entitled to exclude or add services with the approval of the Icelandic Government (Article XIII). The Joint Financing Conferences have referred a number of important issues to the Councils decision,¹⁹³ and it is the body empowered to act upon the recommendations of the Conferences. Some of these powers have to do with the Organisation's expertise in the technical field of air navigation, others are more of a general nature.

¹⁹² One of the duties of the Council has been to ensure that the cost determination procedures under joint financing arrangements are consistent with the *Statements by the Council to Contracting States on Charges for Airports and Air Navigation Services* (Doc 9082).

¹⁹³ E.g. allocation of costs (1977), request for increase in the administration costs in Iceland (1982).

4.5.1 The Administrative Process under the Agreement

The Joint Financing Agreement requires considerable and somewhat cumbersome and time-consuming system for the calculation of the costs, user charges and annual assessments. Below is a description of the system.

A. Costs and Assessments:

1) The Icelandic Authorities must submit to the Secretary General annual estimates of the costs of the services, before the 15th of September each year, for the following year (Article VIII (1));

2) The Council must approve the estimated cost (Article IX (2));

3) The estimated costs to be circulated to the Contracting states (Article IX (5));

4) The Council may approve additional costs within the limits stated in Article XIII (2)(a);

4.1) If the costs are exceeding the limits of Articles V or XIII (2)(a), the approval of the Contracting States is necessary Article XIII (2)(b)(c);

5) The contracting Governments must submit information on number of crossings to the Secretary General before 1 May each year (Article VII (9)(10);

6) Before 20 November each year, the Council assesses the Contracting governments for advances for the following year, based on the estimates costs, number of crossings by each States, minus the advances from user Charges (Article VII (3));

7) The Icelandic Authorities must, within 6 months after the end of each year, submit to the Secretary General a statement of the actual costs (Article VIII (2));

8) The actual cost of the services must be audited (Article VIII (2));¹⁹⁴

9) The Council must approve the actual cost (Article VIII (4));

10) The actual cost is to be circulated to the Contracting States (Article VIII (5);

11) The assessments will be adjusted taking into account the difference between the advances based on estimated cost and the actual cost (Article VII (3).

B. Administration fee (Annex III, Part D, Section IV)

1) Before November 20 each year, the Council is to establish estimates for the administrative fees (Article 1);

2) After the end of each year, the Council is to determine and approve the actual administrative costs (Article 3);

3) Statements of actual administrative costs must be circulated among the Contracting States (Article 4).

C. User Charges (Annex III, Part D, Section III)

1) Before November 20 each year, the Council is to determine a single user charge per aircraft crossing the North Atlantic. This charge is 95 percent of the approved estimated cost allocatable to civil aviation the following year, plus or minus under- or over-recovery from the previous year (Article 1). See, Attachment 4 on the method of calculation.

2) A single charge is to include the ICAO administrative costs (Article 6).

¹⁹⁴ An External Auditor performs this function. See, ICAO, *Council –158 Session, Approval of Audited*

ICAO Secretariat has been responsible for generally supervising the operation and administration of the Agreement and arranging for audits and payments to the provider States from assessments received. It carries out the day-to-day administrative functions, including the analysis of the cost estimates and actual costs and evaluation of requests for new capital expenditures and resources. It prepares the assessment levels for participating Governments and determines the level of user charges. One of the most important ICAO secretariat's functions has as well been the technical supervision of operations and monitoring of the quality of the service.

This process is time-consuming and involves a considerable paper work. However, it only reflects the original nature of the Agreement as a support or aid, where costs are controlled by the aiding States, and the quality and costs of the services are monitored by the Council. The changes in the Agreement, including those introduced at the DEN/ICE/4 in order to simplify the process and to increase the powers of the Council to add services, reflect the lessening of the financial burden imposed on the Contracting States. At a stage, where the user charges are more or less funding the services.

5. Recent Changes

No Joint Financing Conferences has been convened since 1982. Still, a number of changes have been made to the Annexes to the Joint Financing Agreement due to new capital expenditure and changes in the services. Significant capital investments have been carried out to modernize and improve the safety and efficiency of the services,¹⁹⁵ as well as other changes for example, in the allocation of costs to international aviation.¹⁹⁶

Two recent changes are worth mentioning. The first one is the incorporation of the VHF Omnidirectional Radio Range/Distance Measuring Equipment navigation facility at Ingólfshöfði (INGO VOR/DME) into the Joint Financing scheme. The INGO VOR has been operated for domestic and international purposes. The domestic use drastically

Actual Costs Under the Icelandic joint Financing Agreement for the year 1998, (Doc C-WP/11221, 18/10/99). The Auditors report (Doc JS-WP/1735, ICE/631, 13/9/99).

¹⁹⁵ New ACC, new Flight Data Processing System, Integrated Communication System.

¹⁹⁶ Allocation of meteorological costs (MET and MET/COM) has been changed from 30 to 90 per cent. See ICAO, *Annual Report of the Council 1997* (Doc 9700) at 32 and 1998 (Doc 9732), at 37.

decreased upon the certification of the GPS en-route navigation in the domestic airspace, to the point that the renewal of the facility was not considered practical for that purpose.¹⁹⁷ The facility at INGO is still included in the Air Navigation Plan for the North Atlantic Region (part 3) as a part of the G3 Airway and is therefore considered to benefit international air navigation. Interestingly, not a single aircraft today crosses the North Atlantic without GPS, whether certified or not. The facility will be shared with domestic users, and the Joint Financing will account for 82 percent of the cost.

The provider States operating under the Joint Financing schemes in Iceland and Denmark (Greenland) have held annual user charges consultation meetings with IATA which represents the operators (users) and ICAO. At the suggestion of IATA, Iceland and Denmark proposed a change in the calculation of the user charges by using the number of forecasted crossings when estimating assessments, instead of the actual number of crossings from the previous year.¹⁹⁸ This is considered a more precise estimation of the costs and is expected to relate more to the costs of the services incurred in each year. It reduces the fluctuations in the charges and simplifies the calculation method.^{198a} It was decided to use the NAT SPG baseline percentage forecast for the calculation.¹⁹⁹ This change in Annex III of the Agreement only requires the consent of the Council and the Provider State, according to Article XXVI (5) of the Joint Financing Agreement.

At the same time, the Secretariat suggested to incorporate the costs of delays and default payments of user charges into the user charge to be born by the user, and not by the Contracting States. IATA indicated that the airlines were prepared to assume this cost.²⁰⁰ This change will be effective starting January 1, 2001. The default payments amount to approximately 0.25 percent and the delays in payments represent

¹⁹⁷ See ICAO Council – 159th Session, *Radio, Navigation Aids Requested by Iceland to be Included Under the Icelandic Joint Financing Agreement*, (Doc JS-WP/1748, ICE/638, 7/1/00). The cost of the facility is estimated to be 383.000 US dollars, with 314.000 US Dollars to be collected through User Charges.

¹⁹⁸ ICAO, Council 169th – Session, *Amendments to the Annex III of the Danish and Icelandic Joint Financing Agreements as Regards the Calculation Method of User Charges* (Doc C-W/11354, 5/5/00), Attachment A at 7.

^{198a} The complex mechanism used to calculate the user charges was criticized as clearly outdated by the Icelandic CAA in its 1986 Annual Report at 29.

¹⁹⁹ *Ibid.* at 2. The forecast predicts an annual increase from 3.6 to 4.5 percent from between 2000 – 2004.

²⁰⁰ *Ibid.* at 3.

approximately the interest costs of two months of user charges.²⁰¹ According to the information provided by the Joint Support Secretariat, this amounts to the bulk of the average 2 percent contribution from the Contracting States. Remaining are the contributions for services provided according to the Agreement, but not attributed to international air navigation. They are therefore not included in the user charge. This cost now amounts to 10 percent of the meteorological services and related meteorological telecommunication services.²⁰²

6. The Height Monitoring System Arrangement

Since March 1997, the first phase of reduced vertical separation minima (RVSM) was implemented in the North Atlantic minimum navigation performance specification (MNPS) airspace. This permitted the reduction of the vertical separation minima for MNPS certified aircraft from 2000 to 1000 feet, between flight-levels 290 and 410.

As part of the approval process for the reduced separation, height-keeping performance had to be demonstrated prior to and during its implementation. A monitoring agency was established to monitor the performance of the reduced minima. The arrangement is made under a new joint financing scheme funded by the participating States and administrated by ICAO, as requested by the NAT SPG.²⁰³ However, the operation, maintenance and depreciation costs and ICAO administration costs are met through user charges.^{203a} Due to the provisions in Article XV of the Joint Financing Agreement, Iceland's participation in the program jointly funded by the participating States needed the Council's approval.^{203b}

²⁰¹ *Ibid.*

²⁰² See the Joint Financing Agreement, Annex III – Financial, Section III – User Charges, Article 7, at 29. 60 percent of the cost is allocable to international civil aviation. The cost allocation was reviewed by the Council and beginning January 1, 1999, 90 percent were allocable to aviation. See Annual Report of the Council 1998, Doc 9732 at 37.

²⁰³ See, ICAO Council – 142nd Session, *Joint Financing Arrangement for NAT Height Monitoring System* (Doc JS-WP/1622 ICE/567, 3/6/94). See, the Councils approval ICAO Annual Report 1994 (Doc 9637), at 47. The participating States are Canada, Iceland, Ireland, Portugal, United Kingdom and the United States.

^{203a} *Ibid.* paragraphs 8 and 12

^{203b} *Ibid.* paragraphs 1, 2 and 10.

As indicated above, Chapter XV does not deal with the general financing of projects within the ANS sector. Instead, it deals with the aiding of States to provide services and facilities considered inadequate by the Council. This new arrangement seems to be taking the “joint financing aid” and the Chapter XV of the Chicago Convention still further into new interpretative dimensions.

7. State Contributions

Some important changes have taken place in the operational and economical environment since the 1982 Joint Financing Conference. For the last 18 years, the Agreement has accommodated a number of changes to the Annexes.

The fact that no new Conferences have been held since 1982 seems to indicate solidarity among the participating States as regards to the execution of the Agreement. However, this might as well show a lack of interest reflecting in the relatively low contributions from the Contributing Governments. This would be similar to a shareholder with insignificant investment. The cost of the services could not exceed 4,3 million US dollars in 1982. In 2000, this figure was 16.8 million US dollars. The increase was mainly due to the investments in a new ACC building, new digital communication systems and flight data processing systems (FDPS)²⁰⁴ needed to cope with the increasing traffic and to maintain the required standards. The largest part of this increase in costs comes from the user charges.

The contribution by the twenty-three Contracting States has amounted to approximately 2 percent of the total cost of the services for the last four years and is still decreasing. The table below shows the amounts of contribution between 1987 and 1998.²⁰⁵

²⁰⁴ The new systems form part of a development plan which takes into account the Future North Atlantic Air Traffic Services Systems Concept Description endorsed by the NAT SPG.

²⁰⁵ The figures are based on the data from the 1987-1998 Annual Reports of the Council.

Table 1. Annual contribution by the Contracting States to the Icelandic Joint Financing Agreement in US \$.

<i>Year</i>	<i>Annual Assessments</i>	<i>Advances (95 % of estimates)</i>	<i>Contribution as % of estimated costs</i>
1998	312.617,0	17.196.473,0	1,8 %
1997	617.361,0	14.775.730,0	4,2 %
1996	114.753	13.619.466,0	0,8 %
1995	135.731,0	11.767.850,0	1,2 %
1994	1.219.363,0	11.529.490,0	10,6 %
1993	534.881,0	10.918.707,0	4,9 %
1992	178.727,0	10.783.129,0	1,7 %
1991	-347.894,0	8.520.007,0	- 4,1 %
1990	-1.576.794,0	7.302.160,0	- 21,6 %
1989	2.250.685,0	7.024.735,0	32,0 %
1988	879.606,0	6.649.746,0	13,4 %
1987	-707.871,0	6.124.707,0	- 11,6 %
Average	301.015,0	10.509.350,0	2,8 %

NOTE:

The table shows the annual assessments and the advances by the Contracting States for that same year.

The advances and assessments are based on estimates and are subject to change.

This contribution by the States is mostly due to the lost revenues in non-recoverable charges, interest cost due to delays in collection from the users and non-aeronautical benefits not covered by user charges, but included in the Joint Financing scheme. This cost is almost less than half of Iceland's 5 percent "special benefits derived from the services.

Table 2. Distribution of costs in a single user charge 1996 – 2000, in pounds sterling.²⁰⁶

<i>Year</i>	<i>Danish</i>		<i>Icelandic</i>		<i>ICAO</i>		<i>RVSM</i>		<i>UK-CAA</i>		<i>User charge</i>
	<i>Agreem.</i>	<i>%</i>	<i>Agreem.</i>	<i>%</i>	<i>adm. fee</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	
1996	11,17	22,6	28,21	57,1	0,92	1,9	7,69	15,6	1,39	2,8	49,38
1997	13,84	23,4	33,12	55,9	0,75	1,3	9,78	16,5	1,76	3,0	59,25
1998	13,28	21,1	33,64	53,5	0,72	1,1	13,20	21,0	2,04	3,2	62,88
1999	7,88	17,2	28,99	63,4	0,71	1,6	6,90	13,3	2,02	4,4	45,68
2000	9,98	18,0	35,83	64,6	0,69	1,2	6,78	12,2	2,22	4,0	55,50

NOTE:

The administrative charge and the UK-CAA collecting charge is for all three Agreements

The administrative and billing charges are added to the service charges

The variables in the charges are e.g. due to fluctuations in number of crossings

The average contribution by the Contracting states has been 2.8 percent over the last 12 years, and 2 percent for the last 4 years (1995-1998). This contribution will be further significantly reduced when the latest amendment to Annex III of the Joint Financing Agreement will be implemented, as discussed above. The estimated contribution by the States for 1999 is 0,3 percent. The international air navigation services over the North Atlantic provided by Iceland are at the point of being financed only by user charges. The contributions, or the “aid” from the twenty three Contracting States, including Iceland, are doing little more than covering the administrative fee for supervising the program.

8. Part I Summary Conclusion

The above sections have analyzed the development of the Joint Financing Agreement in Iceland. The fundamental idea behind the joint financing was and is that States should comply with their commitments according to Article 28 of the Chicago Convention in providing the necessary facilities and services for international air transport. When the states were unable provide the services and or facilities due to technical or financial

²⁰⁶ Based on the information from the Joint Support Secretariat.

circumstances, the joint financing aid was available through collective action, in accordance with Chapter XV of the Convention. However, according to the ICAO Assembly policy, this method is only available if the relevant State seeking the aid was unable to finance its operation directly or by other means. Iceland's strategic location in the North Atlantic and its own minimal need in the benefits arising from the important service made Iceland a prima facie candidate for a collective action in the form of the Joint Financing scheme. Air navigation facilities offered by Iceland were necessary for the safe aircraft flying in the region.

The Joint Financing Agreement has ensured the availability of the services and facilities in accordance with the Standards and recommended practices of the Annexes to the Chicago Conventions. At first, the services were financed by the participating States. In 1974, user charges were introduced in accordance with the Chicago Convention and the Joint Financing Agreement. The charges initially financed only a small part of the cost and were used for the needs of the international civil aviation, but since 1981, all services have been more or less financed by user charges.

Since 1981, each Member State's contribution to the Joint Financing Agreement has consisted of the State's share in the lost revenues covered the interest cost and financed the diminishing non-aeronautical services. This share was approximately 2 percent of the 95 percent of the total cost. This share has been reduced further, under the latest amendments to Annex III of the Joint Financing Agreement, to a figure of non-relevance.

According to the ICAO's policy, a contracting state shall exhaust all possibilities of arranging directly for the adequate air navigation facilities before applying to ICAO for aid under the terms of Chapter XV. User charges are one way of financing services and facilities, and it is almost universally applied.

ICAO Secretariat has been responsible for the general supervision of the operation, administration and monitoring of the services' quality. This is a cumbersome and time-consuming process, but it reflects the nature of the Agreement.

The question arises at this point as to whether this new method of financing through user charges is an alternative that replaces the Joint Financing scheme. ICAO policy refers to the Joint Financing only as a last resort if other means are not available. Has the Joint Financing Agreement outlived its usefulness?

Is the Joint Financing in Iceland (North Atlantic) necessary and does it have a future? It will depend upon many factors, including, for example, the overall need for the aid and collective action, technical development and use of the global satellite position system (GNSS), CNS/ATM, and the development in computer software. The institutional factors in Iceland, the development towards privatization and globalization and the integration of services on regional basis bolstered by the demands of economic efficiency are the factors that will equally influence the debate.

Part II. Technical and Economical Developments

1. General

This part will consider the aspects relating to the technical and economic environment, which has and will affect the Joint Financing Agreement and its future. Article 28 of the Chicago Convention provides for the obligation to provide *inter alia* communication services, meteorological services, and other navigational facilities to facilitate international air navigation. If in the opinion of the Council States are unable to fulfil their obligation, the Council will consult with the State to find a solution to the situation, according to Article 68 of the Convention. One of the solutions that have already been discussed above is Joint Financing concept, according to Chapter XV of the Convention, but that option is only used if other means of direct financing fail. Today, there are other options available to remedy the shortcomings of navigational facilities and services without direct aid or collective funding in the form of Joint Financing.

2 Technical development

2.1 General

Safety of international air transport requires the exchange of various data, for example, meteorological, flight information, search and rescue, alerting services and ATC instructions. This calls for continuous contacts with the relevant ATS units along the route of flight. Part I has discussed the obligation of States to provide services and facilities according to Article 28 of the Chicago Convention. Over the high seas, the State has no responsibility in this aspect, and if it assumes such responsibility it must do so in accordance with the relevant agreed regional air navigational plan or on the basis of international agreements. The argument for applying the Joint Financing scheme in Iceland was *inter alia* due to the cost of providing the services and facilities, which were

of minimal benefit to the Icelandic State.²⁰⁷ The only navigational aid in the Joint Financing Agreement was the Loran station at Vik, which later was phased out, when the station became unnecessary as a navigational means.

The technical development from the first years of the Joint Financing to the present has been enormous. The technical development in the airborne equipment in the aircraft has, as a rule, been a way ahead of the development and adoption of the equipment on the surface. The reason is likely due to the government involvement in the ground system infrastructure and safety and regulatory issues.²⁰⁸ The speed of the development has caused problems in the amortisation of older equipment and facilities,²⁰⁹ this being one of the reasons for governments' reluctance to fuel resources into the ANS infrastructure, since a delay might enable them to leapfrog over some development stages.

The development in aircraft, airborne equipment, ground facilities and services called for reassessment of the requirement for navigational facilities and services provided by the Joint Financing Agreement, as they were defined in Annex I of the Agreement. Since the 1956 Joint Financing Conference, there has been a discussion on the reassessment of services and equipment used. The talks reflected the changes in the technical field, as well as the overall requirement for services. The introduction of jet aircraft meant considerable changes in the aircraft operating capabilities as well as in the ATS system and services. Aircraft were flying at different altitudes and speeds, with extended range diminishing the need for refuelling stops and so forth. The navigation source had primarily been ground-based radio navigation aids, such as Loran, VOR's and NBD's.²¹⁰ The navigators as a part of the aircrew vanished. The conventional systems required equipment on the ground and receivers or interrogatory components in the aircraft. The new aircraft were deployed with partially self-contained navigational systems, Doppler or

²⁰⁷ The services are defined in Annexes I-III to the Joint Financing Agreement.

²⁰⁸ See e.g. the Aviation Safety Report *infra*, note 317, at 794

²⁰⁹ All the equipment and facilities in this field are highly specialized and costly, and governments are reluctant to throw out equipment that has not been amortised. See also ICAO, Economics Manual *supra* note 150, on the suggested method at 44, and in particular at 54 paragraph 4.90 - 4.93 on amortisation in relation to CNS/ATM systems.

²¹⁰ Each segment of the airway system is established between two or more nav-aids. The aids either transmitted signal directions or enabled pilots to home onto and thereby to determine their relative position from the aid.

inertial navigation. There was no flow system established over the North Atlantic in 1956. With the jets and increased traffic, the quest for the shortest track and economical altitudes required organized track system with composite altitude separation to accommodate the flow of traffic. The track system was established and mainly organized by Gander ACC and Shanwick ACC on a daily basis, depending on the weather systems. The achievements in communications helped to improve VHF Communications and relay stations. In the Meteorological field, observations were improved, along with weather satellites and weather radars, allowing a more accurate and economical weather forecasting.

A considerable time was spent on the technical development at the DEN/ICE/2 Conference in 1973. The issue was raised again on the need for services provided by the Reykjavik CTA/FIR. Were they still required, and if so, should they continue to be provided by Iceland or from another location?²¹¹ The Conference concluded that the services were required, but asked the NAT/SPG to consider and review the needs and delineation of the Reykjavik FIR.²¹² As to the general determination and demand for the services, they are set by the North Atlantic Regional Air Navigation Plan (NAT/RANP) and considered by the NAT/SPG, based on operational considerations.²¹³ The discussion at the Conference was at a time when the Contracting States were at the peak of their financial contribution to the Joint Financing Agreement. From then on, user charges started to contribute to the financing gradually reducing financial support from the participating States.

The Joint Financing Agreement catered for both additional new services, within certain limits,²¹⁴ and exclusion of services. The change was to be initiated either by the

²¹¹ The DEN/ICE/2 Conference Report, *supra*, note 147, at 4-2. The first time when this question was raised officially was at the Geneva Conference in 1948, in a joint statement made by Denmark, Norway and Sweden. They "considered that the possibility and practicability of transferring the responsibility of this service to another existing adjacent Area Control Centres should be explored with a view to reducing or avoiding Joint Support costs for this specific service." See the Geneva report *supra*, note 91, at 51.

²¹² *Ibid.* Recommendation No. 9, at 4-2.

²¹³ See ICAO, Assembly Resolution 32-14, *supra*, note 14, Appendix L and N, and ICAO, Doc 8144, *supra*, note 13, Part I and II.

²¹⁴ According to Article XIII (2)(a) of the Joint Financing Agreement, the approval of the participating Governments was required if the new services exceeded 3,5 percent of the Article V limit.

Council or by the Icelandic Government.²¹⁵ This flexibility of the Agreement allowed the adjustment of services and facilities to reflect technical changes and the operational needs as they were determined by the NAT/RANP.

The following is a general study of the technical changes and their effects on the future of the Joint Financing, as well as the response to them by the international community (mainly ICAO).

2.2 Early Development: FANS

All the relevant conventional methods of the navigational means by aviation, such as communication, navigation and surveillance, have been based on ground stations, with regular interval forming a network enabling aircraft to navigate “freely,” irrelevant of weather or daylight. A network of navigational aids and services are forming an infrastructure similar to the road and highway network, where each portion of an airway is located between two or more aids. This system has been expensive to establish, maintain and operate, and still it only covers limited portion of the globe. The problem with the conventional system was considered manageable until the early 1980’s, when the air traffic increased creating congestion in the high-density traffic areas. With this continuing growth it was foreseeable that the limitations of the current conventional system was a hindrance in the future growth and safety of air navigation.

In 1983, the ICAO Council established a Special Committee on Future Air Navigation Systems (FANS).²¹⁶ The Committee was composed of providers and users supported by experts in the field.²¹⁷ The Committee was instructed to adopt a “system approach” in its work and consider all available technology in its projection of the future needs and solutions. The Committee’s task was to study, identify, analyse and assess new concepts and technologies, including satellite technology in the field of air navigation,

²¹⁵ Article XIII of the Joint Financing Agreement.

²¹⁶ ICAO, *Special Committee on Future Air Navigation Systems*, Fourth Meeting Montreal, 2 – 20 May 1988, report [hereinafter FANS Report] (Doc 9524, FANS/4 1988) at i. This was the Committee’s final meeting.

²¹⁷ *Ibid.* at 1 and ii-1.

which might benefit the future development of international civil aviation over the next twenty-five years.²¹⁸

The Committee completed its task with a report in 1988, where it identified the technical and operational shortcomings of the present system and suggested future solutions.²¹⁹ The main shortcomings of the system were propagation, the “line of sight” limitation, implementation problems, lack of air-ground data interchange systems, lack of route flexibility and harmonized system development. This made the system unreliable in reference to coverage, accuracy and efficiency.²²⁰ The Committee proposed some improvements and stated that the “exploitation of satellite technologies is the only now viable solution that will enable one to overcome the shortcomings of the present CNS systems and to fulfil the needs and requirements of the foreseeable future on a global basis.”²²¹ A satellite-based CNS system was to be a key to a worldwide improvements in this field, where digital data is to be used for the interchange between the air and ground systems to enhance automated capabilities and the operational advantages of all segments.²²² The new CNS system was expected to overcome the limitations of the existing system thereby allowing ATM to evolve and response to the users needs on a global scale.²²³ The CNS/ATM is meant to “provide closer interaction between the ground system and the airspace users before and during flight, air traffic management will permit a more flexible and efficient use of the airspace and enhance traffic safety.”²²⁴ In contrast to the existing ground network, the Aircraft position and CNS under the new system was based on signals and transmissions through space satellites. However, the ground-based systems would still be used in congested and high traffic density areas. In

²¹⁸ *Ibid.* at 1, and Abeyratne *supra*, note 37, at 106

²¹⁹ *Ibid.*

²²⁰ *Ibid.* at 1. Others have defined the system performance shortcomings in reference to safety, capacity, efficiency and cost-effectiveness. See also Schwenk *supra*, note 17, at 51, and Werner Guldemann & Stefan Kaiser, *Future Air Navigation Systems Legal and Institutional Aspects*, (London: Martinus Nijhoff publishers, 1993), at 11.

²²¹ See the FANS Report *Ibid.* at 3.

²²² It is estimated that 50 percent of the ATC workload in high-density areas is devoted to direct controller-pilot voice communications. The use of data-link to automate a large part of this communications would significantly increase ATC productivity. See, Schwenk *supra*, note 17, at 59.

²²³ See the FANS Report *supra*, note 216, at 2.

²²⁴ *Ibid.* at 2. Recommendation 2/1 – Adoption of the global concept of future CNS systems.

its report, the Committee considered the future solutions on a global scale. There is no doubt that the implementation of the FANS proposals would involve complex and lengthy process at the national and international levels.²²⁵

2.2.1. Costs Benefits

The FANS Committee did some cost benefit scenario studies based of the advantages of the future development of the global concept. The presented figures are only tentative. The North Atlantic simulation was the only one to provide data, which could be used directly for the cost/benefit calculation, other figures were reached by analogy or estimates.²²⁶ The remote areas with limited CNS facilities or those served only by HF radio with little or no surveillance and limited navigational aid satellite CNS was expected to provide significant benefits.²²⁷ In the North Atlantic, the summary conclusion of the cost/benefits was:

The NAT area is one where the existing communication facilities are limited and independent surveillance facilities largely non-existent. Satellites offer the only scope for providing high quality services in this regard. They also offer the scope for improved navigational accuracy.²²⁸

In the Reykjavik CTA the summary conclusion was:

Results generated to date indicate that automatic dependent surveillance affords modest improvements in level of air traffic services as measured by the ability to provide optimal flight paths in the northern NAT Region. Significant benefits are derived from extended radar coverage and control in the area which often enables the ATC unit to grant changes in flight level in an environment of random crossing tracks and to permit

²²⁵ Guldemann & Kaiser *supra*, note 220, at 48.

²²⁶ See the FANS report *supra* note 216, at 4-6.

²²⁷ *Ibid.* at 4-7.

²²⁸ *Ibid.* at 4A-4.

the use of reduced separation. ADS and radar are seen as contributing significantly to safety and efficient operation of the ATC system in the northern NAT area.²²⁹

In short, the future concept would provide significant cost reduction comparing with the conventional system. This would mean reduction in capital and operating costs and benefits in avoided costs and the improved efficiency in communication, navigation and surveillance. The consolidated global cost/benefits were estimated as significant.²³⁰ However, the benefits, avoided costs and operating efficiency improvements would not be fully realised unless there was a global scale implementation and complementary supporting ATS infrastructure.²³¹ The future replacement of the existing navigational aids by GNSS is not only to provide a global navigational service, but will incorporate a great deal of economical advantages. However, the removal of the ground-aids it is not a prerequisite for the successful implementation of the GNSS.²³²

A study was made by the Nordic civil aviation administrations (NHIP study) on the costs and benefits of harmonisation and integration of the Nordic air navigation systems from implementing the CNS/ATM concept in that region for the ANS providers and users.²³³ The study showed major benefits in the technical and operational fields in reduced capital and operating costs of navigational equipment, surveillance equipment, possible shortening of air routes and flow routes. It also proved that saving aircraft and passenger time and the harmonisation and integration would increase efficiency for the users.²³⁴ It demonstrated the financial and operational advantages of the new technology.

²²⁹ *Ibid.* at 4A-15

²³⁰ *Ibid.* at 4-12. The consolidated global cost/benefit results of advanced CNS system was estimated in the range of \$5.2 - \$6 billion, at a cost of ca. 1 billion, annually. In the FANS II report, this figure was considered significantly higher, see, FANS II *infra*, note 258, the Global Plan at 8A-13.

²³¹ *Ibid.* at 4-17.

²³² See Guldemann and Kaiser, *supra*, note 220, at 47. Also, ICAO, *Air Navigation Services Economics Panel*, Report on Financial and related Organizational and Managerial Aspects of Global Navigation Satellite Systems (GNSS) Provision and Operation [hereinafter the Economics Panel Report] (Doc 9660, May 1996), at 5.

²³³ See *Harmonization and Integration of the Nordic Air Navigation Services and Systems, Study Report* (May 1994), Appendix C. The Nordic Harmonisation and Integration Programme (NHIP) study made by the CAA's in Denmark, Finland, Iceland, Norway and Sweden, the analysis covered the period from 1994 to 2010.

²³⁴ *Ibid.* at C 5 and C 22. The net value of the savings was estimated US\$ 162 million (1994) over the period 1994-2010.

The operational and economical benefits of the CNS/ATM would be greatest in the areas which had a limited, poor or non-existent services or facilities due to the technical limitations, for example, over the high seas, polar areas and large undeveloped areas, like Africa and the Russian Federation. Those areas could be adequately serviced by the satellite technique in the future.

2.3 Global Navigation Satellite System

The GNSS, which is a key element in the CNS/ATM systems, has been defined by ICAO as:

A world-wide position and time determination system that includes one or more satellite constellations, aircraft receivers, and system integrity monitoring, augmented as necessary to support the required navigation performance for the actual phase of operation.²³⁵

At the time of the FANS report, the use of global positioning by satellites was already in military use. The US military was deploying its Global Positioning System (GPS), and the then USSR its Global Orbiting Navigation Satellite system (GLONASS). The third developed system was the European Satellite navigation programme Galileo.²³⁶ The downing of Korean Airlines KAL007 changed the position of the US towards the civil (international) use of the GPS. President Ronald Regan declared its availability for the civil use in 1987.²³⁷ The two systems, GPS and GLONASS, have been offered to ICAO as a means to support the evolutionary development of GNSS.

At present, GPS is the only fully operational system. It is operated in two modes: the Standard Positioning Service (SPS), which is available for civil use and a Precise Positioning Service (PPS) with higher accuracy and for military use only. In its policy statement, the US offered the GPS SPS to civil users free of charge and continuously, for

²³⁵ ICAO, Economics Manual *supra*, note 150, at 85.

²³⁶ See EC, *Agreement between the European Community, the European Space agency and European Organisation for the Safety of Air Navigation on a European Contribution to the development of global navigation satellite system (GNSS)* (1998) OJ L194 19/07/1998, at 16.

²³⁷ See Glen Gibbons, "Use of Satellite Navigation and Positioning in Civilian Uses of Space," *Heaven and Earth: Civilian Uses of Near-Earth Space*, ed. Dorinda G. Dallameyer & Kosta Tsipis, (The Hague: Kluwer Law International, 1997), 203 at 208.

at least ten years, with no limitations, except where national security and public safety is an issue.²³⁸ The GPS and U.S. Government augmentations were to remain responsive to the National Command Authorities.²³⁹ Because of the less accuracy of the SPS, an augmentation system is necessary to combine the GPS satellite signal with ground-based position signals for greater accuracy and to increase it to the required precision.²⁴⁰ This policy was reformed on May 1, 2000, when President Clinton announced “that the United States will stop the intentional degradation of the Global Positioning System (GPS) signals available to the public beginning at midnight [May 1, 2000].”²⁴¹ This measure is the most recent in the on-going effort to make GPS more responsive to civil and commercial users world wide according to the report, and it will continue to provide all of these capabilities to worldwide users free of charge, according to the announcement.

According to the Chicago Convention and customary international law, the sovereign rights of a State include the right to regulate and control the provision, operation and management of air navigation services within its territory.²⁴² In the case of GNSS, the navigational signal would be extraterritorial, at least as far as the space segments are concerned, controlled and operated by one or more foreign countries, representing a step away from past practice in the application of the principle of sovereignty. The advantage of the GNSS over the earlier stand-alone navigational system, like the inertial navigation system (INS), is in the continuous update of the signal and absolute autonomous position

²³⁸ *U.S. Global Positioning System Policy* from March 29, 1996. Reproduced in Schwenk, *supra*, note 17, at 275.

²³⁹ From beginning of the year 2000, the President was to make an annual determination on continued use of GPS Selective Availability after consultations with, the Secretary of Defence, Secretary of Transportation, the Director of Central Intelligence, and heads of other appropriate departments and agencies.

²⁴⁰ The accuracy of the SPS is ca 100 meters which will be brought down, to ca. ten meters or less, with the enhancement of the augmentation systems like EGNOS (Europe), WASS (US) and MTSAS (Japan). See van Dam *supra*, note XX, at 318. The White House decision to stop the degrading of the GPS is not expected to impact the FAA's Wide Area Augmentation System (WAAS) program. See Frank Morring Jr. US to Stop Degrading the GPS Signal, *Aviation Now* (Aerospace Daily) 05/01/00, at <http://www.aviationnow.com/TwoShare/getPage?sid=2767603609602889202>.

²⁴¹ Statement by the President regarding the United States decision to stop degrading Global Positioning System Accuracy, 1st of May 2000. The earlier statement from 1996 predicted that this might happen between 2000 and 2006. This will mean that civilian users of GPS will be able to pinpoint locations up to ten times more accurately than they do now. See White House press release <http://www.whitehouse.gov/library/PressReleases.cgi>.

²⁴² See Cheng, *supra*, note 106, at 120.

determination, which provides accurate navigation after hours of flight. This is important in areas where conventional navigational aids have been scarce and therefore separation has required large spacing between aircraft, which can now be reduced considerably.²⁴³

2.4 CNS/ATM

Stemming from the FANS Committees task, the main conclusions are the ones that deal with global systems and solutions to the problems of the existing systems and their shortcomings. The main issues are the link between the communication, navigation and surveillance air, and the ground systems where the “line of sight” and other limitations of the conventional system were avoided on a global basis through satellite technology.²⁴⁴

CNS/ATM,²⁴⁵ as defined by ICAO, is “Communications, Navigation and Surveillance systems, employing digital technologies, including satellite systems together with various level of automation, applied in support of a seamless global Air Traffic Management system.”²⁴⁶

The principal objectives of the CNS/ATM concept are to overcome the constraints of existing technology, to meet tomorrow's navigation needs and to create an integrated global system, one which will provide seamless coverage, or what is termed a single continuum of airspace.²⁴⁷

The new technologies will achieve improvements in all airspace domains, while saving billions of dollars. By accommodating more efficient use of airspace, the CNS/ATM systems will have increased airspace capacity and will provide more economical flight operations and improve safety and regularity of air transport.²⁴⁸ The

²⁴³ See Gibbons *supra*, note 237, at 212. Each aircraft is surrounded by an imaginary ellipsoid representing the margin of the worst-case error scenario on the North Atlantic this can be up to 60 nautical miles on each side and 10 minutes longitudinal.

²⁴⁴ *Ibid.* at 2. See also, Werner Guldemann & Stefan Kaiser, *supra*, note 220, at 46.

²⁴⁵ The CNS has basically been understood to comprise of all technologies and infrastructure to support the ATM function, see Schwenk *supra*, note 17, at 2. Sometimes referred to as hardware and the ATM as the CNS customer.

²⁴⁶ See ICAO, Executive Summary of the Global Plan at, <http://www.icao.int/allpirg/execsum.pdf>.

²⁴⁷ Assad Kotaite, “ICAO Ushers in a Revolution in Global Navigation Technology” (1994) *Annals of Air and Space Law* Vol. XIX, 337 at 337.

²⁴⁸ The ICAO Secretary General quoted in ICAO Journal (1998) Vol. 53, No. 5, at 6.

future global CNS will overcome the shortcomings of the existing system and maximize the efficient use of the airspace and airports.

The future ATM system will include integration of airborne and ground processing capabilities and increase the level of automation, integration and harmonisation of these elements.²⁴⁹ The result of the proposed development would combine space and computer technology, which would render obsolete much of the existing ground, based equipment, with its inherent limitations.²⁵⁰ It would allow to maintain and to increase the level of safety and system capacity, as well as the full utilisation of resources to meet the traffic demand and to create a single consortium of airspace.²⁵¹ The FANS Committee considered *inter alia*, the implementation of the satellite based CNS and the introduction of surveillance by the utilisation of ADS in the North Atlantic as the only way to improve the quality of navigation, communication.²⁵²

There is no unique or single CNS/ATM solution. There is a variety of CNS/ATM-related programs and implementations which all contribute to the CNS/ATM final global goal.²⁵³ The challenge has been to define an implementation that allows benefits and return on investment to be achieved as rapidly as possible. It is up to the Contracting States to implement conventional air navigation systems and the same principle applies when implementing the CNS/ATM systems. This is done in accordance with the decisions of Regional Planning Meetings, who decide which equipment and facilities are necessary for providing ANS in the airspace under their responsibility. The Regional Meetings may decide as well which type of organisation and financing are suitable,

²⁴⁹ See Abeyratne *supra*, note 37, at 112.

²⁵⁰ Assad Kotaite, "ICAO's Role with Respect to the Institutional Arrangements and Legal Framework of Global Navigation Satellite System (GNSS) Planning and Implementation" (1996) *Annals of Air and Space Law*, Vol. XXI Part II, 195 at 196.

²⁵¹ See Abeyratne *supra*, note 37, at 113

²⁵² See FANS *supra*, note, at 4-5.

²⁵³ See ICAO, Assembly Resolution 32-14, *supra*, note 14, Appendix I, *Coordination of activities relating to research, development, trials and demonstrations in the fields of communications, navigation, surveillance, and air traffic management (CNS/ATM) and airdrome service*. Where the Assembly resolved that international co-ordination of research and development, trials and demonstrations, related to CNS/ATM and airdrome service should be encouraged. The Assembly asked the Council to act on timely establishment of the requirements and distribution of information on developments in research to able the Organization to co-ordinate and harmonize these activities and make them available to all contracting States.

taking into account all the relevant factors such as technical, economical and possibly political considerations. A Regional Meetings is responsible for *inter alia* development of the systems in the relevant region and to examine the best way to finance them.²⁵⁴

There is no fundamental difference between the conventional navigational system and the CNS/ATM system, except for the space segment (satellites); they both provide parts of ANS. The same basic economic principles apply to CNS/ATM as to other such facilities and services, and ICAO policy and supplementary practical guidance developed on organizational and cost recovery aspects of air navigation services apply.²⁵⁵ However, the CNS/ATM systems provide advanced technology and increased capacity in the form of automation and support systems, but often at a considerable cost. The CNS/ATM concept with its automation and increased capacity will make obsolete much of today's expensive ground-based equipment and the staff and facilities required to operate the associated facilities and structures will become redundant.²⁵⁶ However the new system will also produce economies, efficiencies and greater safety. But more importantly, it will produce a great impact on the integrated global system with the consequential changes in the way ATS will be organized and operated.

Because of the global source of the CNS/ATM systems, there was a need for a global or regional implementation effort.²⁵⁷ The first such effort towards developing a plan was the ICAO Global Coordinated Plan for Transition to ICAO CNS/ATM Systems.²⁵⁸

2.5 ICAO and State Response to FANS

The ICAO Council established a new committee in 1989, according to the FANS Committee suggestion. The new committee, *Special Committee for the Monitoring and Co-ordination of Development and Transition Planning for the Future Air Navigation*

²⁵⁴ See ICAO Doc 8144 –AN/874/6 *supra*, note 13, Chapter 1, and on the tasks of the General Committee see Chapter 2.

²⁵⁵ See ICAO, *CNS/ATM systems – Charges policy aspects*, the Economics Manual *supra*, note 150, at 5.

²⁵⁶ An example of this is the ASECNA proposal (estimate) for withdrawal of conventional navigation aids (VOR, NDB, DME and ILS) in the AFI Region between 2005-2010. The Rio Report *infra*, note 269, *Costs from ATM Services Providers* (Presented by ASECNA) WW/IMP-WP/81, 11/5/98.

²⁵⁷ See Milde, *supra*, note 12, at 95.

System (FANS Phase II), was to follow up on the FANS (I) recommendations. The Committee's term of reference was to identify and make recommendations for institutional arrangements, to develop a global co-ordinated plan and to monitor the nature and direction of the research and development programme.²⁵⁹

The Committee *inter alia* developed a Global Co-ordinated Plan for evolution to the ICAO CNS/ATM Systems.²⁶⁰ The objective of the plan was to guide regional planning bodies, states and service providers and users in the progressive and co-ordinated worldwide implementation of the elements of the future air navigation systems in a timely and cost effective manner.²⁶¹ States at the ICAO Tenth Air Navigation Conference reviewed the work of the FANS Committee, in 1991,²⁶² where the global concept, as defined by the FANS Committee, was endorsed by the Conference.²⁶³ The Conference urged ICAO to develop the necessary SARP's for the implementation of the CNS/ATM,²⁶⁴ but this was one of the Council's mandatory functions, according to Article 54 (I) of the Chicago Convention.

ICAO reacted to a Council's statement²⁶⁵ and followed with the Assembly Resolutions A29-8 and A29-9 on the CNS/ATM policy.²⁶⁶ The policy refers to the universal accessibility without discrimination, responsibility and sovereignty of States according to Article 28 of the Chicago Convention, and the ICAO's responsibility for the technical regulations and retention (maintenance) of the existing institutional and legal

²⁵⁸ See FANS II terms of reference Doc 9623, *infra*, note 259. The plan is produced in Appendix A to the document at 8A-1

²⁵⁹ ICAO, *Special Committee for the Monitoring and Co-ordination of Development and Transition Planning for the Future Air Navigation System (FANS Phase II)*, Fourth Meeting Montreal, 15 September – 1 October 1993, report. (Doc 9623, FANS (II)/4, 1993), at 1 and 8-1 on the Global Co-ordinated Plan.

²⁶⁰ See, now ICAO, *Global Air Navigation Plan for CNS/ATM Systems*, (Doc 9750-AN/963, 1st ed. 2000)

²⁶¹ The FANS II Report *supra*, note 259, at 8A-34, and the Global Plan *Ibid.* at I-2-1.

²⁶² ICAO, *Report of the Tenth Air Navigation Conference*, Montreal 5-20 September 1991 (Doc 9583, AN-CONF/10, 1991).

²⁶³ *Ibid.* at 9-1. Recommendation 9/1. See also Boakye Danquah Kofi Henaku, *The Law on Global Air Navigation by Satellite, A Legal Analysis of the ICAO CNS/ATM System*, (Leiden: AST, 1998), at 86.

²⁶⁴ Doc 9685 *Ibid.* Recommendation 5/1.

²⁶⁵ ICAO policy on CNS/ATM Systems Implementation and Operation developed and adopted by the ICAO Council on 9th March 1994.

²⁶⁶ The policy statements (A29-8 and A29-9, 29th Session, Montreal, 22 September to 8 October 1992) have now been consolidated. See Assembly Resolution A31-6, (31st Session, Montreal, 19 September to 4 October 1995) *Consolidated statement of continuing ICAO policies and practices related to*

arrangements.²⁶⁷ The development in GNSS has closely followed ICAO's progress in its CNS/ATM system.

Europe's regional approach has formed one of the main initiatives in this field, which might enhance the implementation in the acceptability of GNSS for Aviation.²⁶⁸

A World-wide CNS/ATM systems implementation conference was convened by ICAO in Rio de Janeiro in 1998.²⁶⁹ The Conference focused on the primary issues of implementation, financing and management of the CNS/ATM systems. The Conference considered an efficient ATM system a critical factor to a successful development of business in the global economy.²⁷⁰ The Conference produced a number of conclusions and recommendations acknowledging the importance of regional solutions with regards to the development of the global legal and instrumental framework.²⁷¹ The Conference recommended that States and groups of States should adopt a co-operative and multinational approach to ensure seamless operateable systems at regional and global levels, and to co-ordinate with other adjacent areas to avoid proliferation of systems to reduce costs and increase safety and efficiency.²⁷² Providing CNS/ATM systems components with co-operative ventures and measures, such as delegation of services and sharing of data, could accommodate this.²⁷³

2.6 Legal Aspects and ICAO Action and Policy

The technical development has always been well ahead of the regulatory framework in this field. What makes the introduction of the GNSS somewhat more difficult is that it is usually implemented in a highly regulated industry and it is likely to be operated by

communication, navigation and surveillance/air traffic management (CNS/ATM) systems (Doc 9730, Assembly Resolutions in Force, 1998), at II-18.

²⁶⁷ *Ibid.* and Henaku *supra*, note 263, at 87.

²⁶⁸ Roderick D. van Dam, "Recent Developments at the European Organization for the Safety of Air Navigation (Eurocontrol)" (1998) *Annals of Air and Space* Vol. XXIII, 309 at 317.

²⁶⁹ See ICAO, *World-wide CNS/ATM Systems Implementation Conference*, Rio de Janeiro, 11-15 May 1998, Report (Doc 9719 1998)[hereinafter the Rio Report].

²⁷⁰ The Rio Report, *Ibid.* at 1-3.

²⁷¹ van Dam, *supra*, note 268, at 317.

²⁷² The Rio Report *supra*, note 269, Recommendation 2/7, at 2-4.

²⁷³ *Ibid.* Recommendation 2/5, at 2-4.

few providers parallel to the conventional systems for a considerable time. Because of the costly development of the GNSS systems and a small number of providers of the space segments, it has been referred to as “natural monopoly.”²⁷⁴ Therefore, issues like safety, accessibility, continuity and accuracy of the services followed by other fundamental issues, such as non-discrimination and State sovereignty, and the principles that have been founded in the Chicago Convention become more important. ICAO and the international aviation community have addressed some of the problems. One of them is the above-mentioned Council’s statement from March 9, 1994, and Assembly Resolutions A29-8 and A29-9 on the CNS/ATM policy. The latest ICAO Policy on CNS/ATM Systems Implementation and Operation and GNSS is found in Assembly Resolutions A31-6, and A32-19.²⁷⁵ The Resolutions declaring that the principle of universal accessibility without discrimination shall govern the provision of all air navigation services provided by way of GNSS Systems is the most important element of the CNS/ATM systems. It also states that implementation and operation of GNSS Systems shall neither infringe nor impose restrictions upon States sovereignty, authority or responsibility in the control of air navigation and the promulgation and enforcement of safety regulations. The Statement affirms that continuous availability of service from the GNSS Systems shall be assured. However, a Statement of ICAO Policy is not a binding instrument, although it may carry strong political weight and high persuasive value.

To provide a more definitive assurance, ICAO made transitional arrangements by exchanging letters with the United States and the Russian Federation where they state that the systems will be available, continuously and on a non-discriminatory basis, to all civil users, subject to funds and free of charge.²⁷⁶ The exchange of State Letters represent a step in the establishment of a legal framework with regard to GNSS and contain commitments concerning universal accessibility and continuity of GNSS services. However, the exchange of letters is not a formal international agreement and the GNSS

²⁷⁴ See Milde *supra*, note 26 at 197.

²⁷⁵ See ICAO Assembly Resolution in Force Doc 9730 *supra*, note 14, at I-44 and V-3.

²⁷⁶ The exchange of letters with the United States took place on the 14th October and 27th October 1994. The exchange of letters with the Russian Federation, took place on the 4th June and 29th July 1996. See

services are only available to the extent determined by the providers.²⁷⁷ There are number of other legal issues that need to be dealt with, such as liability, certification and financing of the augmentation systems.

It is the ICAO's established policy that GNSS should continue to be implemented.²⁷⁸ The implementation is an evolutionary progression from existing global navigation satellite systems. The GNSS is a reality and in the near future it is likely be the second most commercialized space application after telecommunications. The conventional means of navigation by the use of ground based navigational aids is still a primary source for navigation, but the pace of development has called for emphasises on co-ordination of compatible equipment and technical standards, and the preparation for the relevant ICAO SARP'S are now underway.

The ICAO CNS/ATM system implementation has focused on the regional, multi-state and multi-regional solutions, rather than solutions for individual States.²⁷⁹ For that purpose, ICAO formed a new level of ANP decision-making structure, with the representatives of All Regional Implementation and Planning Groups (ALLPIRG) to implement the CNS/ATM on a global planning scale with a Global Co-ordinated Plan for Transition to the ICAO CNS/ATM Systems. ALLPIRG is to review the ICAO inter-regional co-ordination mechanism for CNS/ATM systems implementation and to examine major implementation problems and their possible solutions.

It is likely that in the near future GNSS will meet the necessary accuracy requirement to enable terminal and precision approaches, irrelevant of weather conditions, equal or better than the conventional systems have been providing. This will allow seamless navigation from take-off to landing and will replace diversity of the conventional navigational systems and to some extent radar and visual techniques.²⁸⁰ This will reduce

Milde *supra*, note 26, at 201. The US document is reproduced in Schwenk *supra*, note 17, in Appendix 11, at 273.

²⁷⁷ Milde *Ibid.* at 199.

²⁷⁸ See Resolution A32-19: *Charter on the Rights and Obligations of States Relating to GNSS Services*, at V-3, and Resolution A32-20: *Development and elaboration of an appropriate long-term legal framework to govern the implementation of GNSS*, at V-4. Assembly Resolutions in Force Doc 9730 *supra* note 14.

²⁷⁹ Henaku *supra*, note 263, at 92.

²⁸⁰ See Gibbons *supra*, note 237, at 213. It is expected that conventional systems like Loran-C, Omega, INS, VOR, NDB, DME, ILS, MLS etc. will become redundant in the medium term.

the cost of on-board equipment and the operational complexity of using multiple systems, save hours of flying time, at least on longer routes, with corresponding fuel saving and economic benefits for the flying public in the long run.²⁸¹

The route structure has already started to change. States are establishing RNAV areas and GPS routes and de-commissioning of navigational aids has begun. This development has led to the establishment of GPS routes in Iceland and was one of the reasons for not renewing the INGO VOR/DME for domestic use.²⁸²

It is not the purpose of this thesis to explore these developments further or in more details. The technical means are there, and the system availability, implementation and the accumulation of the full benefits are to come. The legal problems tend to be solved either by agreements or in courtrooms, but they will not stop the development.

The important issues here is the fact that the technical means are available and are being implemented through international bodies like ICAO and other multi-state, regional or multi-regional agreements. What are the consequences and where does Joint Financing fit into this? A study of the institutional and economical consequences of this development in the Joint Financing context may help to answer these questions.

2.7 Institutional and Economical Consequences

2.7.1 General

Despite the important technical solutions and systems suggested by the FANS committee, additional solutions to the operational institutional and economical questions might have future benefits and eventually will have effects outside of the technical arena.²⁸³ The international ANS and aviation environment must and will change due to the fact that the implementation of the satellite system concept cannot be confined to a single (sovereign) State, and the benefits will not be fully embraced unless globally

²⁸¹ *Ibid.* at 210.

²⁸² The decision has been made to renew the facility to accommodate international aviation, which is still on the NAT/RAN PLAN.

²⁸³ Henaku *supra*, note 263, at 109.

applied.²⁸⁴ Despite the same objectives of safe and efficient operations of international civil aviation, the conventional and the new satellite-based systems operate on different principles with different technical, operational and institutional logic.²⁸⁵

The sources of the systems differ and so do the institutions providing the various sub-systems. The terrestrial-based system may be characterized as a unified and simple form of relationship where the source of the service coincides with the target and the institutions exercising control (*de facto* and *de jure*) over the provisions and usage of the system. The space based-system on the other hand is more diffused and complex system with more than three entities involved in the provisions of a single sub-system and where the exercise of functional control over the various aspects is not and cannot be unified in a single entity.²⁸⁶

Due to the high development and operational cost of GNSS, it is likely that for the most service providers the CNS system originator will be extraterrestrial. The question of the source and system control may cause legal problems. However, it should be born in mind that conventional navigation aids transmit cross-border and define routes in more than one State. In the long-range navigation over the high seas, self-contained system have been available and used for years with less accuracy and reliability than the GPS.

For our purposes, the object of interest is the likely centralizing effect, which the space-based system will have on the ANS systems. Due to the extra terrestrial nature of the satellite systems which can't be confined to single State, with the exception of the US, and due to the high costs of the augmentation systems, the solutions calls for multi-state or regional adaptation and finance. This is a development already underway in some regions (EUR). Some of the space systems are already operational, like the GPS, others, like the augmentation systems, are underway and will be available to operators whether their governments participate in its financing or not, provided the aircraft is technically equipped and certified. It will, for example, make no difference whether the Bulgarian government participates or contributes to GNSS or the EGNOS systems. If the Bulgarian

²⁸⁴ See e.g. Henaku *Ibid.* at 110.

²⁸⁵ *Ibid.*, at xvii.

²⁸⁶ *Ibid.*

aircraft are GNSS equipped they will use the system, provided that they have a licence to do so. This is similar to the ANS in the North Atlantic where aircraft received services irrelevant of their State participation in the Joint Financing scheme.

2.7.2 Remedies for Non-Reasonable Adequate ANS Facilities

The sections above discussed various satellite technology-based systems. What is their overall global affect on the aviation industry and, in particular, on the Joint Financing?

First of all, as a consequence of the full implementation of the CNS/ATM systems and the GNSS, technology will cater for the possible expanded capacity of ACC's particularly over the high seas.²⁸⁷ This will happen due to the extended range of the CNS systems, automation in the ATM system and increased accuracy capable of providing for safely reduced separation, an advantage that may be used to provide better service, to accommodate more air traffic and/or to expand the service area.

“As a result it will be technically and economically feasible to merge many flight information regions (FIR's) into what could be termed a single air traffic management region and, correspondingly, to reduce the number of ACC's.”²⁸⁸

The relocation of ATC service providers to fewer centralized locations should result in increased labour productivity and reductions in unit costs. It should also cater for economies of size.²⁸⁹ In the NHIP study a significant greater savings were found in the organisational field than in the pure CNS/ATM functions, where substantial reductions could be made at the cost mostly of human recourses within the air navigation services.²⁹⁰ The study indicated strong benefits of the regional approach and economy of size. A decision to “merge” would be made by the individual States and assuming that the

²⁸⁷ See ICAO, Economics Manual Doc 9161/3, *supra*, note 150, at 55

²⁸⁸ See the Economics Conference, *Specific Organisational Aspects Pertaining to the ICAO CNS/ATM Systems* (Presented by the Secretariat) ANS Conf-WP/15, 4/2/98, at 4. Other potential areas of co-operation could be in planning, research and development, training, technical support, meteorological services for air navigation and aeronautical information services.

²⁸⁹ See the Rio de Janeiro Conference, *supra*, note 269, *Costs and Benefits for Providers and Users* (Presented by the Secretariat) WW/IMP-WP/20, 13/2/98, at 6.

²⁹⁰ See, the NHIP study *supra*, note 233, at C 5 and C 25. The net value of the savings in the organisational field for the 15 years period was estimated at US\$ 312 million (1994 dollars).

decision would depend more on the situation in the State concerned, the solution will be strongly influenced by the relevant government policy, that is, security and social matters, rather than pure technical or economic reasons.²⁹¹

In any case, there will be difficult social-economic issues involved in the merging or

de-commissioning of outdated systems, the out-sourcing of service provision, as well as the implementation of multi-national facilities. This should be done on a planned basis with the aim to avoid parallel operations of unnecessary redundant systems.²⁹²

This development will lead to more regional, multi-state or multi-regional implementation and the increase of the regional importance.²⁹³

Secondly, the problem for individual States in providing reasonable adequate ANS facilities and services will become a “minor problem,” since all the necessary navigational facilities and services will be available from extra-territorial sources. This has already been proved in the transcontinental flights between NW-Europe and Asia, over the Russian Federation and other former USSR States, where navigation facilities were not adequate or non-existent and aircraft have been operating with satellite based positioning systems (GPS). The same development is in the pipelines concerning ATM (ATC) services. If they are not available or not adequate, they can be provided via satellite irrelevant of the location of the provider or user in the near future. The services will naturally be charged in accordance with the existing ICAO policies. A sovereign State must approve such operation and the provisions for the services. However, an ICAO Member State must honour its obligations, according to Articles 28 and 69, as far as practicable. A State unable to finance directly its services and facilities, but which has the options of extra-terrestrial ANS services, can hardly reject such an option and be at the same time considered a *prima facie* candidate for joint financing.

It seems that the fundamental sovereignty issues are still firmly established in the Chicago Convention and customary international law, but they have become less important in the global economics of the international aviation.

²⁹¹ *Ibid.* ANS Conf-WW/IMP-WP/15, 4/2/98, at 3.

²⁹² *Ibid.* *Institutional Aspects of CNS/ATM Implementation in the ICAO European Region* (Presented by the Secretariat) ANS Conf-WW/IMP-WP/43, 5/2/98, at 5.

²⁹³ Henaku *supra*, note 263, at 93.

ICAO has attempted to reflect this development in its work and policies. This has been done with emphasis on regional solutions and various “new” institutional forms, such as autonomous authorities²⁹⁴ and operating agencies.²⁹⁵ This has been revealed in the growing interest and need for co-operative and multinational approach to provide facilities and services.²⁹⁶ The Organisation has also emphasised the importance and potential value of joint ventures and more recently encouraged the application of joint financing schemes in the provision of air navigation services.²⁹⁷ However, as set forth in Chapter XV and ICAO policy A1-65, the Joint Financing concept is a collective aid for the unable (State), not a financing method as such.

In the following sections will study the structural changes brought about by the economical rational, the fundamental capitalistic principles and conventional wisdom that governments can do no good, and the market can do no wrong.

3. Economical Changes

3.1 Structural Changes, Global Trends

3.1.1 General

Significant economic and technical development is changing the operational environment of air traffic services. This is largely due to the development in satellite position systems and automation in air traffic management systems, which is considered necessary to handle safely the constant increase in the air traffic. The cost of the development of the new techniques is enormous and only the economical giants have had the necessary development funds. The new technique comes with a high price tag and many States don't have the necessary funds to modernize. Therefore private players have been invited to participate or run the services. Another development is in the Regional

²⁹⁴ See *e.g.* Economics Manual Doc 9082/5 *supra*, note 150, at 9. Conclusion 2/1 and Recommendation 2/4, of the Rio de Janeiro Conference *supra*, note 269, at 2-3.

²⁹⁵ See *e.g.* Doc 9161/3, *Ibid.*, at 10.

²⁹⁶ *Ibid.* at 13. Also, Recommendation 2/6 and 2/7 of the Rio de Janeiro Conference *supra* note 269, at 2-4.

²⁹⁷ See ICAO, Economics Conference ANSConf-WP/5 16/2/00, *supra*, note 74, at 4.

approach to finance projects in this field like the European approach. Globalization and privatization are the trends. The players are likely to become fewer and bigger.

It has been said that privatization, competition and globalization are trends fuelled by economic and political forces that will ultimately prevail in this field.²⁹⁸ The emphasis that States have had on sovereign rights mainly by the use of economic regulation to manipulate the growth of their flag carriers seem to be declining. At least, as it is reflected in privatization of government airlines, globalization and integration of trade markets and the pressure exerted by many States to include air transport in GATS. The air transport industry is becoming just like any other business, and must comply with the general economics of the capital system and pay for the ancillary services, which it requires.

H. Caplan wrote in 1961 in the *Journal of the Royal Aeronautical Society*:

“Individual national sovereignty is an ancient concept which may not survive the twentieth century. The increasing economic interdependence of nations, the ‘explosion’ of world population and the abuse of sovereign power – may ultimately lead to dismantling of the extreme apparatus of individual sovereign power.”

Approximately ten years later he admitted himself wrong,

... there is no sign of any disappearance of national sovereignty within the next century – but there is evidence that economic interdependence reduces sovereign independence to harmless proportion.²⁹⁹

As mentioned in Part I above, the ICAO Assembly, in its policy on joint financing schemes, wanted all possibilities of direct financing by the States to be exhausted before applying for aid, as stated in Resolution A1-65.³⁰⁰ This was further emphasised in the

²⁹⁸ See, Patric V. Murphy, DOT, *United States International Air Transport Policy*, April 25, 1995, 60 FR 21841[FR Doc. 95-10584].

²⁹⁹ H. Caplan, “The Future of Aeronautics” ed. John E Allen & Joan Bruce (London: Hutchinson & Co, 1970), *Law for Aerospace Activities 1966-2066*, 401 at 411.

³⁰⁰ ICAO, Assembly Resolution A1-65 *supra*, note 49, see, Articles 3,1 to 3.3 in Annex 1 of the Resolution.

Assembly's Resolution A16-10.³⁰¹ All means of financing had to be exhausted (means compatible with the Chicago Convention) before applying for ICAO for Joint Financing according to Chapter XV. In the resolution, the Assembly refers, in particular, to operating agencies as other means of financing.³⁰² In addition to international operating agencies, the *Manual on ANS Economics* refers to basically three types of organisational form: government department, autonomous public sector organisation and private sector organisation.

States unable to undertake their obligation under Articles 28 and 69 of the Chicago Convention are obligated, according to ICAO Joint Financing Policy, to exhaust all other possible means of arranging directly for provisions of adequate facilities and services before applying for the aid through ICAO. Other considerations include establishing whether there are other means available to operate services and facilities. Those in turn include privatization of the air traffic services, and/or another State, international organisation or a foreign private entity providing the services. All the possibilities should be aimed at self- sustaining services not requiring Joint Financing aid.

Below is a study of the general development in this field and the main motives for a change from government entity to an independent, the study that looks at whether the Joint Financing Agreement would be a hindrance in such a change. In doing this, various economic factors and trends that might affect the future of the Joint Financing Agreement, will be examined.

3.2 The Development in the Service Providing Sector

The development in "other means" of financing, outside the governmental funding of the ANS, has been limited to a few private entities or organisations. Slowly this has been changing and an increased number of States have either corporatized or privatized,³⁰³ a

³⁰¹ The Resolution refers to loans, operating agencies, technical assistance in the different forms, in which it may be available.

³⁰² ICAO, Assembly Resolution A16-10: Joint Support Policy, *Assembly Resolutions in Force* (Doc. 9730, 1998) Article 2, at IV-4.

³⁰³ Definition: The term privatization in this context is generally taken to mean the transformation where the responsibility has been moved from the government to an independent organisation and is subject to

trend consistent with the development in the air transport industry where governments have systematically been moving out and privatizing.³⁰⁴

Air traffic services³⁰⁵ have been and are in most parts of the world a traditional government function. Where this change has taken place the transition, from public ANS to a private one has not been uniform between States. A few private corporations without State ownership have been providing ATS for a considerable time. Pan American Airways provided ATS in the Middle East from the early 1950's, and IAL and SERCO, its successors, are providing ATS services at various airports the Middle East and in the United Kingdom.

3.3 Privatization

3.3.1 General

The States' participation in the economy is often referred to as a merger of two functions: as the regulator of public interest, and participation in the economic life. The State participation has often been used as an alternative to government regulation of those sectors. This is often the case where the economic functions are connected with services of social/political character, where there is a close interaction between the State and the management or Boards of the public entities.³⁰⁶

The last decades have been building up increased pressure and a growing demand on public resources. Air traffic services are competing with other high profile services like health, welfare, social services and the educational system for limited public funds and

private law. Corporatization, on the other hand, means a "private" company where the State remains the capital shareowner. Commercialisation in this context is to mean an entity subject to market forces and a competing environment.

³⁰⁴ Most of the European countries have privatized or are in the process, with France being the last one to join the pact.

³⁰⁵ A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or airdrome control service)[hereinafter ATS]. See, ICAO, *Rules of the Air*, Annex 2, (9th ed. 1990 as amended 4. Nov. 1999) at 2

³⁰⁶ Amaryllis Verhoeven, "Privatisation and EC Law: Is the European Commission "Neutral" with Respect to Public Versus Private Ownership of Companies?"(1996) 45 *International and Comparative Law Quarterly*, 861 at 864.

are considered less essential by the often financially drained governments.³⁰⁷ Privatizing public service reduces the State financial burden in three ways. First, by capitalizing on the sale of services.³⁰⁸ Secondly, by removing budgetary drain of annual subsidies.³⁰⁹ And thirdly, when the enterprises become profitable and provide property and income tax revenue.³¹⁰

3.3.2 Why Privatization in ATS?

One can say that the same fundamental issues push for privatization of the ATS sector as in others sectors of the economy. There is a general liberalisation policy on a global scale, which goal has been to abolish government intervention, regulatory restrains and freeing market forces.³¹¹ This is accomplished through the large-scale sale of public and monopoly enterprises and by moving from sector regulations to framework regulations.³¹² In general terms, the focus has been on economics and efficiency.

The globalization of the world economy's and competition is now more on international scale, rather than on the regional or national one. States are at the last stages of subsidising the airlines, which are maturing from government protection.³¹³ The air

³⁰⁷ See G. Finnsson, V. Zubkov *infra*, note 327, at 3. When the UK air traffic services (NATS) were corporatized the Government reduced its funding by 385 million \$ US, over three years, which was replaced by the Private Finance Initiative. See J. D. Morrocco "UK restructures air traffic control" *Aviation Week & Space Technology* (April 8 1996) 144:15 at 32. Also, the Aviation Safety Report, on the US situation *infra*, note 317, at 789.

³⁰⁸ See for example the sale of NAV CANADA for US \$ 1.125 billion.

³⁰⁹ The privatization of ANS in New Zealand turned from US \$ 40 million annual subsidise to \$ 57 million in dividends and taxes. See Treanor *infra*, note 370, at 660.

³¹⁰ See on this subject and generally on privatization, E. D. Craig, "The Benefits and Costs of Airport Privatization" in S. Hakim, P. Seidenstat & G. W. Bowman eds. *Privatizing Transportation Systems*, (Westport: Praeger, 1996), 87 at 88.

³¹¹ In the Aviation industry this trend was initiated by President Carter in the 1970s and accelerated by Margaret Thatcher (1979) a catalyze in this aspect.

³¹² General framework rules on competition, environment, sector regulations, services and safety. Because of the monopolistic aspects of the ANS framework, regulations must be established setting the general principles for charges protecting the consumer/user from potential abuse without interfering in the management or creating unnecessary regulatory cost. Additionally there must be a system for recourse if there is an abuse of this monopoly power.

³¹³ See EU Commissions application of Articles 87-88 (ex 92-93) and Article 61 EEA to state aids in the aviation sector [1994] OJ C350 at 5, and its action *i.e.* in the government aids to Air France, Lufthansa, Alitalia, Aer Lingus, Sabena and others.

transport industry is no longer in need for taxpayer subsidies and must now pay for the ancillary services in the form of user fees, which are now the cost of doing business.

The main factors encouraging³¹⁴ privatization in ATS has been the need for innovative ways to improve the overall system efficiency, the structure of the governmental (congressional) decision making process in financial and technical matters, cumbersome, bureaucratic and complex administrative procedures and obsolete management techniques.³¹⁵ There is need for financial restructuring to make the ANS more competitive and to enable capital investment outside of the Government sector. Finally, private entities and competitive environment are presumed to enhance efficiency³¹⁶ and to lower prices to benefit the user/consumer.³¹⁷ This trend is part of the overall government policies to divest from activities in this field.³¹⁸

The opposing factors have been rooted, firstly, in traditional concepts of public service and the embodiment in the State sovereignty, national security and international commitments.³¹⁹ Secondly, safety of the ANS has been an important factor in the justification of State management and control. Many worry that privatization might impair safety or become a secondary factor behind the private interests in the profit. On the other hand, many fear now that the lack of infrastructure funding by governments is

³¹⁴ Privatized/corporatized ATS agencies are operated in Australia, Austria, Canada, Czech Republic, Germany, Ireland, Latvia, Netherlands, United Kingdom, Swiss and more, but they vary considerably in structure.

³¹⁵ See Francis P. Schubert, *The Corporatization of Air Traffic Services*, (1997) XXII-II, *Annals of Air and Space Law*, 223 at 224.

³¹⁶ One of the issues here is to move the service part from the regulatory and safety oversight institutions. This will *inter alia* enable each sector to focus on its main task of specialization.

³¹⁷ The estimated savings of privatizing the US ATS would save travellers and airlines time worth of 1,5 billion (1994 dollars) a year and the taxpayers 18 billion in a decade. See, Shephard W. Melzer, "Report on Aviation Safety Committee on Aeronautics of the Association of the Bar of the City of New York" (1999) 64 *J. Air L. & Com.*, 771 at note 119 [hereinafter *Aviation Safety Report*]. NAV CANADA services are 100% based on service charge system and those charges were reduced by 11% for the year 1999, NAV Canada Annual Report 1999, at 6.

³¹⁸ See "The study of the Commercialisation of the Air Navigation System in Canada" Discussion Paper Series 1994, Discussion Paper No. 1, *Principles and options for Commercialisation*, at 7. In the study the argument is the following at p. 8: "The aviation industry is mature in Canada and it is difficult to justify continuing taxpayers support for users of the air navigation system. The users of ANS should pay their own way. Even without commercialisation of ANS, the government's financial situation requires that Transport Canada moves to full cost recovery of ANS."

³¹⁹ Schubert *supra*, note 315, at 233.

dangerously low and possibly becoming a safety hazard.³²⁰ Restricted or scarce ATC capacity may also have considerable economical impact for the airlines in higher cost due to delays and may have an additional impact on the ongoing restructuring process in the airline industry due to limited access.³²¹ Thirdly, due to the economical importance of the air transport industry, a public accountability and legislative oversight is necessary.³²² Finally, public ownership has been considered as a necessity to control this monopolistic sector to ensure adequate service at a reasonable price, whereas “the only thing worse than a public monopoly is a private one.”

Despite the fact that ATS operate in a monopoly environment and only one service provider can operate in a given sector, they are providing services at different costs, which might enable a limited competition in sector service prices on alternative routes.³²³ But the competition in this sector would be more of a performance competition than marked share competition. Incentives for management in this sector can be created on the basis of the corporate performance relative to its peers,³²⁴ with the comparison of services and user charges. In this regard, the ICAO policy has emphasised the transparency of the cost as reflected in the user charges.³²⁵

ICAO has been an advocate for a transformation from government run entities to independent ones, but prefers to use the term “autonomous organisation” or corporation.³²⁶ However, ICAO points out that the change

□ does not necessarily mean that the organisation has to move out of the scope of government jurisdiction, or that the government can abdicate its responsibility for the

³²⁰ See the Aviation Safety Report, *supra*, note 317, at 794. NAV CANADA claims that since the beginning of privatization, its irregularities (all types of incidents) have decreased from approximately 2.4 to 1.8 per 100,000 movements in three years. See Nav Canada Annual Report 1999, at 8.

³²¹ See e.g. OECD, *The Future of International Air Transport Policy, Responding to Global Change*, Organisation for Economic Co-operation and Development, 1997, at 107.

³²² Aviation Safety Report, *supra*, note 315.

³²³ Schubert *supra*, note 315, at 227.

³²⁴ See R. J. Zeckhauser, M. Horn, “Control and Performance of State Owned Enterprises” in Karl Brunner ed. *Privatization and State-Owned Enterprises*, (Boston: Kluwer Academic Publishers, 1990), 7 at 42.

³²⁵ ICAO, Doc. 9082/5, 1997) *supra*, note 158, at 10

³²⁶ ICAO’s Council endorses governments to explore the potential benefits of establishing autonomous authorities to operate their air navigation services, *Ibid.* at 9. Autonomous authority is defined by ICAO as “an independent entity established for the purpose of operating and managing one or more airports and/or air navigation services, which is empowered to manage and use the revenues it generates to cover costs.” *Ibid.* at 18.

provisions of air navigation services as laid down by the Convention on International Civil Aviation.³²⁷

The 1998 Rio de Janeiro Conference concluded that in some States the increased efficiency and financial transparency with potential economic benefits might result by assigning the operations of ANS to autonomous entities.³²⁸ The Conference recommended that States and groups of States might consider this possibility, in particular where traffic density would permit through generation of user charges, self-sustained operations.³²⁹ In most instances where services have been transformed, they have been transferred to autonomous government owned entities.³³⁰ For the States unable to finance the ANS, private entities and private funding are a viable alternative in the changed economical environment.

3.4 Commitments and responsibilities

3.4.1 Chicago Convention

A State has absolute sovereignty over the airspace over its territory and territorial waters.³³¹ The adherence to the Convention incorporates a number of obligations on the States, which must be considered particularly in reference to a reform or privatization of ANS.

a) A State is responsible for providing ANS, according to Article 28 of the Chicago Convention, as mentioned above. Accordingly, the Icelandic State is responsible for ensuring that these services are provided in its territory, but it is not required that the State itself provides the service. Standard 2.1.1, of Annex 11, requires that the State determine the portions of the airspace where air traffic services will be provided but they may “arrange for such services to be established.” In Standard 2.1.2, services over the

³²⁷ G. Finnsson, V. Zubkow, “The ICAO view on Commercialization of Air Navigation Services” (August 1999) The Civil Air Navigation Services Organisation, *Corporatization of Air Navigation Services*, a special report, August 1999 [hereinafter the CANSO Report] at 4.

³²⁸ See the Rio Report *supra*, note 269, at 2-3.

³²⁹ *Ibid.* at 2-3.

³³⁰ Between 15 a 20 ATS are autonomous of whom only one has moved completely into the private sector, NAV CANADA.

high seas shall be determined by regional air navigational agreements. According to Standard 2.1.3, the State shall designate the authority responsible for the service. Accordingly, the services can be delegated to other entities than the State, commercial or private, but this only applies to the operational functions. In the operation of air navigation facilities and services, the State remains ultimately responsible for setting and maintaining the standard and quality of services,³³² and the compliance with the Chicago Convention.

b) There are safety issues to be considered in reference to Articles, 12, 37 and 38 of the Convention, including the regulatory functions and monitoring of application and adherence to the safety regulations.

c) There are liability considerations strongly tied to the first two obligations: liability for the failure of the services both in scope and quality, and the general safety violations of the service provider.

d) Article 15 of the Chicago Convention defines the basic criteria for charges for the ANS facilities. It requires the uniform conditions to apply and prohibits discrimination in application of charges between national aircraft and foreign Member States aircraft. It also prohibits charges for entry and exit only.³³³

Most States claim that they are operating a cost based services. The Governments have normally set the prices of the services by regulation or decrees. This has fitted into the normal regulatory pricing systems, but has not enabled the users to ascertain how the user fees are composed.

In the Icelandic CTR/FIR, the Joint Financing Agreement only permits a cost based pricing of the user fees³³⁴ and it is subject to the audit by the Council and user States.³³⁵ ICAO does not perform this audit on user fees charged by Canada or the United Kingdom

³³¹ Article 1 of the Chicago Convention.

³³² See ICAO, Doc. 9161/3, *supra*, note 150, at 2. Also, the Economics Panel Report (Doc 9660) *supra*, note 232, at 9. See also, Schwenk *supra*, note 17, at 157.

³³³ See the Economic Manual *supra*, note 150, at 2.

³³⁴ Articles VIII, IX and XIV of the Joint Financing Agreement.

³³⁵ *Ibid.* Article IX (4).

for the crossings over the Atlantic, south of the Icelandic CTR/FIR or in other areas over the high seas. However, the charges in those areas are open for review by the Council:

All such charges shall be published and communicated to the International Civil Aviation Organization: provided that, upon representation by an interested contracting State, the charges imposed for the use of airports and other facilities shall be subject to review by the Council, which shall report and make recommendations thereon for consideration of the State or States concerned.³³⁶

States-parties to the Chicago Convention are expected to adhere to the ICAO policy on air navigation charges, as set forth in the ICAO *Manual on Air Navigation Services Economics*.³³⁷ A privatized or incorporated ANS entity in Iceland would be setting its own prices subject to government approval or scrutiny, provided it does not violate the policy set forth in the Economics Manual.

3.4.2 Joint Financing Agreement

It can be seen as consistent with Article III (1) the Joint Financing Agreement to establish an independent, autonomous or private entity to comply with the requirements of maintaining the services “in an efficient manner and with the greatest degree of economy consistent therewith.” However, this must be done only “so far as practicable” and as long as it is consistent with other provisions of the Agreement. As discussed above, the Agreement is a multilateral agreement between the Government of Iceland and the Contracting Governments to finance the air navigation services, with reciprocity of duties and obligations. According to the Agreement, the Icelandic Government, and not a third party, will provide, operate and maintain the services. The services will be provided without interruption, in as efficient and economical manner as practicable.³³⁸ The Icelandic Government is to operate a system of user charges for the services provided,³³⁹ and it is not to make any international arrangement for provision, operation, maintenance,

³³⁶ Article 15 of the Chicago Convention.

³³⁷ ICAO, Doc 9161/3, *supra*, note 150.

³³⁸ Articles I and II of the Joint Financing Agreement.

³³⁹ *Ibid.* Article XIV.

development or financing of any or all of the services without approval of the Council.³⁴⁰ This would *e contrario* mean that a national change would not require the Councils approval. However, Article 69, of the Chicago Convention requires the Council to consult with the State and other States affected by unreasonably adequate facilities or services in order to remedy the situation. The Council may make recommendations for that purpose. This consultation produced the existing Joint Financing Agreement, including the constitutional and administrative structure. The Agreements present structure reflects its original nature as an “aid” where the expenditure had to be controlled and costs and quality of the services monitored. A change in this structure would call for new consultations.

Secondly, the administrative duties placed on the ICAO’s Secretary General,³⁴¹ and the duties of the Council,³⁴² according to the Joint Financing Agreement, are directly between the ICAO’s bodies and the Government of Iceland who is the direct beneficiary of the aid. Even if a new private or corporate body would be properly endorsed by national law to comply with the administrative and audit functions by the Secretary General in the Agreement, ICAO would be a third party to it.

Thirdly, it is of great importance to the States-parties to the Joint Financing Agreement who the provider is, since this would influence both the service and financial responsibility.

Finally, there seems to be a paradox in establishing an autonomous, or private, independent entity if its independence is to be governed by various restrictions and cumbersome administrative process of the Joint Financing Agreement.

The Icelandic Government would have to co-ordinate any changes with both ICAO Council and States-parties to the Agreement for its amendment to reflect such changes.

³⁴⁰ *Ibid.* Article XV. The UK Government collects the user charges as an agent for the Icelandic Government.

³⁴¹ *Ibid.* Articles IV, VIII, IX, XII.

³⁴² *Ibid.* Articles IX, XIII.

3.4.3 National Obligations

The Icelandic CAA is a Government organization entrusted with the task of providing the ATS services, including the services stipulated in the Joint Financing Agreement, and has the regulatory competence necessary to perform the assignment, according to the Aviation Act No. 60/1998.³⁴³ In Article 7 of the Act, the CAA is authorized to participate in or to form corporations or other entities with limited liability or independent institutions to perform services within the current tasks of the Agency, if the Minister of Transport agrees. Financing of the new bodies is subject to parliamentary approval.³⁴⁴ The provision has a limited significance, since there is no reference to various institutional, regulatory, safety oversight, labour and liability issues that would be required in the case of the transfer of the air navigation services. A transfer of the ANS to an independent entity would call for a detailed legislation on these issues.

Iceland is a member of European Free Trade Association³⁴⁵ and as such forms a part of the European Economic Area,³⁴⁶ an agreement between the EFTA States and the EU States. It established a common internal market in the sphere of free movements of goods, services, capital and workers.³⁴⁷ The four freedoms are supported by the EU rules in the field of competition, state aid and public procurement,³⁴⁸ which are entirely transposed to the EEA.³⁴⁹ The EEA Agreement incorporates the primary legislation of EU as it has developed over the last 30 years, including the secondary legislation (*Acquis*

³⁴³ Lög um loftferðir nr. 60/1998.

³⁴⁴ This means *de facto* that Parliament must approve the transition.

³⁴⁵ *Convention Establishing the European Free Trade Association* signed at Stockholm on 4th January 1960 (entered into force on the 3rd of May, 1960). Iceland acceded to the Convention on the 1st of March 1970 (see, Council Decision No. 17 of 1969) [hereinafter *EFTA*]. The Member States of the European Free Trade Association are Iceland, Liechtenstein, Norway and Switzerland.

³⁴⁶ *Agreement on the European Economic Area*, signed at Oporto 2 May 1992, as adjusted by the Protocol Signed in Brussels on March 17, 1993, (entered into force January 1, 1994) [hereinafter the *EEA Agreement*].

³⁴⁷ *Ibid.* Article 1 and Chapters II and III.

³⁴⁸ *Ibid.* Chapter IV.

³⁴⁹ Christopher Bright, *The EU: Understanding the Brussels Process*, (Chichester: Wiley, 1995) at 70.

Communautaire),³⁵⁰ in to the EFTA legislation. The Agreement is dynamic and exceptional in the sense that it is to be updated continuously reflecting changes in the EU legislation. This means that new EU Regulations and Directives in the sphere of the EEA Agreement must be adopted by the EFTA states, including legislation where the Commission is extending its competence to regulate on these issues. The EU legislation in the Aviation sphere and on competition is applicable in Iceland. This means that a private or public ANS, granted with special rights, is bound by the EU competition rules *inter alia* in the pricing of the services. It is bound by transparency of the pricing and the connection between the prices and the quality, cost and normal or reasonable profit of the service. In this aspect the ICAO Council policy³⁵¹ and the EU competition rules coincide and ensure supervision and control of pricing of services in this sector whether provided by the State or a private entity.³⁵²

An important issue in the structural change is the question of ownership and control. There are number of arguments favouring the Icelandic Government to maintain ownership and control.

a) Article I, of the Joint Financing Agreement, requires the State to provide the services, and, therefore, an effective ownership and control is required. Most of the advantages of privatization, or corporatization, can be obtained without defusing ownership.

b) The State remains responsible and liable for the services irrespective of the provider.

³⁵⁰ Applies to all the *Acquis Communautaire* until 31 of July 1991, with an additional package to January 1st 1994. Most of the legislation is covered in the extensive Protocols and Annexes to the Agreement, see, Article 7 of the EEA Agreement.

³⁵¹ The policies are found in the Councils Statements Doc 9082/5 *supra*, note 158, and in Doc 9161/3 *supra*, note 150. A Contracting State is not bound to adhere to the Council statement provisions or recommendations but there is a moral obligation to do so since they have been developed by major international conferences (Doc 9161/3 at 2).

³⁵² See e.g. EC, *Commission Decision 1999/198/EC, of 10 February 1999, Ilmailulaitos/Luftfartsverket* C 239 OJ L 069, 16/03/1999.

c) As to financial liabilities, as long as the State remains responsible for the overall system any fault in financing by a private entity is likely to backfire on the State, in reference to the quality and scope of the services.

d) Another important issue in this context is the concept of globalization of the CNS/ATM systems, which requires the adherence to universal accessibility and observes the sovereignty, authority and responsibility of Contracting States for implementation of the systems.³⁵³ There is a requirement for flexibility in reference to future planning of ATS on a global scale, due to foreseeable global concentration and technical changes likely to affect the operational environment of the services.³⁵⁴ Handing over the services to a private entity, which must invest extensively is questionable when the future is uncertain in this aspect. The development might require the need for transfer of the services, partly or all cross-border or to be reduced significantly. This might cause financial damages to the service provider and State liability, if it is not the provider.³⁵⁵

3.5 From Public to Private

The fundamental transformation from the government domain to a private one is a move from a public law environment to a private one.³⁵⁶ The most important changes for an independent ANS provider would be in the spheres of financing, responsibilities/liability, administrative process, status of the workforce, all of which aim at enhancing efficiency and economy. This will be discussed below.

³⁵³ Assad Kotaite, "Is there a Lessening of State Sovereignty or a Real Will to Co-operate Globally" (1995) XX, 6, Air & Space Law, at 290.

³⁵⁴ See Kotaite *Ibid.* GNSS in it self does not require state ownership and control, but it must approve its use. This only refers to the technical development and its impact on services.

³⁵⁵ This might be an important factor in the political willingness of States to permit cross-border ATS and possibly cater for economies of size in this industry. A State, which has capitalized on the privatization of services, is unlikely to be willing to refund a service provider that might become redundant in the global restructuring. This factor is more important in the congested European airspace with burdensome territorial restrictions for the ANS and where concentration is taking place both in the economical and political arena.

³⁵⁶ Schubert *supra*, note 315, at 230.

3.5.1 Financing

Currently the CAA is has two major financial sources. The Joint Financing Agreement is the main one. The level of the services is determined by the Agreement and most of the revenues, 98 of the 95 percent of which is reimbursed to the Icelandic government, are from user charges. The charges are cost based, calculated by combination of the actual and estimated cost of the services and levied on the users. The process for determining the costs was mentioned above, which is a cumbersome process within ICAO. The CAA must co-ordinate its cost and capital investments both with the Council and the Icelandic Government.

If new capital expenditure or additional services are proposed by the Government of Iceland or by the Council, that Government shall furnish to the Secretary General an estimate of the costs thereof, together with such specification, plans and other information as may be required in regard thereto, and shall consult with the Secretary General concerning the methods of supply, design or constructions to be adopted.³⁵⁷

There is a dual process of obtaining approval for investments, where a single one has often been considered reason enough to privatize in order to gain a necessary required flexibility.

If services are to be excluded from the Agreement, the Councils consent is needed (Article XIII (5)). By terminating or changing the Agreement, financial advantages will be gained in more flexibility and the independency of decision making, whereas various provisions in the Agreement are time limited and require secretariat process prior to the Council approval.

The other main source of finance is through the Government budget. All major capital financing must be on "Flugmálaáætlun," a four-year project-implementing plan, which is revised annually by Alþingi (parliament).³⁵⁸ An independent organisation will definitely gain in flexibility if it is free from the government strain governing national projects and enabled open market financing.

³⁵⁷ Article XIII (4) of the Joint Financing Agreement.

³⁵⁸ The plan sets priorities and the annual revision adds new projects and sets budget limits.

3.5.2 Public Procurement

The CAA is bound by the EU/EEA public procurement rules, which requires all State projects or service agreements above to be advertised for tender in the Official Journal of the EU, for a bid within the whole EEA.³⁵⁹ The procurement rules apply to public undertakings and undertakings, which benefit from special or exclusive rights. In essence, this means that as long as the State exercises direct or indirect dominant influence on the entity by virtue of their ownership, financial participation or control are governed by the procurement rules. A limited advantage will be achieved in this aspect, since only a full privatization would resolve this problem.

3.5.3 Responsibilities/liability

A state resuming responsibility for providing ANS, which delegates the service to a private agency still remains responsible for the compliance with the Standards and Recommended Practices. It makes no difference what institutional body provides the ANS or how it is actually provided. The sovereign State must always assume the ultimate liability for damages, which may occur in or over its territory in the process.³⁶⁰ The State is responsible regardless of who provides the services, which is an obvious disadvantage if there is no ownership and control. However, this has not prevented States from privatizing. It only requires a special regulatory measures and efficient monitoring in order to ensure safe, efficient and orderly flow of air traffic in accordance with international standards.

3.5.4 Administrative process

The Administrative Act No. 37/1993 governs the national administrative process. The process is to protect the citizens when the authorities decide as to rights and obligations of individuals.³⁶¹ The CAA is an authority within the definition of the Act.

³⁵⁹ Article 37 EU and 16 EEA and EU directives 93/36/EEC, 93/37/EEC and 93/38/EEC (Utility Directive). The enforcement rules are dealt with in Council Directive 92/13/EEC.

³⁶⁰ See above on commitments according to the Chicago Convention and Schubert *supra*, note 315, at 227.

³⁶¹ Article 1 of the Administrative Act.

The Act applies as well to a private entity if it participates in the regulatory enforcement, which is normally entrusted to the State where it decides as to rights and obligations of individuals.³⁶² The Act would not apply to an independent entity despite the government ownership. This is an important factor favouring the division of responsibilities of the CAA between a regulatory function and service function. The division would again minimise conflict of interest between the regulatory body and the service provider, which, on one hand, is the monitor for quality and compliance of the service and the service provider, on the other hand.³⁶³ This would enhance the advantage of privatization.

3.5.5 Status of the workforce

Most of the employees of the CAA are Government employees,³⁶⁴ protected by the Civil Service Act No. 70/1996.³⁶⁵ The Act applies to the entire ATS workforce. The Civil Service Act, together with the Administrative Act, restricts an employer in many aspects particularly if he or she wants to dismiss or reprimand a worker. The government employment can also be restraining when recruitment is necessary or when wages in the public sector are not reflecting earnings in the private sector,³⁶⁶ but civil servants generally have extensive benefits compared with other employees. However, there are also provisions benefiting a public employer. A limited number of government employees are permitted to strike and only after the collective labour negotiations have been exhausted.³⁶⁷ A civil servant wanting to resign from his or her post can be

³⁶² Páll Hreinsson, *Stjórnsýslögin*, (Reykjavík: Forsætisráðuneytið, 1994) at 43.

³⁶³ The general trend and regulatory process, in Europe, has been to distinguish between the regulatory and service bodies from flight safety investigations. See, EU, *Fundamental principles governing the investigation of civil aviation accidents*, Council Directive 94/56/EC OJ L319/14. In Iceland the Flight Accident Investigation Act No. 59/1996. Most of the States who have privatized/corporatized have divided these functions between separate organisations e.g. UK, Canada, and Australia etc.

³⁶⁴ It depends on the assignment, a general unqualified worker is governed by the Union and Dispute Act No. 80/1938, (Lög nr. 80/1938 um stéttafélög og vinnudeilur).

³⁶⁵ Lög nr. 70/1996 um réttindi og skyldur opinberra starfsmanna.

³⁶⁶ This was an important issue in the corporatization of the German ATS, see Wilhelm Stoffel, "The privatization of Air Traffic Control in Germany" (1996) XXI-II, *Annals of Air and Space Law*, 279 at 288.

³⁶⁷ See Chapter III of the Government Labour Agreements Act No. 9/1986 (Lög nr. 9/1986 um kjarasamninga opinberra starfsmanna).

compelled to stay on the post for additional six months.³⁶⁸ If the Services are transferred from the Government sector the general labour legislation will apply. This would include a fairly liberal collective bargaining power, including the union's right to strike, which can be a great disadvantage in this case, where the consistency of the services are imperative.³⁶⁹

3.5.6 Efficiency

The change in the management, from the bureaucratic government organisational structure would finally as a consequence improve the efficiency of the system.³⁷⁰ This would apply both to domestic and to international bureaucracy, as was discussed above. The overall advantages of the items listed in 4.1-4.6 above, would and should improve efficiency of the whole system, as well as enhance the economical advantages, which is the primary goal of the change. A fundamental catalyst in this aspect is the realisation that the ANS is a service and their goal is to satisfy their customers safely.

The Joint Financing Agreement finances 80 percent of the overall cost of the Icelandic ANS. Any improvement in the efficiency and economics of the overall system will benefit the users since the services are financed by users charges, which are cost based.

³⁶⁸ Article 46 of the 1996 Civil Service Act. The same provision in an earlier act (1955) has twice been applied in disputes between the Government and Air Traffic Controllers in 1970 and in 1995, thus maintaining services, which otherwise would have lapsed.

³⁶⁹ The 1981 strike of the Air Traffic Controllers in USA is considered an important factor in US reluctance to privatize in fear of repetition of similar events. See Shubert *supra*, note 2, at 224, and Treanor *infra*, note 370, at 654. The Icelandic Controllers Union won a court case against the Government in 1997, permitting a majority number of the Union members the right to strike.

³⁷⁰ This has been considered an important factor for restructuring and privatization in Germany, UK, Canada and Austria. In the US, this alone is considered a serious handicap, see Janie Lynn Treanor, "Privatization v. Corporatization of the Federal Aviation Administration: Revamping Air Traffic Control," (1998) 63 n.3, Journal of Air Law and Commerce, 633 at 644.

3.6 Extra Territorial Solutions

3.6.1 International Operating Agencies

The immense cost of establishing and running ANS accompanied by technical and operational factors requires the application of multi-state or regional solutions. They come in the form of international operating agencies, joint ventures or agreements to provide services and facilities. "An international operating agency is a separate entity assigned the task of providing air navigation services, principally route facilities and services, within a defined area on behalf of two or more sovereign States."³⁷¹ The international operating agency can be an adjacent State service, an international organisation or a foreign private entity, with various structures and forms.³⁷² This type of arrangement caters for economies of size reflecting in a stronger financial unit, with improved efficiency at a lower cost for the users. ICAO Council encourages this form,³⁷³ where this type of arrangement is, in particular, beneficial for the States with less advanced economy, expertise or technical means,³⁷⁴ and as an alternative to international aid.

3.6.2 Joint Ventures

A navigational aid transmitting signals to aircraft are not restricted by the boundaries of the State, which establishes the facility and they generally serve a wider area, despite the fact that the cost is normally levied on the users operating in the airspace within which the facility is located.³⁷⁵ The technical development in GNSS with the level of investments in the CNS/ATM system calls for different approach to maximize the usage, avoid duplication of services and minimise cost. Therefore, joint ventures, multinational

³⁷¹ See ICAO Doc 9161/3 *supra*, note 150, at 11

³⁷² *Ibid.* at 2. Examples of international operating agencies are ASECNA in Africa (which operates airports as well as air navigation services), COCESNA in Central America and EUROCONTROL in Europe.

³⁷³ See Doc 9082/5 *supra*, note 158, at 9.

³⁷⁴ A recent example is the co-operation between Austria the Czech Republic and Slovakia where ATC service over the upper airspace over the latter two countries is provided from a new Austrian ACC.

³⁷⁵ See Doc 9161/3 *supra*, note 150, at 13.

facilities co-operation agreements and services have been adopted, for example, in Europe where the EUROCONTROL, CFMU and EGNOS have been established.³⁷⁶

4. Part II Summary

The technical development in the extra terrestrial means of navigation is likely to have great impact on ANS providers. The GNSS and ATM/CNS functions are likely to make the core of the existing ground-based systems redundant, except at the receiving/transmitting site and in congested areas, around airports. Due to the satellite CNS possibilities, the ANS may be provided from any location on the globe, but at the moment this is still an expensive option. Private entities or regional organisations operating agencies or joint ventures will be able to provide services at any location world wide, within the short term. This can significantly reduce the financial obligation of navigation facilities as originated in Article 28 of the Chicago Convention. However, to be able to make full use of the economical benefits providers must “merge” or join forces. This is a valuable development for financially strained States, which may be able to leapfrog over some stages in the technical development. This development is likely cause a significant reduction of ACC’s and relevant cost saving’s if the States concerned are willing. The development will further reduce the need for the joint financing aid.

The ANS has been a service provided by governments, a rapidly changing trend. As mentioned above, safety and profit issues have been the main reasons for opposing privatization in this sector for the monopolistic environment and fear that the profit interests will succeed safety considerations. These are the same reasons used for opposing the privatization of the airlines in the past. The States that have transformed their ANS, maintain opposing arguments and some critics argue that State’s failing economy and limited financial resources are even more hazardous to safety than the potential privatization. The fact remains that the transformation trend continues.

³⁷⁶ See *e.g.* General guidelines on the establishment and provisions of a multi-national ICAO EUR-Air Navigation facility/service. Attachment B introduction to the ANP-EUR Region (Doc 7754, 24 ed. 1998) at 0-B-1; The Rio Report *supra*, note 269, Recommendation 2/5 at 2-4.

The almost uniform application of user charges to finance the services, like any other businesses, and the dramatic increase in air traffic in the past decades is a development that has changed the economic environment in the ANS business. This enables self-sustained operations. In low traffic density areas the economics require larger sectors, cross-border and even alien service providers, for economies of size, if the relevant States are not willing or able finance the services or facilities.

In the “joint financing” perspective, as it reflects in ICAO policy, it is evident that there are numerous possibilities in finance by other means, than an “aid” through the Joint Financing mechanism. This can be accomplished through private or public corporations or international operating agencies, joint ventures and agreements. All these possibilities should be thoroughly investigated before requesting international aid through Chapter XV of the Chicago Convention.

PART III. Is there a need for Joint Financing (in Iceland)?

The Joint Financing Agreement has been monumental in many aspects. The support and aid given to the Icelandic Government to provide necessary services, under its Article 28 obligation, was something like a collective rescue mission. Without this aid, there would have been serious deficiencies in services and facilities in the North Atlantic. The Agreement is an example of a good international co-operation in international civil aviation, which benefited all the Contracting governments, the providing Government and the users.

The economical situation today is, however, totally different from the one in 1956. The cost of the services is more or less born by the user charges. The Contracting States contribute less than 2 percent of the 95 percent of cost of providing the services, and after the last change in the Annexes to the Agreement this support will be diminishing (0.3 percent assessment estimate 1999 for the Icelandic Agreement).³⁷⁷ The small difference financed by the states might easily be collected directly from the users, thereby saving time and effort in the assessment process.

One of the principles of international aid, and any aid for that matter, is its temporary nature. The objective of the aid is to make the aided self-sufficient, to stand on its own without the aid. The Joint Financing is well beyond that. The charges can easily support the services without further contribution from the Contracting States, which is evident from the amount contributed by the States over the last few years.

There is, of course, an obligation to the users and the general public to run safe, efficient and economical services. This requires a constant revision of how the services

and the support systems are managed. It includes as well an obligation to cut the bureaucracy and to make efficient use of all resources.

ICAO administrative cost for the Danish and the Icelandic schemes has been only 1,4 percent of the total user charge, as an average for the last five years. This is not an unreasonable cost, but it is over 40 percent of the contribution from the Contracting Governments in 1998 to both the Joint Financing Agreements. In 1999, this cost exceeded the contribution of the Contracting Governments.³⁷⁸

Efforts have been made by the Council to achieve a greater participation in the Agreement, as there is a large number of States whose aircraft use the services, but do not contribute to it. However as emphasis has been on greater participation contributions from some of the State pay less than the postage for all the cumulative papers issued.³⁷⁹ This raises the question of why is the Joint Financing principles being applied today.

The situation called for a reaction from the Japanese Council member, since the estimated contribution by the Contracting States was down to 1.4 percent for both the agreements (0.3 percent for the Icelandic Agreement) in the year of 1999.³⁸⁰

³⁷⁷ This is due to the increase of the percentage of allocation of MET and MET/COM cost to international civil aviation from 60 percent to 90 percent beginning January 1, 1999, and the adding of interest and default cost to the user charge as mentioned above.

³⁷⁸ The contribution from the Contracting States was 786.287 US \$ but the administrative costs 323.474 US \$. See ICAO, *Council – 158th Session*, Doc C-WP/11226, 18/10/99, at 3. Note the administrative fee is only levied on the user charges. In 1999 the contribution from the States was US\$336.043, - but the administrative costs US\$351.000. See, Attachment 5 hereto.

³⁷⁹ Slovakia contributed 24 US dollars total to the Agreement from 1995 – 1998, See the Annual reports of the Council for those years. NOTE the assessments depend on the number of crossings by aircraft from each State. See also ICAO, *Council 158th –Session, Information on Crossings of the North Atlantic During the Calendar Year 1998*, Doc C-WP/11170, 17/7/99.

³⁸⁰ Mr. Okada the representative of Japan circulated a draft working paper on the issue and there were informal discussions on the matter outside of the meeting but it was not on the official agenda of the Joint Finance Committee or the Council's. The working paper is in Attachment No 3 hereto.

Table No. 3. Cost estimates for 1999 in US dollars.³⁸¹

	<i>Danish</i>		<i>Icelandic</i>		<i>Both</i>	
	<i>Agreement.</i>	<i>%</i>	<i>Agreement</i>	<i>%</i>	<i>Agreements</i>	<i>%</i>
Provider benefits	300.015,-	5,0	905.078,-	5,0	1.205.093,-	5,0
User charges	5.423.406,-	90.4	17.137.308,-	94.7	22.560.714,-	93.6
Assessments	276.879,-	4.6	59.164,-	0,3	336.043,-	1,4
Total	6.000.300,-	100	18.101.550,-	100	24.101.850,-	100
ICAO admin. cost					351.000,-	

Note:

Adjustments for the previous years are not included.

The billing fee (UK) is added to the user charges. It is not to exceed 5% and is not included in the table.

The ICAO administrative fees are added to the user charges.

The allocation of MET and MET/COM costs to aviation was increased from 60% to 90%, 1 January 1999.

The argument made by the Japanese Representative was that the circumstances surrounding the air navigation services had changed, increased number of service providers are charging for their services without any organizational funding mechanism. The cost of the funding mechanism of the Icelandic and Danish programs is larger than the total Contracting Governments' assessments and air navigation services in the North Atlantic could then be operated without the ICAO Joint Financing mechanism.³⁸² He, therefore, proposed the following:

It has to be reconsidered whether joint financing is still a necessary and effective mechanism considering the fact that virtually all of the costs are paid by airlines, and no longer by the contracting governments.³⁸³

³⁸¹ Based on cost estimates from the informal Japanese working paper *ibid.* (See also Doc C-WP/11007 and WP/11008)

³⁸² *Ibid.*

³⁸³ *Ibid.*

The issue has been raised despite the fact that it has not been processed as of yet through the formal channels.

The Joint Financing Agreement has served its purpose well. It enhanced and promoted international co-operation in the North Atlantic by financing services which otherwise would not have been available. It promoted the international air transport at a time when government intervention was a necessary support for the developing aviation industry.

The global change in economy policies, efficiency demands, requirements for cost to be borne by those who generate them, and the general notion not to discriminate between different modes of transportation have contributed to the general change in government policies to relay the aviation infrastructure cost on the users. The ANS are to be more or less self-supporting, privatized and possibly competing.

At the moment, the Joint Financing Agreement seems now more of a moral support from the Contracting Governments, with inherit program cost, which has outlived its usefulness.

Below are listed some arguments of general character for and against the continuation of the Agreement, listed in no particular order.

Reasons for continuing the Joint Financing:

- the agreement is benefiting all participants;
- the ICAO audit is benefiting the users and keeps the lid on cost;
- politics, to influence an important service in a strategic airspace;
- enables the charging for services from the 45 parallel;
- prestige and a good example of international co-operation;
- the only direct participation by ICAO in an operational environment;
- uncertainty as to the price of withdrawal *inter alia* due to recent large investments;
- lack of interest;
- a support to lean on when or if the going gets tough;
- not to stir the boat;
- question of collecting user charges;

Reasons for discontinue Joint Financing:

- the services are self sustainable and do not need international support;
- the program has outlived its usefulness only produces paper and costs;
- it is not longer a *prima face* case for joint support;
- it is outside of the ICAO A1-65 policy parameters;
- it is uneconomical, produces costs not proportional to the benefits;
- it hinders flexibility in decisions on capital expenditure and new services;
- it prevents structural changes at the provider side or prevents the selection of the most economical one;
- it consumes valuable time and resources of the Council
- cumbersome bureaucratic process

PART IV. Conclusions

Now more than fifty years from the signing of the Chicago Convention the technical development is progressing towards the phase where satellites and other airborne systems have minimised the technical problems of the conventional navigational systems. Established service providers will soon be able to provide ANS literally anywhere on the globe.

This leads us to the fundamental idea behind the Joint Financing, which is a State's inability to provide the necessary services and facilities by its own means. When there are no other means to directly finance the services by the State, the collective interest of States affected by this inability may be required through Joint Financing. However, it is only to be used as a last resort of finance when everything else fails according to ICAO policy. One obvious reason for this must be in the additional work for the Organisation, generated costs and the fundamental obligation undertaken by States in Article 28 of the Chicago Convention, which they must discharge of in good faith. Therefore, all possibilities must be extinguished before Joint Financing is seeded. As pointed out by ICAO in the Economic manual (Doc 9161/3), other means to provide services is to have various independent, government or non-government, regional or multi-state international bodies provide and finance the service. Some of the options would have been impossible as solutions 15-20 years ago due to technical barriers.

When a State requests aid or when it applies for Joint Financing through ICAO, all the other possible means in accomplishing the task must be considered before the support is granted, with primarily emphasis on encouraging the development of safe, efficient and orderly operations of international air transport. The primary issue here is the willingness of States to participate in exploring other means of action collectively.

Has the Joint Financing Agreement been a success? Definitely. The program has ensured the availability of the service and facilities in accordance with the Standards and

recommended practices of the Annexes to the Chicago Conventions. As of today, it has been a fairly efficient and reliable service. This does not, however, mean that no attempt should be made to reduce costs, to minimise duplication of work and to maximize the use of limited resources where it is possible. When ANS and related facilities are or can be fully financed with user charges, it may be one of the available methods of financing. One could say that the need for Joint Financing evaporates because other resources are available and should be used as a means of direct finance, in accordance with ICAO policy. The question remains whether the Joint Financing is still necessary and beneficial to the users and the provider at the additional administrative cost and co-ordination process, since the users charge encompasses the costs incurred by the ICAO Secretariat in administration of the Agreements. This is a question of economics and the will of States-parties to the Joint Financing Agreement.

What about the situation in the North Atlantic? Does it still require a Joint Financing or collective action to provide the Article 28 services? The situation today is that user fees are, in fact, financing the service, not the States-parties to the Agreement. Such an aid is therefore not needed. Just like in other industries, the airlines are capable of finance the cost of the service.

The execution of the Joint Financing program in the North Atlantic can be complemented for many reasons. As to the parties to the Agreement, there is not a shadow of a doubt that ICAO has performed its duties and obligations according to the Agreement with high standard of professionalism, and that all the parties have executed the Agreement in good faith. However, the program is at the same stage as a well-performed aid where it has proved it self unnecessary.

Recommendations

The Contracting Governments of the Icelandic Joint Financing Agreement should reconsider the Agreement in order to either greatly simplify its financial and administrative provisions or terminate the Agreement altogether, since the *aid* is of no relevance and, indeed, is not needed at present.

That ICAO should amend its A1-65 policy on Joint Support.

1. This should be done either to reflect the Organizations willingness to participate in programs of general nature, where it is primarily making available use of its administrative skills (as in the Height Monitoring Program), or the Organization adheres to using the Joint Financing as a program for aid (support).

Therefore, Article 3.4 of Annex 1 to Resolution A1-65 of the policy should be reconsidered (provision on exhaustion of other financial possibilities) or adhered to.

2. ICAO should consider if it should add any policy provisions on timeframes or conditions for termination of aid within the Joint Financing program.

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AGREEMENT

on the Joint Financing of Certain Air Navigation Services In Iceland (1956) as amended by the Montreal Protocol of 1982

Article I

For the purposes of this Agreement:

- a) "Organization" means the International Civil Aviation Organization;
- b) "Council" means the Council of the Organization;
- c) "Secretary General" means the Secretary General of the Organization;
- d) "Services" means the services specified in Annex I to this Agreement and any additional services which may from time to time be provided pursuant to this Agreement.

Article II

The Government of Iceland shall provide, operate and maintain the Services and, in consideration of special benefits derived from the Services, shall bear five per cent of the approved actual costs thereof.

Article III

1. The Government of Iceland shall operate and maintain the Services without interruption, in an efficient manner and with the greatest degree of economy consistent therewith and, so far as practicable, in accordance with the applicable Standards, Recommended Practices, Procedures and Specifications of the Organization.
2. Subject to the provisions of Annex I to this Agreement, the manner of taking meteorological observations and of making and disseminating meteorological reports shall be in accordance with the appropriate procedures and specifications promulgated by the World Meteorological Organization.
3. The Government of Iceland shall notify the Secretary General immediately of any emergency necessitating any temporary change or curtailment of the Services and that Government and the Secretary General shall thereupon consult on the measures to be taken to minimize any adverse effect of such change or curtailment.

Article IV

1. The Secretary General shall generally supervise the operation of the Services and may at any time arrange for the inspection of the Services, including any equipment used in connection therewith.

2. The Government of Iceland shall, at the request of the Secretary General, and to the extent practicable, furnish such reports on the operation of the Services as the Secretary General considers desirable.

3. The Secretary General shall, at the request of the Government of Iceland, provide, to the extent practicable, such advice as that Government may reasonably require in regard to the discharge of its obligations under this Agreement.

4. In the event of any failure by the Government of Iceland efficiently to operate and maintain any of the Services, there shall be consultation between that Government and the Secretary General for the purpose of agreeing upon remedial measures.

Article V

The total costs of the Services computed in accordance with Annexes II and III to this Agreement shall not, for any one calendar year, exceed 4 321 166 United States dollars. This limit may be increased by the Council either with the consent of all the Contracting Governments or as a result of the application of the provisions of Article VI.

Article VI

1. For the purpose only of establishing, operating and maintaining services which have not otherwise been provided for pursuant to this Agreement, the limit determined pursuant to the provisions of Article V may be increased by a stated amount with the consent of Contracting Governments responsible in the aggregate for not less than ninety per cent of the total assessments made under the provisions of paragraphs 3, 4, 5 and 6 of Article VII in respect of the last calendar year for which assessments have been made.

2. Subject to the provisions of Article II, any expenditure attributable to the services referred to in paragraph I of this Article, or any expenditure made possible under the provisions of paragraph 2 a) of Article XIII as a result of the inclusion of the said services within this Agreement, shall be borne solely by the Contracting Governments so consenting, in shares having the same relative proportion to each other as the shares of those Governments in the total assessments for the relevant year, and no part of the Reserve Fund referred to in Article X not attributable to those services shall be used for purposes to which those Governments alone have consented.

Article VII

1. Subject to the provisions of Article V and paragraph 2 of Article VI, the Contracting Governments agree to share ninety-five per cent of the approved actual costs of the Services, as determined pursuant to the provisions of Article VIII, in proportion to the aeronautical benefit derived therefrom by each Contracting Government. Such proportion shall be determined for each Contracting Government in respect of each calendar year by the number of crossings between Europe and North America any portion of which lies north of the 45th parallel North between the meridians of 15° West and 50° West performed in that year by its civil aircraft. In addition,

- a) a crossing between only Greenland and Canada, Greenland and the United States of America, Greenland and Iceland or Iceland and Europe shall be counted as one-third of a crossing;
- b) a crossing between only Greenland and Europe, Iceland and Canada or Iceland and the United States of America shall be counted as two-thirds of a crossing; and
- c) a crossing to or from Europe or Iceland which does not cross the coast of North America but crosses the meridian of 30° West north of the 45th parallel North shall be counted as one-third of a crossing.

2. For the purposes of paragraph 1 of this Article:
 - a) a crossing shall be counted even if the point of take-off or landing is not in the territories mentioned in that paragraph; and
 - b) "Europe" does not include Iceland or the Azores.
3. On or before 20 November each year, the Council shall assess the Contracting Governments for the purpose of providing advances for the following year. For the year 1983 the assessments shall be on the basis of the number of crossings in 1981 and ninety-five per cent of the estimated costs for 1983. The assessment of each Contracting Government shall be adjusted to take into account any difference between the amounts paid by it to the Organization as advances in respect of 1981 and its share, as determined by its crossings in 1981, of ninety-five per cent of the approved actual costs in 1981. The adjusted assessment of each Contracting Government shall be reduced by its share, as determined by its crossings in 1981, of the estimated revenues from user charges to be remitted under Article XIV to Iceland in 1983.
4. The procedure set forth in paragraph 3 of this Article shall apply to the assessments for the year 1984 with appropriate changes of year.
5. For 1985 the procedure in paragraph 3 of this Article shall apply, with appropriate changes of year, and, in addition, the assessment of each Contracting Government shall be further adjusted to take into account any difference between its share of the estimated revenues from user charges for 1983 and its share, as determined by its crossings in 1983, of the audited actual user charge revenues remitted to Iceland in 1983.
6. The procedure for 1985 shall apply in subsequent years with appropriate changes of year.
7. On 1 January and 1 July of each calendar year starting on 1 January 1983, each Contracting Government shall pay to the Organization, in half-yearly instalments, the amount assessed to it in respect of advances for the current calendar year, adjusted and reduced as provided in paragraphs 3, 4, 5 and 6 of this Article.
8. In the event of termination of this Agreement, the Council shall undertake adjustments so as to accomplish the objectives of this Article in respect of any period for which, at the date of termination of the Agreement, payments have not been adjusted pursuant to paragraphs 3, 4, 5 and 6 of this Article.
9. On or before 1 May of each year, each Contracting Government shall furnish to the Secretary General, in such form as the Secretary General may prescribe, full particulars of the crossings to which this Article applies performed during the preceding calendar year.
10. The Contracting Governments may agree that the particulars referred to in paragraph 9 of this Article will be furnished to the Secretary General on their behalf by another Government.

Article VIII

1. The Government of Iceland shall furnish to the Secretary General, on or before 15 September of each year, estimates, expressed in United States dollars, of the costs of the Services for the following calendar year. The estimates shall be drawn up in accordance with Article III and with Annexes II and III to this Agreement.
2. The Government of Iceland shall furnish to the Secretary General, not later than six months after the end of each calendar year, a statement of the actual costs of the Services during that year. The Secretary General shall subject the statement to such audit and other examination as he deems appropriate and shall furnish to the Government of Iceland a report of the audit.

3. The Government of Iceland shall furnish to the Secretary General such additional information relating to any estimates of costs or statement of actual costs as the Secretary General may require, as well as any available information as to the extent to which the Services are being used by aircraft of any nationality.

4. The statements of actual costs for each year shall be subject to approval by the Council.

5. The statement of actual costs approved by the Council pursuant to the provisions of paragraph 4 of this Article shall be circulated to the Contracting Governments.

Article IX

1. The Government of Iceland shall be reimbursed for ninety-five per cent of the actual costs, as approved by the Council, of providing, operating and maintaining the Services.

2. The Council shall, after having satisfied itself that the estimates submitted by the Government of Iceland in accordance with paragraph 1 of Article VIII have been drawn up in accordance with Article III and with Annexes II and III to this Agreement, authorize the Secretary General to make payments to that Government in respect of each quarter, not later than the first day of the second month of that quarter. The payments shall be based on the estimates referred to and shall constitute advances, subject to adjustment as provided under paragraph 3 of this Article. The total amount of such payments shall not exceed, in respect of any one year, the limit determined pursuant to the provisions of Article V. With effect from 1 January 1983, the Government of Iceland shall treat all net revenues from user charges, collected from all civil aircraft operators under a system operated pursuant to Article XIV, as part of the advances for the year in which those revenues are received.

3. After the approval by the Council of the statement of actual costs, the Secretary General shall make adjustments in any subsequent quarterly payments to the Government of Iceland to take account of any differences between the payments made under paragraph 2 of this Article in respect of any year and the approved actual costs for that year.

4. Contracting Governments not represented on the Council shall be invited to participate in the consideration by the Council or any of its bodies of the estimates furnished by the Government of Iceland pursuant to the provisions of paragraph 1 of Article VIII.

5. The estimates of costs, as approved by the Council, pursuant to the provisions of paragraph 2 of this Article, shall be circulated to the Contracting Governments.

Article X

1. The payments received by the Organization from the Contracting Governments pursuant to the provisions of Article VII shall, to the extent that they are not from time to time needed for making current payments to the Government of Iceland pursuant to this Agreement, constitute a Reserve Fund to be used by the Organization for the purposes of this Agreement.

2. The Secretary General may arrange for short-term investment of the Reserve Fund. The Organization shall apply the interest derived therefrom to cover the extraordinary expenses of the Organization incidental to this Agreement. If such interest is insufficient to cover such expenses, the difference remaining shall be considered as an additional part of the actual costs of the Services and shall be reimbursed to the Organization from payments made by the Contracting Governments.

Article XI

1. The annual assessments of Contracting Governments shall be expressed in United States dollars.
2. Each of the Contracting Governments shall make payments to the Organization pursuant to the provisions of Article VII in United States dollars or in sterling or, provided that the Government of Iceland consents thereto, in Icelandic kronur. The procedure for determining the rate of exchange applicable to a payment made in sterling or Icelandic kronur shall be determined by the Council in consultation with the Governments concerned.
3. The Secretary General shall, subject to the Organization being reimbursed in United States dollars for its extraordinary expenses, make payments to the Government of Iceland pursuant to the provisions of Articles IX and XII in the currencies in which Contracting Governments have made their payments to the Organization and which remain available.

Article XII

1. The obligation of the Secretary General to make payments to the Government of Iceland under this Agreement shall be limited to amounts actually received by the Organization and available in accordance with the terms of this Agreement.
2. The Secretary General may, nevertheless, pending receipt of payments from Contracting Governments and in accordance with the Financial Regulations of the Organization, advance payments which are due to the Government of Iceland in cases where he considers such advances essential for the inauguration or uninterrupted continuance of the Services.
3. No Contracting Government shall have a claim against the Organization because of failure of any other Contracting Government to make any payment under this Agreement.

Article XIII

1. The Council may, subject to the provisions of Article V and paragraph 2 of Article VI and in agreement with the Government of Iceland, include under this Agreement new capital expenditure necessary for the proper operation of the Services.
2. The Council may, subject to the provisions of Articles V and VI and in agreement with the Government of Iceland, include under this Agreement services in addition -to those set out in Annex I hereto and new capital expenditure in respect of such services, provided that any one of the following conditions is fulfilled:
 - a) the total amount of such expenditure in any one year does not exceed 3.5 per cent of the cost limit approved under Article V; or
 - b) such services are those to which all Contracting Governments have consented; or
 - c) such services are those to which Contracting Governments responsible in the aggregate for not less than ninety per cent of the total assessments made under the provisions of paragraphs 3, 4, 5 and 6 of Article VII have consented and in respect of which the provisions of Article VI have been applied.
3. For the purposes of paragraphs 1 and 2 of this Article, renewal of buildings and equipment from payments received on account of depreciation shall not be regarded as new capital expenditure.

4. If new capital expenditure or additional services are proposed by the Government of Iceland or by the Council, that Government shall furnish to the Secretary General an estimate of the costs thereof, together with such specifications, plans and other information as may be required in regard thereto, and shall consult with the Secretary General concerning the methods of supply, design or construction to be adopted.

5. The Council may, in agreement with the Government of Iceland, exclude from this Agreement any part of the Services.

6. When action has been taken pursuant to paragraphs 1, 2 or 5 of this Article, the Council shall amend the Annexes to this Agreement accordingly.

Article XIV

The Government of Iceland shall operate a system of user charges for the Services provided for all civil aircraft making crossings as defined in Article VII. These charges shall be calculated in accordance with Annex III to this Agreement. The net revenues from these charges shall be offset against payments due to the Government of Iceland pursuant to the provisions of this Agreement Except with the consent of the Council, the Government of Iceland shall not impose any additional charges for the Services on other than its own nationals.

Article XV

The Government of Iceland shall not make any international arrangement for the provision, operation, maintenance, development or financing of any or all of the Services without the approval of the Council.

Article XVI

The Government of Iceland shall, to the fullest possible extent, co-operate with the representatives of the Organization in respect of the purposes of this Agreement and shall accord to such representatives the privileges and immunities to which they are entitled under the General Convention on the Privileges and Immunities of the Specialized Agencies, including Annex III (2) thereto.

Article XVII

The Council shall convene a conference of all the Governments concerned:

- a) when requested by two or more of the Contracting Governments or by the Government of Iceland, or by any one of the Contracting Governments if such a conference has not been held during the previous five years;
- b) when failure of any Contracting Government to make payments under this Agreement necessitates a revision of the assessments which cannot otherwise be satisfactorily settled; or
- c) When, for any other reason, the Council considers such a conference necessary.

Article XVIII

Any dispute relating to the interpretation or application of this Agreement or the Annexes thereto which is not settled by negotiation shall, upon the request of any Contracting Government party to the dispute, be referred to the Council for its recommendation.

Article XIX

1. This Agreement shall remain open until 1 December 1956 for signature by the Governments named in the Preamble.
2. This Agreement shall be subject to acceptance by the signatory Governments. Instruments of acceptance shall be deposited as soon as possible with the Secretary General, who shall inform all signatory and acceding Governments of the date of deposit of each such instrument.

Article XX

1. This Agreement shall be open for accession by the Government of any State member of the United Nations or of a Specialized Agency in relationship therewith. Accessions shall be effected by the deposit of a formal instrument with the Secretary General.
2. The Council may initiate consultations with any Government, not a party to this Agreement, whose civil aircraft benefit from the Services, for the purpose of obtaining its accession to the Agreement.
3. Notwithstanding the provisions of paragraph 2 of this Article, the Council may conclude arrangements for contributions from any Government which does not become a party to this Agreement. Any such contributions received shall be applied to the purposes of this Agreement as determined by the Council.

Article XXI

1. This Agreement shall come into force not earlier than 1 January 1957, when instruments of acceptance or of accession have been deposited by Governments responsible in the aggregate for initial assessments of not less than ninety per cent of the initial maximum cost figure laid down in Article V. As regards those Governments, deposit of an instrument of acceptance or of accession shall be deemed to constitute consent to the system of assessments, payments and adjustments under this Agreement for the period between 1 January 1957 and the entry into force of this Agreement.
2. As regards any Government whose instrument of acceptance or of accession is deposited at the entry into force of this Agreement, the Agreement shall come into force on the date of such deposit. Each such Government shall consent to the system of assessments, payments and adjustments under this Agreement with effect at least from the beginning of the calendar year during which the instrument of acceptance or of accession is deposited. Each such Government may elect to be assessed for its appropriate share of the actual approved costs of any Services in respect of which the provisions of Article VI have been applied and as to which, at the date of accession of such Government, the consents of all Contracting Governments have not been given.

Article XXII

1. a) This Agreement may be terminated by the Government of Iceland on 31 December in any year by notice in writing given to the Secretary General not later than 1 January of that year.
- b) If at any time it proves impossible for the Government of Iceland to perform the Services within the limit determined pursuant to the provisions of Article V, that Government shall immediately notify the Secretary General in writing of such fact and shall furnish to the Secretary General a detailed estimate of the additional amount required. The Secretary General shall promptly examine such estimate and, after any necessary consultation with that Government, determine the amount needed in excess of the aforesaid limit. The Secretary

General shall then approach the Contracting Governments, with a view to obtaining their consent as required pursuant to the provisions of Article V. Unless, within three months after the Secretary General has determined the additional amount required, he notifies the Government of Iceland that the Contracting Governments have given their consent, the Government of Iceland may thereafter terminate this Agreement on three months' notice in writing given to the Secretary General.

- c) This Agreement may be terminated on 31 December in any year by Contracting Governments other than the Government of Iceland responsible for current assessments in the aggregate of not less than ten per cent of the limit determined pursuant to the provisions of Article V by notice in writing given to the Secretary General not later than 1 January of that year-

2. Upon receipt of a notice or notices of desire to terminate this Agreement in accordance with paragraph 1 of this Article, the Secretary General shall notify the Contracting Governments.

Article XXIII

1. Notwithstanding the provisions of Article XXII, any Contracting Government other than the Government of Iceland, whose current assessment is less than ten per cent of the limit determined pursuant to the provisions of Article V, may withdraw from participation in this Agreement on 31 December in any year by notice in writing given to the Secretary General not later than 1 January of that year of its intention to terminate its participation. Any such notice shall, for the purpose of paragraph 1 c) of Article XXII, be deemed also to constitute a notice of desire to terminate this Agreement.

2. Following receipt of notice of withdrawal from any Contracting Government, the Secretary General shall notify the other Contracting Governments.

Article XXIV

1. In the event of termination of this Agreement by the Government of Iceland pursuant to the provisions of paragraph 1 of Article XXII, that Government shall pay to the Organization, or the Organization may offset against payments due to that Government hereunder, a sum representing equitable compensation for benefits to it from its acquisition, for its own purposes, of moveable or immovable property, the cost of which has been partially or wholly reimbursed to that Government under the provisions of this Agreement.

2. In the event of any termination of this Agreement by Contracting Governments other the Government of Iceland, the Government of Iceland shall be paid out of the Reserve Fund or, if the Fund is insufficient, by all the Contracting Governments through the Organization, an equitable amount by way of compensation for capital expenditures undertaken by that Government and not wholly reimbursed pursuant to this Agreement. Any payments required from Contracting Governments for this purpose shall be computed on the basis of the most recent assessment figures and shall be due as of the time of termination. The Organization shall have the right to take over any moveable property for which compensation is paid pursuant to this paragraph. Any waiver of such right shall be taken into account in determining the compensation.

3. The provisions of paragraph 2 of this Article shall apply correspondingly in respect of any part of the Services which may be excluded from the Agreement pursuant to the provisions of paragraph 5 of Article XIII.

4. The amount of any payments under this Article shall be determined by agreement between the Council and the Government of Iceland.

Article XXV

1. Subject to the provisions of paragraph 2 of Article X, any balance of the Reserve Fund and of interest thereon held by the Organization on the date when this Agreement ceases to be in force shall be apportioned among and refunded to those Governments which were still parties to this Agreement immediately before that date on the basis of their most recent annual assessments.
2. a) Any Government which has withdrawn from participation in this Agreement in accordance with the provisions of Article XXIII shall pay to or receive from the Organization any difference between the amount it has paid to the Organization in accordance with Article VII and its appropriate share of the approved actual costs in respect of the period of its participation.

b) Any Government which has so withdrawn shall pay to the Organization its share of capital expenditures which have been undertaken by the Government of Iceland and which have not been wholly reimbursed pursuant to this Agreement. The amount payable shall be computed on the basis of the most recent assessment figure in respect of the Government which has withdrawn. Payment shall be due as of the time of withdrawal.

Article XXVI

1. Any proposal for an amendment of this Agreement may be initiated by a Contracting Government or by the Council. The proposal shall be communicated in writing to the Secretary General who shall circulate it to all Contracting Governments with the request that they advise him formally whether or not they agree to it.
2. Adoption of an amendment shall require the agreement of two-thirds of all Contracting Governments responsible in the aggregate for not less than ninety per cent of current assessments.
3. An amendment so adopted shall enter into force for all Contracting Governments on 1 January of the year following the year in which formal written acceptances of the -amendment have been received by the Secretary General from Contracting Governments responsible in the aggregate for not less than ninety-eight per cent of the current assessments.
4. The Secretary General shall send certified copies of each amendment as adopted to all Contracting Governments and shall notify them of any acceptances and of the date of entry into force of any amendment.
5. The Council may, in cases additional to those specified in paragraph 6 of Article XIII, amend the Annexes to this Agreement, subject always to the terms and conditions of the Agreement and the consent of the Government of Iceland.

Attachment 2. Index to the Joint Financing Agreement

Agreement on the Joint Financing of Certain Air Navigation Services in Iceland

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JOINT FINANCE

**Draft Discussion Paper
(Presented by Japan)**

1. Background

Joint financing arrangements provide the funds for Iceland and Denmark to operate air navigation services in the Northern Atlantic in accordance with the Chicago Convention. Under both agreements, 95% of the audited actual costs are jointly financed by the 23 participating States and aeronautical users in proportion to aeronautical benefits derived on the basis of civil aircraft crossing over the northern route of the North Atlantic. However dramatic changes have been made on the allocation of the costs to date. Currently the user charges revenue accounts for 93.6% while 1.4% of the costs involved are financed by assessments on the participating States and the rest of 5% are borne by Iceland and Denmark.

2. Cost structure for 1999

The 1999 cost estimates submitted by Iceland and Denmark and the 1999 ICAO administrative costs are as per attached sheet.

3. Points of discussion

3.1 Although efforts have been made so far by the President to obtain greater participation in the Joint Financing Agreements by the States which are not parties to the Agreements but whose aircraft fly over the northern route of the North Atlantic, no new party has joined the Agreements since Slovakia joined the Agreements in 1995. The total number of crossings has increased about 1.5 times during the ten years from 1989 to 1998 and in 1998 there were 21 non- participating States with more than 100 crossings per year. (C-WP/11170)

3.2 The percentage of allocation of MET and MET/COM costs to international civil aviation was increased from 60 % to 90 % from 1 January 1999 and this has consequently reduced the assessment for participating States substantially. In the 1999 cost estimate the Contracting governments' share of the total cost is only 4.6% in the Denmark Agreement and 0.3% in the Iceland Agreement. Regarding the ICAO Administration Cost (US\$ 351,000), which is paid by users in addition to the user charge, is larger than the total contracting governments' assessment (US\$ 336,043). In other words, from a

financial viewpoint the air navigation services in the Northern Atlantic could be operated without the ICAO Joint Financing mechanism.

3.3 When the original arrangements were concluded in 1948 and 1949, cost recovery of air navigation service provision to aircraft flying over FIRs was not established, but circumstances surrounding the air navigation services have changed since then and at the present time an increasing number of service providers charge aeronautical users overflight fees in many FIRs in the world without any organizational funding mechanism.

4. Proposed action by the Committee

It has to be reconsidered whether joint financing is still a necessary and effective mechanism considering the fact that virtually all of the allocable costs are paid by the airlines, and no longer by the contracting governments.

COST STRUCTURE OF JOINT FINANCE

1999 cost estimate of Denmark Joint Financing (D.Kr)
(C- WP/1 1007) D.Kr 6.5979 = US\$ 1.00

Denmark government	1,979,469	(5.0 %)	300,015
User charge	35,783,091	(90.4%)	5,423,406
Contracting governments	1,826,821	(4.6%)	276,879 ... (a)
Total	D.Kr 39,1589,381	(100.0%)	US\$ 6,000,300

1999 cost estimate of Iceland Joint Financing (US\$) (C- WP/1 1008)

Iceland government	905,078	(5.0%)	
User charge	17,137,308	(94.70/o)	
Contracting governments	59, 164	(0.3%) ... (b)	
Total	US\$ 18,1013,550	(100.0/o)	

1999 total cost estimate (US\$)		
Iceland and Denmark govern.	1,205,093	(5.0%)
User charge	22,560,714	(93.60/o)
Contracting governments	336,043	(1.4%) ... (a) + (b)
Total	US\$ 24,101,850	(100.0%)

1999 ICAO Administration Cost (US\$) (C- WP/1 1009) 351,000

(a) + (b) 336,043 < 351,000

Note:

- 1) The previous years' adjustments are not included.
- 2) User charges are billed to commercial or private aircraft flying in the service area, by the United Kingdom on behalf of Denmark and Iceland. In the billing and collecting of the user charges the United Kingdom is entitled to add a fee, not exceeding 5 %, to the user charge.
- 3) The percentage of allocation of MET and MET/COM costs to international civil aviation was increased from 30 % to 60 % from 1 January 1998 and, with effect from 1 January 1999, was increased from 60 % to 90%.
- 4) ICAO administrative fee for the both Joint financing arrangements is added to the user charge.

Attachment 4. The current and amended method of calculation of user charges

C-WP/11354

CURRENT METHOD OF CALCULATION

AMENDED METHOD OF CALCULATION

<i>No.</i>	<i>Item</i>	<i>Amount</i>	<i>References</i>	<i>No.</i>	<i>Item</i>	<i>Amount</i>	<i>References</i>
(1)	Total cost allocable to civil aviation (2 years before)		JS-WP/ , P.	(1)	Total cost allocable to civil aviation (2 years before)		JS-WP/ , P.
(2)	95 percent chargeable to JF		Article IX	(2)	95 percent chargeable to JF		Article IX
(3)	(Over) Under-recovery (4 years before)		C-WP/ , P.	(3)	(Over) Under-recovery (4 years before)		C-WP/ , P.
(4)	Subject to collection (2 years before)		(2) + (3)	(4)	Subject to collection (2 years before)		(2) + (3)
(5)	User charge (2 years before) in £ sterling		as provided by U.K.	(5)	Collected from users (2 years before)		
(6)	Crossings north of 45°N (2 years before)		C-WP/	(6)	(Over) Under-recovery (2 years before)		(4) - (5)
(7)	Average exchange rate of £ sterling						
(8)	Billed to users (2 years before)		(5) x (6) x (7)				
(9)	(Over) Under-recovery (2 years before)		(4) - (8)				
(10)	Total estimated cost allocable to civil aviation (current year)		JS-WP/ p	(7)	Total estimated cost allocable to civil aviation (current year)		
(11)	95% chargeable to JF		Article IX	(8)	95 percent chargeable to JF		Article IX
(12)	Subject to collection (current year)		(11) + (9)	(9)	Subject to collection (current year)		(8) + (6)
(13)	User charge (current year)		(12)/(6)	(10)	Forecast of crossings (current year)		NAT SPG
				(11)	User charge (current year)		(9)/(10)

Attachment 5. Calculation of ICAO Administrative fee for the Year 2000.

C-WP/11226

1. Pursuant to Section IV of Annex III to the Danish and Icelandic Joint Financing Agreements, on or before 20 November 1999, the Council is required to determine the ICAO administrative fee for the jointly financed services for the year 2000 to be added to the combined Danish and Icelandic user charge per single aircraft crossing. Therefore, the Committee at its 1st Meeting of the 158th Session considered the level of this administrative fee to recover costs incurred by the Organization for facilities and services provided for the administration of the Danish and Icelandic Joint Financing Agreements.

2. Table 1 below presents actual administrative costs for 1998 compared with the estimated administrative costs for 1998 as well as the estimated administrative costs for the year 2000. Table 2 below presents detailed calculations of the ICAO administrative fee for the year 2000 based on the Programme Budget of the Organization and other expenses incidental to the administration of the Joint Financing Agreements. This fee amounting to US\$1.12, is 5.1 % lower than that for 1999 (US\$1.18), and it is to be added to the combined Danish and Icelandic user charge per crossing (C-WP/11224 and C-WP/11225) respectively. The development of the administrative fee since its inception in 1993 is shown in Table 3 below.

Table 1
ADMINISTRATIVE COSTS (US Dollars)

	<i>Actual costs 1998</i>	<i>Estimated costs 1998</i>	<i>Estimated costs 1999</i>	<i>Estimated costs 2000</i>
Staff costs	276396	288000	275000	261000
Operational expenses:				
Audit costs	43089	55000	55000	50000
Mission costs	22858	30000	32500	32500
Other expenses	751	500	500	500
Less: interest income	19620	-	12000	12000
Total	323474	373500	351000	3320001

Table 2**CALCULATION OF ICAO ADMINISTRATIVE FEE FOR THE YEAR 2000**

<i>No.</i>	<i>Item</i>	<i>US\$</i>	<i>References</i>
(1)	Administrative costs for 1998	323 474	C-WP/I 1 134
(2)	Collected from users in 1998	334 123	C-WP/I 1 134
(3)	Over-recovery in 1998	-10 649	(1) - (2)
(4)	Estimated administrative costs for the year 2000	332 000	Table 1
(5)	Subject to collection in the year 2000	321 351	(3) + (4)
(6)	Crossings north of 45°N in 1998:	287 943	C-WP/I 1 170
(7)	Administrative fee, 2000, per single aircraft crossing	1.12	(5) - (6)

Table 3
ADMINISTRATIVE FEE PER CROSSING

<i>Year</i>	<i>Administrative Fee (US\$)</i>	<i>Variance with Previous Year</i>
1993	1.56	
1994	1.44	-7.7%
1995	1.49	3.5%
1996	1.44	-3.4%
1997	1.16	-19.4%
1998	1.18	1.7%
1999	1.18	0.0%
2000	1.12	-5.1%

C-WP/11223
18/10/99

INTERNATIONAL CIVIL AVIATION ORGANIZATION

COUNCIL - 158TH SESSION

**946TH REPORT TO COUNCIL BY THE CHAIRMAN OF THE
COMMITTEE ON JOINT SUPPORT OF AIR NAVIGATION SERVICES
arising from its 1st Meeting, held on 13 October 1999**

Subject No. 17.1: Joint Financing Agreement with Iceland

REVIEW OF THE ICELANDIC ESTIMATES FOR THE YEAR 2000

SUMMARY

This paper summarizes the review of estimated costs for the year 2000 as furnished by the Government of Iceland pursuant to Article VIII(1) of the Agreement on Joint Financing of Certain Air Navigation Services in Iceland (Doc 9586-JS/682). Detailed information can be found in the Icelandic Estimates for the Year 2000 (JS-WP/1739).

REFERENCES

Doc 9586-JS/682 and Annexes I, II and III (15th Edition)
JS-WPs/1735, 1739 and 1741
C-WPs/10680, 11002 and 11006
(5 pages)

Estimates for the Year 2000

1. In accordance with Article VIII, paragraph 1 of the Agreement, the Government of Iceland has furnished cost estimates for the year 2000 amounting to a total of US\$18 992 277. Pursuant to Article IX, paragraph 2 of the Agreement, the Council shall, after

having decided that it is satisfied that the estimates have been drawn up in accordance with the Agreement, authorize the Secretary General to pay advances to Iceland.* (References JS-WP/1739, p.4)

2. The Committee considered the year 2000 cost estimates provided by Iceland presented in JS-WP/1739 and noted the comparisons between the year 2000 cost estimates and those for 1999 and the actual costs for 1998 in Table 1. It noted that the estimated costs for the year 2000 were 4.9 percent higher than those for 1999 and 12.3 percent higher than the actual costs for 1998. The variance between the estimated costs for the year 2000 and the estimated costs for 1999 is mainly due to an increase in the contributions to the pension fund as per Icelandic law and an increase in training costs due to the need for more controllers in the Reykjavik ACC as well as a backlog of proficiency training stemming from the years 1995 until late 1997 at which time industrial disputes almost stopped proficiency training. The variance between the estimated costs for the year 2000 and the actual costs for 1998 is mainly due to depreciation and interest on the OAC baseline flight data processing system (FDPS) added to the inventories of fixed assets in 1998. (References JS-WP/1737, p. 2 and JS-WP/1735, pp. 17, 20-21).

3. The Committee also noted that Iceland has used an exchange rate of US\$1.00=1. Kr. 75.50 in preparing the estimates for the year 2000. The rate was set at US\$ 1.00 = 1. Kr. 72.50 for the 1999 estimates, a favorable variance of 4.1%. (References JS-WP/1739, p. 15).

4. The Committee noted that the estimates for the year 2000 have been drawn up in accordance with the Agreement, in terms of the regular personnel charged (Section I of Annex III), the categories of costs charged (Section II, Parts A, B and C of Annex III) and indirect expenses on capital expenditures on inventories (in Annex II).

Article V Cost Limit

5. The Committee noted that the year 2000 cost estimates submitted by the Government of Iceland amounting to US\$18 992 277 are US\$7 723 below the present cost limit (US\$19 000 000) under Article V of the Agreement. (References Doc 9586 JS-WP/1739, p. 15).

* In accordance with Articles VII and XIV of the Agreement, assessments on Contracting Governments and a single user charge per crossing shall be based on the estimates. Advances, user charge and assessments are presented for approval in C-WP/I 1225.

TABLE 1
COST COMPARISONS
(US DOLLARS)

SERVICE	ESTIMATE 2000 (JS-WP/1739)	ESTIMATE 1999 (C-WP/11006)	DIFFERENCE ESTIMATE 2000 VS ESTIMATE 1999	%	ACTUAL COST 1998 (JS-WP/1735)	ESTIMATE 2000 VS ACTUAL COSTS 1998	%
COM Gufunes 1)	3280872	3421242	-140370	-4.1	3132172	148700	4.7
COM Rjupnahaed	476801	532767	-55966	-10.5	381017	95784	25.1
MET Keflavik	833199	763995	69204	9.1	771694	61505	8.0
MET Reykjavik 1)	813002	800973	12029	1.5	805100	7902	1.0
Air Traffic Control 1)	12430582	11332876	1097706	9.7	10631669	1798913	16.9
Satellite circuits and cable rentals	1157821	1249697	-91876	-7.4	1188379	-30558	-2.6
TOTAL	18 992 277	18 101 550	890 727	4.9	16 910 031	2 082 246	12.3

1) Excluding satellite circuits and cable rentals

New Capital Expenditures

6. The Committee noted the following estimated new capital expenditures proposed by the Government of Iceland for Council approval to incorporate in Annex II: (Reference JS-WP/1739, pp. 14 & 17)

Estimated Cost (US dollars)

	Total	Renewal	New Capital
COM Gufunes			
Changes to the Garex/Navia ICCS	28000	28000	0
MET Keflavik			
Renewal of a vehicle	20000	0	20000
ATC			
Spare parts for the Integrated Communications Control System	451000	451000	0
Additional hardware for the Radar Data Processing System	40000	0	40000
Total	539000	479000	60000

Integrated Communications Control System (ICCS)

7. The operation of the new Integrated Communications Control System (ICCS) began successfully in 1996. In order to ensure the continued operational reliability and integrity of the ICCS system for at least the next seven years, ICAA recommends that the necessary spare parts be obtained in the near future, due to uncertainty concerning the possibility of supply.

8. The Committee has noted the information provided by the Icelandic authorities in their estimates for the year 2000 concerning the above new capital expenditures.

Conclusion

9. The Committee has examined the cost estimates for the year 2000 and confirms that they have been drawn up in accordance with the Agreement and that:

- a) the number of regular personnel charged to the services does not exceed that specified in Section I of Annex III to the Agreement (as last amended by Council);
- b) the categories of costs charged to the services are in conformity with Section II, Parts A, B and C of Annex III to the Agreement (as last amended by Council); and
- c) indirect expenses on capital expenditures are based on the inventories in Annex II to the Agreement (as last amended by Council), except for the addition of the new capital expenditures indicated in paragraph 6 above.

Action by the Council

10. In view of the above, the Committee recommends that Council:

- a) decide that it is satisfied that the year 2000 cost estimates submitted by the Government of Iceland in JS-MT/1739 and summarized in Table 1 on page 3 above, amounting to US\$18 992 277, have been drawn up in accordance with Article VIII of the Agreement and with Annexes II and III thereto (as last amended by Council);
- b) approve the incorporation of the proposed new capital expenditures (US\$60 000), subject to audit, in Annex II to the Agreement, as shown in paragraph 6 above; and
- c) request the Secretary General to inform the Government of Iceland and other Contracting Governments of the above action.

L.T. Wilhelmy van Hasselt
Chairman, Joint Support Committee

END -

Attachment 7. Revised terms of reference of the Committee on Joint Support

Attachment to Doc C-WP/10499, reproduced:

The Committee on Joint Support of Air Navigation Services shall consider matters related to the provisions of financial or technical services for the improvement of air navigation facilities under the terms of Chapter XV of the Convention on International Civil Aviation referred to it by the Council or on its behalf by the President, and advise the Council thereon. Specifically, the Committee will:

- 1) Examine requests from the Contracting States for financial and technical services for the improvement of air navigation facilities, and advise the Council on their implementation.**
- 2) Examine recommendations made by ICAO regional air navigation meetings which indicate the probability of need for financial and technical support, and advise the Council thereon.**
- 3) Advise the Council on the initiation of consultations with interested States in particular cases arising under 1) and 2) and on the need for special international conferences in any such cases.**
- 4) Consider implementation of international agreements relating to the provisions of financial and technical services through ICAO, and advise the Council on the discharge of responsibilities given to the Organization.**
- 5) Receive reports on the progress of schemes relating to the provisions of financial and technical services through ICAO, and advise the Council accordingly.**
- 6) Advise the Council on acceptance and distribution of general monetary contributions made by Contracting States towards the cost of joint support schemes, and on the reimbursement of costs incurred by ICAO in connection with such schemes.**
- 7) Study channels and devices through which technical aid could be given for the operation of air navigation facilities and services and advise the Council thereon.**